

Creativity in decision making

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Creativity - definition

There is a consensus about two dimensions that jointly comprise creativity:

- Novelty – being uncommon, unconventional, unique
- Value – when the proportion between benefits and costs is positive (or at least perceived as such)

- Summer, Pearson (2007): In decision making, novelty and value are complementary but separate characteristics.

A simple matrix – novelty and value (Neřcka, 2004)

	Novel	Well-known
Valuable		
Of no value		

Elite and egalitarian approaches to creativity

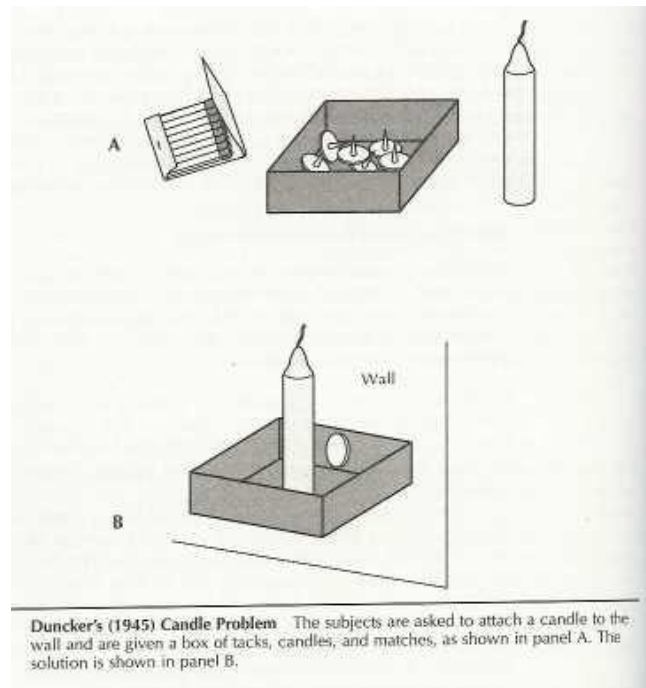
- High creativity - achieving something unusual and new, something that transforms and changes the field of activity in a significant way. Things that people do that change the world (Feldman, Csikszentmihalyi & Gardner, 2000)
- Ordinary creativity - applying knowledge and skills in a new way to achieve the desired goal (Seltzer and Bentley (1990)

Guilford – creative thinking dimensions

- Fluency – the number of relevant ideas
- Flexibility – the number of different categories to which responses belong
- Originality – the rarity of the responses – the extent to which they are uncommon
- These aspects can be measured with any test that involves divergent answers.

Functional fixedness – a barrier related to decreased creativity (and cognitive bias)

Duncker (1945):



Source: https://en.wikipedia.org/wiki/Functional_fixedness

A similar example (yet not the same)



Creative self-efficacy

- Defined as "the belief one has the ability to produce creative outcomes" (Farmer, Tierney, 2017)
- It has been found to be an antecedent of creativity (e.g., Pretz, Nelson, 2017)

Just as any kind of self-efficacy it has four sources:

- mastery experience
- social persuasion
- observing others
- physiological arousal

IDEO and the belief in creativity as a common feature

- https://www.ted.com/talks/david_kelley_how_to_build_your_creative_confidence
- It is an interesting company. If you would like to see their projects, investigate: <https://www.ideo.com/work>

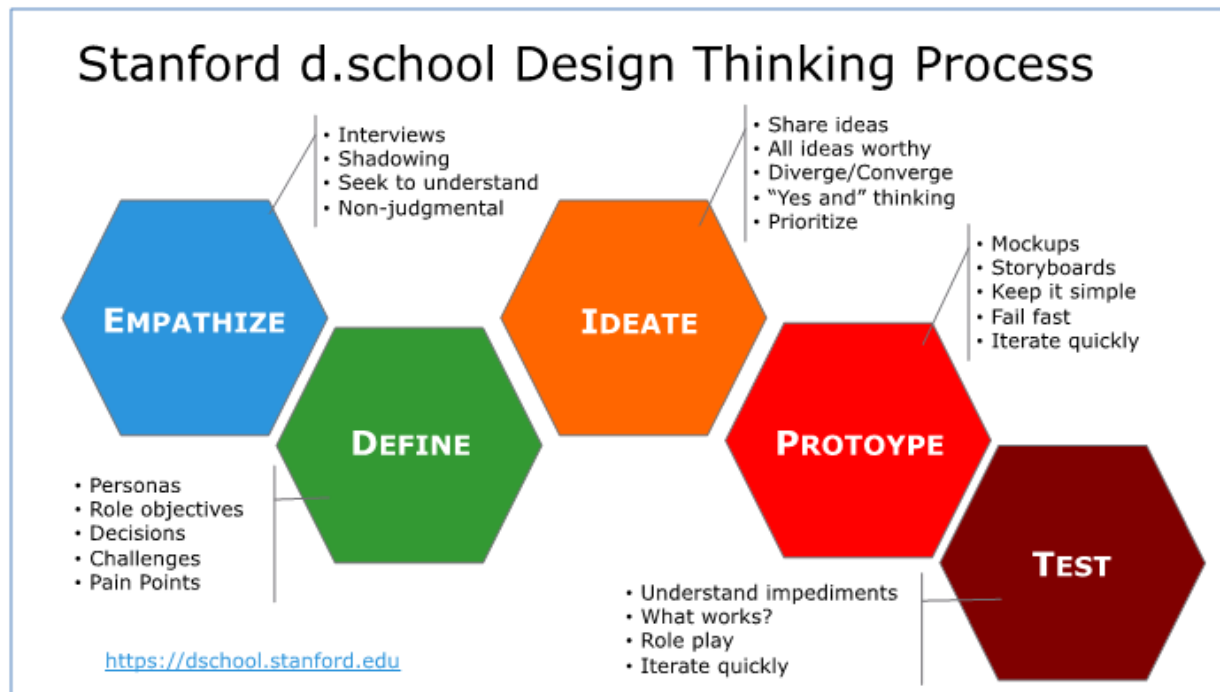
Creativity enhancing models and procedures

- Design Thinking
- TRIZ

These are of course just examples, but quite widely used ones
Each has its advantages and disadvantages

Design Thinking

- Developed by IDEO and Stanford University
- Very popular – including specialized University programs, business applications, special issues of serious scientific journals

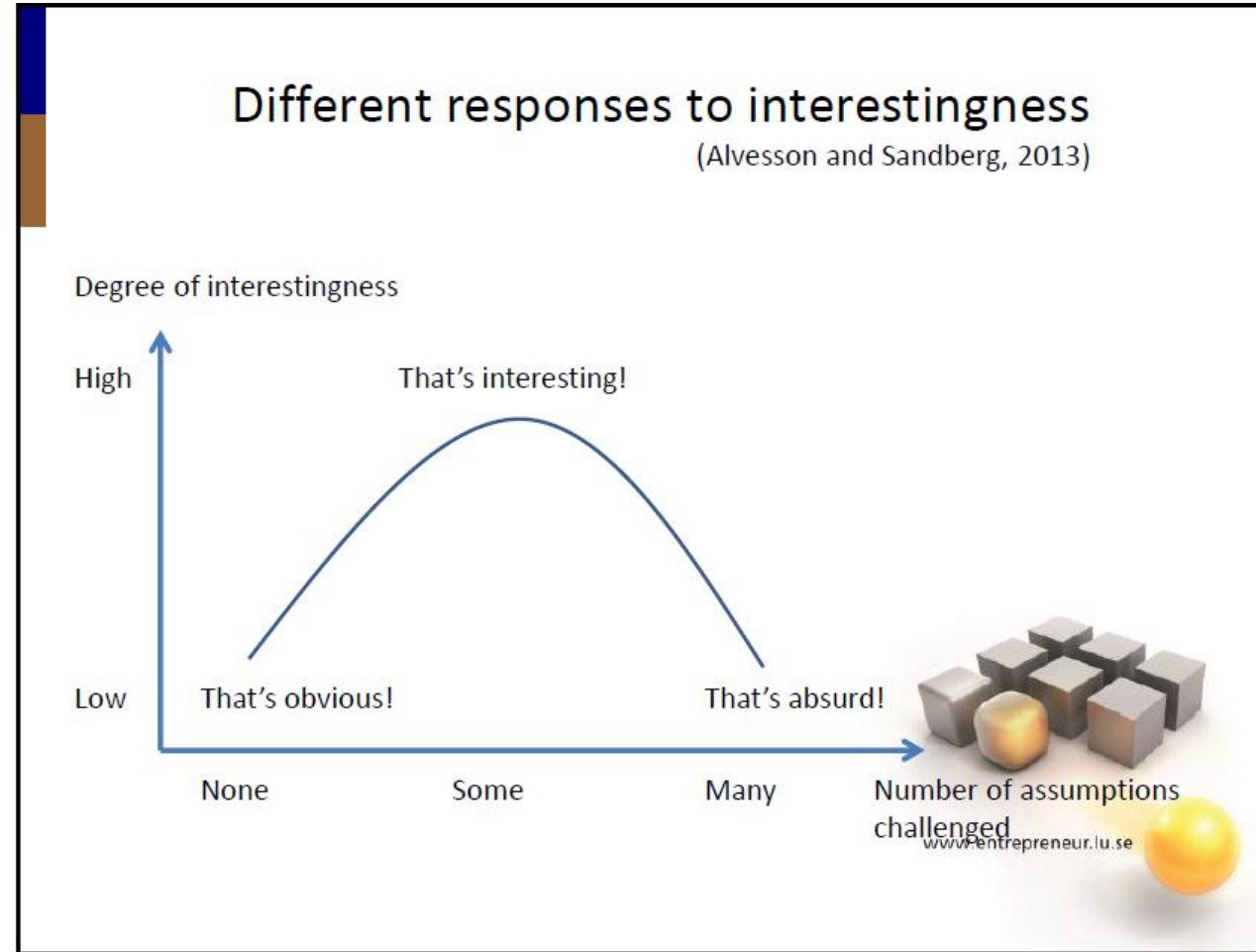


TRIZ

- Теория Решения Изобретательских Задач 😊
- Theory of Inventive Problem Solving

- Created by Altshuller, who investigated the character of inventions (patents were analyzed) and the way in which they solved various problems
- It provides a list of strategies which can be used to find an inventive solution
- Primarily used to solve technical problems, but instances of its utilization in e.g., managerial decision making have been successful

But is it always good to take creative decisions?



Source: Landström (2016)

Adam Grant and habits of original thinkers

1. Being late to the party



2. Being an improver



3. Being doubtful



4. Trying a lot



Sources and recommended readings

- Grant, A. M. (2017). *Originals: How non-conformists move the world*.
- Stoycheva, K. G., & Lubart, T. I. (2001). The nature of creative decision making. In *Decision making: Social and creative dimensions* (pp. 15-33). Springer, Dordrecht.
- Sommer, A., & Pearson, C. M. (2007). Antecedents of creative decision making in organizational crisis: A team-based simulation. *Technological Forecasting and Social Change*, 74(8), 1234-1251.
- Nęcka, E. (2012). *Psychologia twórczości*. Gdańskie Wydawnictwo Psychologiczne. (in Polish)
- IDEO case studies: <https://www.ideo.com/work>
- TRIZ – short video - explanation of the model: <https://bit.ly/2ZJwbu5>