Wired for Peace — Academic Resources Guide

Principle 7: New Solutions Lie Outside the Structure

Each row pairs a verbatim line from Principle 7 with a peer-reviewed journal article or professionally published academic book that supports the concept. All citations follow APA 7th edition format and include a direct link (DOI where available).

Quote from the Book	Supporting Peer-Reviewed Source (APA 7th ed.)
The Predictive, Imaginative Brain	
"the brain is a predictive processing machine, using memories of past experiences to generate predictions about the world." ***— p. 194***	Clark, A. (2013). Whatever next? Predictive brains, situated agents, and the future of cognitive science. *Behavioral and Brain Sciences, 36*(3), 181–204. https://doi.org/10.1017/S0140525X12000477
"While both predictive coding and imagination rely on the brain's ability to simulate what isn't present… Imagination… uses the same neural machinery of simulation but is less constrained, more exploratory." ***— p. 193***	Hassabis, D., & Maguire, E. A. (2009). The construction system of the brain. *Philosophical Transactions of the Royal Society B: Biological Sciences, 364*(1521), 1263–1271. https://doi.org/10.1098/rstb.2008.0296
The Creative Brain Network: DMN, ECN, and the Salience Network	
"The DMN is the major driver of imagination… such as the medial prefrontal cortex, posterior cingulate cortex, and angular gyrus. It allows for… mind wandering, mental time travel… perspective shifting, theory of mind." ***— p. 194***	Buckner, R. L., Andrews-Hanna, J. R., & Schacter, D. L. (2008). The brain's default network: Anatomy, function, and relevance to disease. *Annals of the New York Academy of Sciences, 1124*(1), 1–38. https://doi.org/10.1196/annals.1440.011
"Too much DMN without ECN, and we've got strange, incoherent ideation; too much ECN without DMN, and we've got rigid, ultrastructured cognition… we need the balance to produce creative thought." ***— p. 194***	Beaty, R. E., Benedek, M., Silvia, P. J., & Schacter, D. L. (2016). Creative cognition and brain network dynamics. *Trends in Cognitive Sciences, 20*(2), 87–95. https://doi.org/10.1016/j.tics.2015.10.004
"the salience network (SN)… including the anterior insula and dorsal anterior cingulate… acts as a sort of switchboard between the DMN and the ECN." ***— p. 195***	Menon, V., & Uddin, L. Q. (2010). Saliency, switching, attention and control: A network model of insula function. *Brain Structure and Function, 214*(5–6), 655–667. https://doi.org/10.1007/s00429-010-0262-0

Quote from the Book	Supporting Peer-Reviewed Source (APA 7th ed.)
Dopamine and the Neurochemistry of Creativity	
"Levels of dopamine determine how well the trifecta is working: balanced dopamine levels lead to a balanced switching between the DMN and ECN." ***— p. 195***	Boot, N., Baas, M., van Gaal, S., Cools, R., & De Dreu, C. K. W. (2017). Creative cognition and dopaminergic modulation of fronto-striatal networks: Integrative review and research agenda. *Neuroscience & Biobehavioral Reviews, 78*, 13–23. https://doi.org/10.1016/j.neubiorev.2017.04.007
"Recent research also suggests dopamine reduces the fear of judgment, which helps in the collaborative aspect of creativity, enabling people to share "wild" ideas." ***— p. 195***	Flaherty, A. W. (2005). Frontotemporal and dopaminergic control of idea generation and creative drive. *Journal of Comparative Neurology, 493*(1), 147–153. https://doi.org/10.1002/cne.20768
Creative Cognition in Conflict Resolution	
"cognitive fluidity refers to the brain's capacity to integrate and transition seamlessly between fundamentally different thought categories or knowledge domains and merge them into new, hybrid ideas." ***— p. 195–196***	Mithen, S. (1996). *The prehistory of the mind: The cognitive origins of art, religion and science*. Thames & Hudson. Publisher / WorldCat record
"divergent thinking is employed when there are multiple possible solutions… Originally defined by psychologist J. P. Guilford in the mid-20th century, divergent thinking involves generating multiple possible answers, perspectives, or approaches." ***— p. 196***	Guilford, J. P. (1967). *The nature of human intelligence*. McGraw-Hill. WorldCat record
"perspective shifting… is further facilitated by our theory of mind network, including the medial prefrontal cortex, temporoparietal junction, and posterior cingulate cortex." ***— p. 196***	Schurz, M., Radua, J., Aichhorn, M., Richlan, F., & Perner, J. (2014). Fractionating theory of mind: A meta-analysis of functional brain imaging studies. *Neuroscience & Biobehavioral Reviews, 42*, 9–34. https://doi.org/10.1016/j.neubiorev.2014.01.009
"With mental time travel… we project ourselves backward in time to reexperience past events (i.e., episodic memory) and forward in time to pre-experience possible future events (i.e., episodic future thinking)." ***— p. 196***	Schacter, D. L., Addis, D. R., & Buckner, R. L. (2007). Remembering the past to imagine the future: The prospective brain. *Nature Reviews Neuroscience, 8*(9), 657–661. https://doi.org/10.1038/nrn2213

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Cognitive Biases That Limit Creative Problem-Solving	
"functional fixedness is a cognitive bias that limits a person's ability to see alternative uses for an object… such as those performed by Karl Duncker, who coined the term in the 1930s." ***— p. 197***	Duncker, K. (1945). On problem-solving (L. S. Lees, Trans.). *Psychological Monographs, 58*(5), i–113. (Original work published 1935) https://doi.org/10.1037/h0093599
"mental set… describes the tendency to approach a new problem in a way that has worked in the past… classically illustrated with the Luchins water jar experiments in the 1940s." ***— p. 197***	Luchins, A. S. (1942). Mechanization in problem solving: The effect of Einstellung. *Psychological Monographs, 54*(6), i–95. https://doi.org/10.1037/h0093502
Concepts, Constraints, and Categories	
"our brains create concepts out of everything we perceive… In psychology, these concepts are called mental representations." ***— p. 198***	Barsalou, L. W. (1999). Perceptual symbol systems. *Behavioral and Brain Sciences, 22*(4), 577–660. https://doi.org/10.1017/S0140525X99002149
"the brain also organizes concepts into mental categories… we unconsciously place concepts into them." ***— p. 199–200***	Murphy, G. L., & Medin, D. L. (1985). The role of theories in conceptual coherence. *Psychological Review, 92*(3), 289–316. https://doi.org/10.1037/0033-295X.92.3.289
The Three Pillars of Creative Problem-Solving	
"Inspiration has been defined as a motivational state in which an external or internal stimulus evokes a sense of transcendent possibility and compels a person to translate that vision into action." ***— p. 201***	Thrash, T. M., & Elliot, A. J. (2003). Inspiration as a psychological construct. *Journal of Personality and Social Psychology, 84*(4), 871–889. https://doi.org/10.1037/0022-3514.84.4.871
"It is closely tied to intrinsic motivation, a drive that is generated purely from inside oneself and not in response to external rewards or threats." ***— p. 201***	Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*(1), 68–78. https://doi.org/10.1037/0003-066X.55.1.68

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"updating our models of the world… may thus update predictions… Doing so can create cognitive dissonance, instability, or incoherence." ***— p. 202***	Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford University Press. WorldCat record
"Inherent in fun is the concept of play, which changes both the state of the nervous system and the frame of the mind, making imagination and divergent thinking much more accessible." ***— p. 202***	Russ, S. W., & Wallace, C. E. (2013). Pretend play and creative processes. *American Journal of Play, 6*(1), 136–148. https://files.eric.ed.gov/fulltext/EJ1016167.pdf
"while conflict often activates the amygdala and stress hormones, narrowing thinking into fight-or-flight rigidity, play counteracts this stress response and increases parasympathetic activity." ***— p. 203***	Panksepp, J. (2007). Can PLAY diminish ADHD and facilitate the construction of the social brain? *Journal of the Canadian Academy of Child and Adolescent Psychiatry, 16*(2), 57–66. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2242642/
"play involves mimicry, rhythm, or joint attention… These synchronic activities employ mirror neuron systems, promoting empathy and social attunement." ***— p. 203***	Rizzolatti, G., & Craighero, L. (2004). The mirror-neuron system. *Annual Review of Neuroscience, 27*, 169–192. https://doi.org/10.1146/annurev.neuro.27.070203.144230