



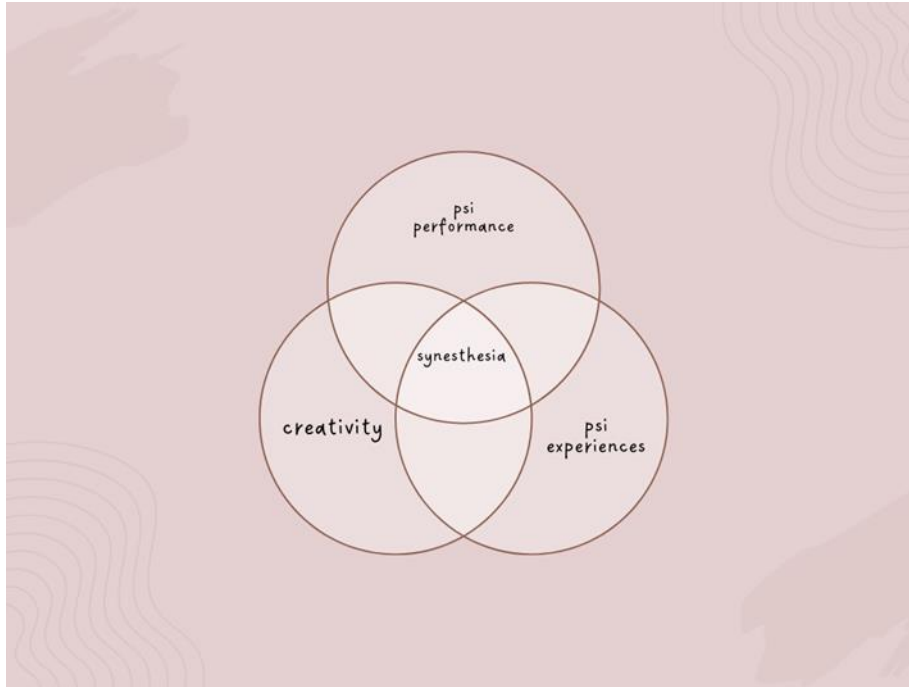
UNIVERSITY OF WEST GEORGIA

Connections, sensitivity and tangible representations: Unpacking some correlates of creativity and exceptional experiences

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Shared variance.....



Psi experiences



- “A range of unusual behavioural and cognitive experiences that challenge current understanding and are, at present, difficult to explain” (Vernon, 2021)

Creativity

- *“the ability to produce a production that is both new and adapted to the context in which it occurs”* (Lubert et al, 2015, p.123)
- Involving divergent processes (idea generation) and convergent processes (innovative solutions)
- Overlaps between creativity, psi experiences and performance at psi tasks (e.g., Jenkins, 2015; Watt et al., 2020; Holt, 2013)

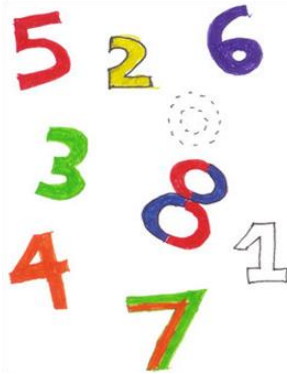


Synesthesia as a core variable

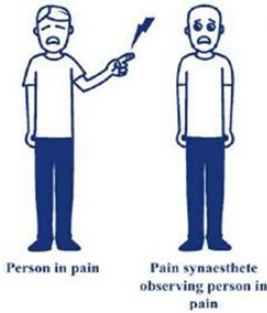
Synesthesia occurs when an inducing stimulus (the inducer) results in the usual response *plus* an additional response (the concurrent)

Some common forms include:-

Grapheme-color

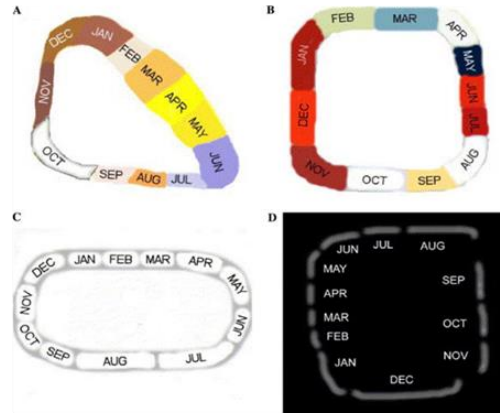


Mirror-touch



B.M. Fitzgibbon et al, 2010

Time-Space



7 clusters (Ward et al., 2022):-

1. Language-colour
2. Language-taste
3. Personification
4. Visualized sensations
5. Sequence-space
6. Language-touch
7. Smell-taste



Ordinal linguistic personification



Correlates of synesthesia 1 - psi experiences

- Synesthesia is associated with a range of psi experiences (Simmonds-Moore, Alvarado & Zingrone, 2020)
- ASMR also relates to a range of psi experiences (Simmonds-Moore, 2022)
- Possible association with psi? (Marwaha & May, 2015; Sako & Honmaza, 1997; Simmonds-Moore, 2013)



Correlates of synesthesia 2 - creativity

- Strongly associated with creativity and creative involvement (see Lunke, & Meier, 2019)
- Synesthesia may be linked to a broader phenotype that includes psi experiences, creativity, and mental imagery (Banissy et al., 2011; Simmonds-Moore, Alvarado & Zingrone, 2020; Ward, 2019)
 - Relates to transliminality (Lange et al., 2019) and to positive schizotypy (Simmonds-Moore, Alvarado & Zingrone, 2020)



Harry's synesthesia and how it interplays with psi experiences and creativity

Table 1. A summary of the themes and their meanings.

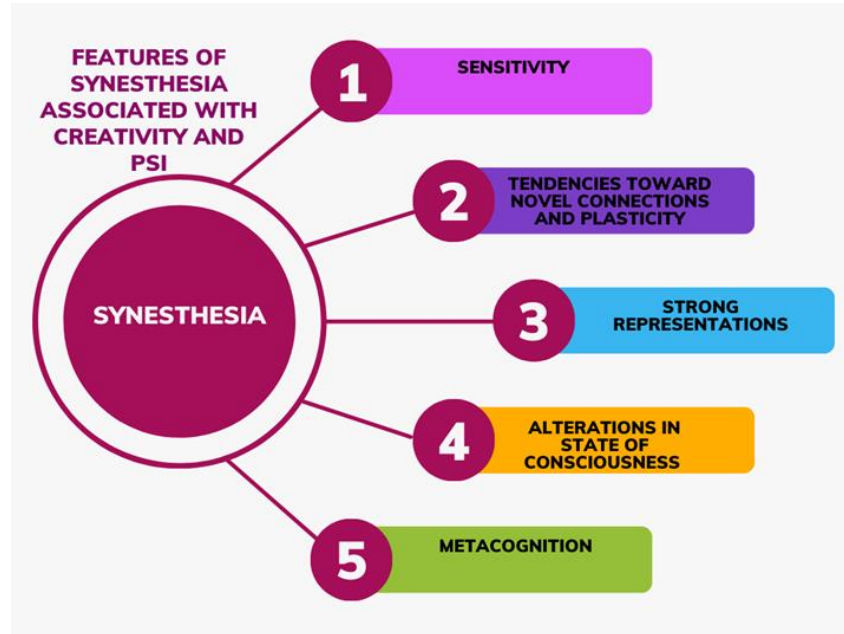
Theme	Theme Meaning
1. Relationship with synesthesia: emotion, identity, hiding paradox and being not normal	An evolving relationship with synesthesia, such that it was once appraised negatively, but is now embraced positively.
2. Complex kaleidoscope of representational experiences	A multi layered, multi colored organizational system of representation of aspects of Harry's experiential world.
3. Access to information and meaning; specificity of qualia and emotion	Specific color codes and emotions enable access to information and meaning.
4. Control of synesthesias and metacognition	Ability to switch synesthesia on or off via attention, emotion and by consumption of substances.
5. Exceptional abilities	Synesthesia may enable a variety of exceptional experiences, including memory, mathematics, improvisation of music and exceptional experiences including auras, lucid dreams and precognitive dreams.

Christine A. Simmonds-Moore (2016) An interpretative phenomenological analysis exploring synesthesia as an exceptional experience: insights for consciousness and cognition, *Qualitative Research in Psychology*, 13:4, 303-327, DOI:10.1080/14780887.2016.1205693



Different nervous systems

- Humans are unable to detect and perceive all information
- Some nervous systems may be wired differently (optimized sensory processing associated with synesthesia, after Ward, 2019) and detect, consciously perceive **more** than others



Increased sensitivity

- Optimized sensory processing allows for more information to enter the system from various sources
- Sensitivity as a core feature of synesthesia (Ward, 2019; Ward et al., 2017)
- Sensitivity correlates with psi experiences (Williams et al., 2022), and creativity (Bridges, & Schendan, 2019)
- Hyperaesthesia and optimized sensitivity in transliminality (Lange et al, 2019)



Plasticity and tendencies to make connections

- Hyperconnectivity in synesthesia (see Maurer et al., 2020) and psi (Marwaha & May, 2015)
- Neuroplasticity and syncretic cognitions in transliminality (Lange et al., 2019)
- Loose cognitions and associational processing in creativity (Kenett et al., 2014), synesthesia (Meier, 2013) and psi experiences (Farias et al., 2005)
- Apophenia relates to paranormal ideation and creativity (Romminer et al., 2022)

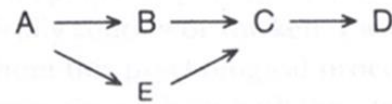
The New York Times **Games**



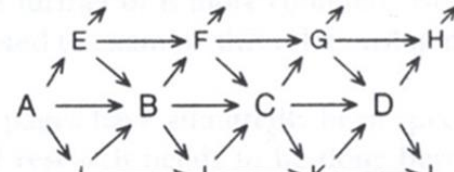
Connections



THICK
BOUNDARIES:



THIN
BOUNDARIES:



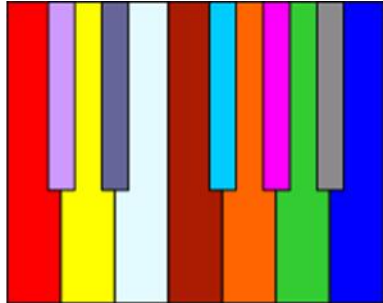
Greater influence of unconscious processes

- The influence of information that is usually outside or *at the edges of awareness* or attention plays a role in
 - Creativity (Rebecchi & Hagege, 2022)
 - Transliminality (Lange et al., 2019)
 - Synesthesia (Ward et al., 2018)
 - Psi experiences and psi (Holt et al., 2020; Cardeña, 2020; Carpenter, 2004:2005)
- Synesthetic experiences can emerge in altered states (Walsh, 2005; Cardeña, 2005; Luke & Terhune, 2013; Nair & Brang, 2019) and inspire creativity (Linton, 2015)



Tangible mental representations

- Imagery vividness is associated with synaesthesia (Price 2013; Spiller et al., 2015), creativity (Zeman et al., 2020), psi experiences (Hume & Lawrence, 2005) and psi (Storm, 2023)
- Stronger representations in synaesthesia (Terhune et al. 2013)
- Syncretic processes in transliminality (Lange et al., 2019)
- Synaesthetic concurrents and syncretic processes provide concrete labels or “codes” for specific inducing stimuli (including some that are unconscious) via stronger or more vivid qualia and access to meaning



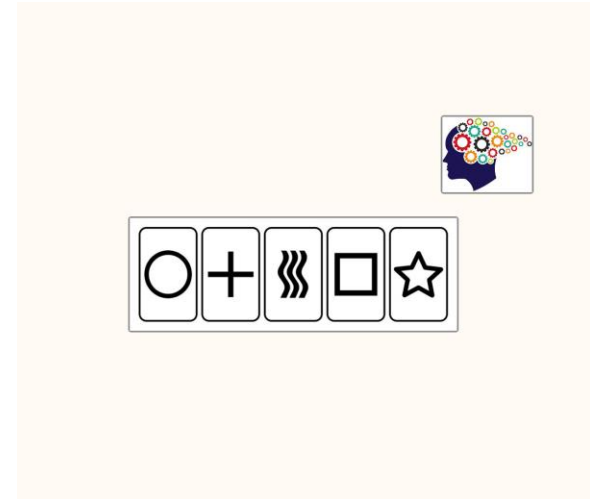
Healthy versus less healthy systems

- For some, there is too much information available to awareness, which may be overwhelming and experienced negatively
- For others, it is possible to control access to information via dynamic movement between modes of attention and ways of thinking
 - Dynamic movement between different modes of cognition and states in creativity (Girn et al, 2020); “epistemological flexibility” (Holt, 2007)
- Healthy v. less healthy profiles of those who report psi experiences [schizotypy] (Alminhana & Moreira-Almeida, 2014; Alminhana et al., 2017; Grant & Hennig, 2020; Mohr & Claridge, 2015)
 - Healthy profile in synaesthesia (Simmonds-Moore et al., 2019), creativity (Holt, 2019; Nettle, 2005) and psi (Holt et al, 2020)



Conclusions: A complex recipe

- More information registers in the system
- Tendencies toward making connections fuses information into an interconnected, vivid and concrete form that is accessible
- Metacognitive abilities allow controlled movement into different states, for images to be manipulated, for meaning to be accessed and for connections to be made with wider cognitive architecture *and within the social context*



Thank you for your attention!

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