

EDCP 471

Taxonomies of Creativity and Design

S. Petrina (2018)

1. Taxonomy or Typology of Creativity
 a. Eisner (1962, p. 13):

Table 1. General Characteristics of Each Type and Locus of Creativity

<i>Behavior</i>	<i>Locus</i>	<i>General Characteristics</i>
1	2	3
Boundary pushing	Subject	The extension of ordinary subject matter through novel combinations of such subject matter or through their novel elaboration
Boundary pushing	Form	The extension of common forms by the novel combination of such forms or by their novel elaboration
Inventing	Subject	The production of new subject matter through the combination of known subject matter
Inventing	Form	The production of new forms through the combination of known forms
Boundary breaking	Subject	The production of new subject matter through the creation of the completely new or through reversing the premises upon which old subject matter was developed
Boundary breaking	Form	The formulation of utterly new forms
Aesthetic organizing	Form	The ordering of specific forms so as to constitute a coherent, harmonious, and balanced whole.

b. Sternberg (1989, p. 89):

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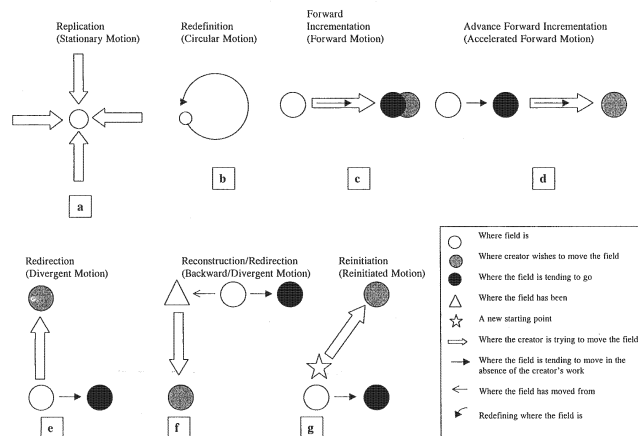


Figure 2. Types of creativity. a. Replication helps solidify the current state of a field. b. Redefinition involves a change in perception as to where the field is. c. Incrementation occurs when a piece of work takes the field where it is and moves it forward from that point in the space of contributions in the direction work is already going. d. Advance incrementation occurs when an idea is "ahead of its time." e. Redirection involves taking the field where it is at a given time but attempting to move it in a new direction. f. Reconstruction involves moving the field backward to a point it previously was at but then moving in a direction different from that it has moved in. g. Reinitiation occurs when a contributor suggests that a field or subfield has reached an undesirable point or has exhausted itself moving in the direction that it is moving. The contributor suggests moving in a different direction from a different point in the multidimensional space of contributions.

c. Sternberg (2006, pp. 96-97):

i. Types of Creativity That Accept Current Paradigms and Attempt to Extend Them

1. **Replication.** The contribution is an attempt to show that the field is in the right place. The propulsion keeps the field where it is rather than moving it forward. This type of creativity is represented by stationary motion, as of a wheel that is moving but staying in place.
2. **Redefinition.** The contribution is an attempt to redefine where the field is. The current status of the field thus is seen from different points of view. The propulsion leads to circular motion, such that the creative work leads back to where the field is but as viewed in a different way.
3. **Forward incrementation.** The contribution is an attempt to move the field forward in the direction it already is going. The propulsion leads to forward motion.
4. **Advance forward incrementation.** The contribution is an attempt to move the field forward in the direction it is already going but by moving beyond where others are ready for it to go. The propulsion leads to forward motion that is accelerated beyond the expected rate of forward progression.

ii. Types of Creativity That Reject Current Paradigms and Attempt to Replace Them

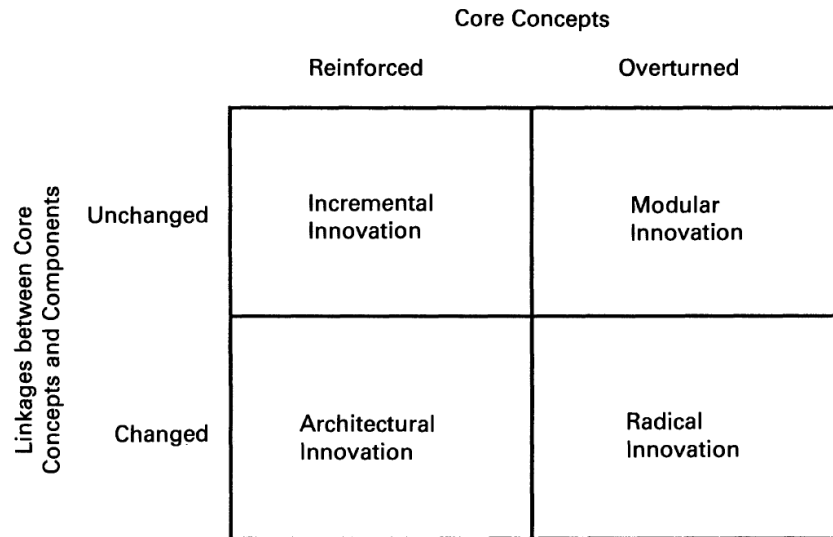
1. **Redirection.** The contribution is an attempt to redirect the field from where it is toward a different direction. The propulsion thus leads to motion in a direction that diverges from the way the field is currently moving.
2. **Reconstruction/Redirection.** The contribution is an attempt to move the field back to where it once was (a reconstruction of the past) so that it may move onward from that point, but in a direction different from the one it took from that point onward. The propulsion thus leads to motion that is backward and then redirective.
3. **Reinitiation.** The contribution is an attempt to move the field to a different, as-yet-unreached, starting point and then to move from that point. The propulsion is thus from a new starting point in a direction that is different from that the field previously has pursued.

iii. A Type of Creativity That Synthesizes Current Paradigms

1. **Integration.** The contribution is an attempt to integrate two formerly diverse ways of thinking about phenomena into a single way of thinking about a phenomenon. The propulsion thus is a combination of two different approaches that are linked together.

2. Taxonomy or Typology of Design

- a. Leahy & Gaughran (2009, p. 14):
 - i. Issue to discover: **knowledge**
 - ii. Doodle to design: **communication**
 - iii. Shape product to person: **form**
 - iv. Working to purpose: **function**
 - v. Model to make: **realisation**
 - vi. Improvements to changes: **evaluation**
- b. Henderson & Clark (1990, p. 12):



- c. See e.g., Petrina (2018). Content of design-based learning

3.