# *Occupational Psychology Outlook* (*OPO*)

# This is a pre-publication version of the following article: Ilbury, L. M., Fine, P. A., & Friedlander, K. J. (2024). Sensitive creators at work. *Occupational Psychology Outlook*, *3*(1). DOI: <https://doi.org/10.53841/bpsopo.2024.3.1.28>

The version of record of this article, published in *OPO*, is available online at Publisher’s (The British Psychological Society) website: <https://explore.bps.org.uk/content/bpsopo/3/1/28>

This pre-publication version of this article published in *OPO* has been uploaded to this repository with Green Open Access. Creative Commons Attribution Non-Commercial Licence (CC-BY-NC-ND 4.0): <https://creativecommons.org/licenses/by-nc/4.0/>

# Title: Sensitive creators at work

Authors: Lucinda M. Ilbury CPsychol.

Dr Philip A. Fine

Dr Kathryn J. Friedlander

Affiliation: University of Buckingham

Corresponding Author: Lucinda Ilbury

lucinda.ilbury.03@buckingham.ac.uk

lucindamilbury@gmail.com

Word Count: 1998

# Sensitive creators at work

*Creativity appears to be important to both organisational performance and employee wellbeing but understanding of the individual differences that support the creative process is incomplete. High sensitivity of the nervous system - to both internal bodily states and external context – has been associated with creative potential in the wider psychological literature, but occupational research into sensitivity is sparse. Research that has explored sensitivity in the workplace tends to focus on the vulnerabilities of the trait, such as stress and burnout. This commentary paper calls for further research into the relationship between sensitivity and creativity in the workplace, which has the potential to inform applied practice in the context of both employee wellbeing and talent management to the benefit of highly sensitive employees and their employers.*

**Key words:** Creativity; Individual Differences; High Sensitivity; Wellbeing; Talent Management

## The value of creative work

Acts of creativity of all shapes and sizes can amount to significant organisational gains, and also have the potential to enhance employee wellbeing. Creativity - the production of novel and effective ideas or outcomes (Runco & Jaeger, 2012) - is a key employee capability that supports long-term organisational performance. When employees generate useful ideas for new services, products or processes it enables an organisation to make progress towards its goals (Amabile et al., 2005; Amabile & Pratt, 2016), supports innovation and helps secure and sustain competitive advantage (Anderson et al., 2014; Jackson & Schuler, 1990). Ideas don't have to be revolutionary or limited to creative industries or professions; small, everyday creative acts can add up to yield substantial organisational benefits. An employee might, for example, identify a minor improvement to providing frontline customer service or find a creative way to engage their team in organisational change. Such ideas, in aggregate, could improve broader customer satisfaction and increase employee engagement. As a result, creative potential is a valuable focus for organisations when identifying and developing talent.

Everyday creativity also appears to offer myriad benefits to individual wellbeing (Acar et al., 2021; Holinger & Kaufman, 2023). The very act of creating appears to improve life satisfaction and reduce perceived stress (Fiori et al., 2022), provides a sense of social connection (Piechowski-Jozwiak et al., 2017), and promotes social equality and greater perceived meaning in life (Kaufman, 2018). Positive wellbeing appears, in turn, to increase creative outputs (Smith et al., 2022), feeding a cycle of reciprocal organisational and individual-level benefits. As such, encouraging creative contributions at work might both support employee wellbeing and enhance creativity itself. Individuals seem to differ, though, in their drive and ability to create and, given the benefits of creativity, these differences appear important to understand.

## Understanding the creative person

Gaps persist in understanding which individual differences predict real-world creativity and this has implications both for identifying and nurturing creative potential and for determining which individuals might benefit most from creative work in terms of their wellbeing. Divergent Thinking (DT) and Openness to Experience (O2E), although apparently involved, have a number of explanatory limitations. DT, characterised as generating multiple ideas or solutions (e.g., Guilford, 1950, 1967), seems necessary but insufficient to explain real-world creativity (Batey & Furnham, 2006). Likewise, the personality dimension of O2E in the Five Factor Model (FFM) (e.g., McCrae & Costa, 1985) describes certain behavioural tendencies that are correlated with creativity (Feist, 1998) but does not provide a comprehensive causal understanding of how such tendencies contribute to creative thinking. This is because the FFM lacks a broader framework that would explain the underlying psychological mechanisms involved in creative cognition (McAdams, 1992). The creative process also involves distinct, non-linear stages, such as problem-finding, ideation and evaluation (Runco & Chand, 1995) indicating a need for flexible tendencies and thinking styles across these stages (Nijstad et al., 2010). Constructs such as motivation, interest and expertise also play crucial roles (Baer & Kaufman, 2005). As such, relying solely on narrow constructs such as DT or O2E alone may fail to capture the full essence of creativity, potentially overlooking how each operates and interacts with other constructs throughout the creative process.

The environment also plays a crucial role in both inspiring new ideas and determining whether ideas are judged as creative. Finding problems to solve and arriving at insightful solutions relies not only on internal thoughts and feelings, but also on input from the external world. Socio-cultural factors – such as the views of organisational stakeholders – also determine whether ideas are accepted as creative at all (Amabile & Pratt, 2016; Csikszentmihalyi, 1999). Highly creative employees must, therefore, remain attuned to both internal and external influences that not only inspire them but affect receptivity to their ideas. Consequently, understanding how individuals differ in their sensitivity appears crucial to exploring why some people are more creative than others and how the world around them affects their creativity.

## The role of sensitivity in creative differences

High sensitivity, often observed in creative individuals, offers a more complete account of how differences in creativity arise. Research has demonstrated the involvement of facets of sensitivity in creativity (e.g., aesthetic sensitivity from the FFM; Perrine & Brodersen, 2005), but anecdotal accounts of creative people suggest a more holistic difference. Sensitivity as a broader trait is discussed in a diffuse body of literature, largely across the educational and clinical fields (see Table 1, and also Aron, 2004; Aron et al., 2012; Bridges & Schendan, 2019a; Greven et al., 2019). Despite subtle differences between theories, there appears general agreement that high sensitivity affects a minority (approximately 10-35% of individuals across multiple species, Aron et al., 2012) and is rooted in biologically-based differences in nervous system responsiveness. This sensitivity extends to both bodily states and external context, influencing cognition, personality and motivation. Moreover, it amplifies the impact of positive and negative environments and provides a broader model of psychological and indeed physiological functioning that may more fully explain complex variables such as creativity (Bridges & Schendan, 2019a, 2019b).

Table 1: Selected theories of sensitivity

|  |  |  |
| --- | --- | --- |
| Author  | Theory | Overview |
| *Dabrowski (1964)* | *Overexcitabilities (OEs)* | *Physiologically-based qualities (OEs) that increase responsiveness to different forms of environmental and internal stimulation.*  |
| *Gray (1982)* | *Behavioural inhibition and approach systems (BIS/BAS)* | *Sensitivity of the serotonergic and dopaminergic systems that inhibit or activate behaviour respectively.*  |
| *Aron & Aron (1997)* | *Sensory Processing Sensitivity (SPS)* | *A biologically-based trait related to deep information processing (Craik & Lockhart, 1972), driven by emotional responsiveness (Aron et al., 2012).*  |
| *Boyce & Ellis (2005)* | *Biological sensitivity to context*  | *Plasticity in the arousal response with positive and negative implications dependent on environmental conditions.*  |
| *Evans & Rothbart (2007)*  | *Orienting sensitivity*  | *A biologically-based temperament factor characterised by perceptual, associative and affective sensitivity with implications for behavioural, social and cognitive development.*  |
| *Pluess (2015)* | *Environmental sensitivity*  | *Genetically-determined sensitivity, predisposing to difficulty in challenging environments (diathesis-stress), yet benefiting most from positive events (vantage sensitivity).*  |

While sensitivity is a discrete construct, it enhances our understanding of the creative process by complementing findings related to the role of DT, O2E and the environment. Sensitivity not only correlates with DT (Bridges & Schendan, 2019b), but also provides insight into the emergence of DT - through the deep processing of stimuli to guide behaviour (Aron et al., 2012). Research suggests that while moderate correlations exist with O2E, alongside Introversion and Neuroticism from the FFM (Aron & Aron, 1997), sensitivity may reflect an overarching meta-trait (Aron et al., 2012; Harms et al., 2019) or even O2E’s biological core (Evans & Rothbart, 2007), given that environmental conditions appear to influence personality tendencies amongst the highly sensitive (Aron & Aron, 1997; Pluess et al., 2010). Sensitivity might, therefore, help to explain how higher-order cognitive and non-cognitive qualities such as DT and O2E arise. The highly sensitive also appear especially attuned to external inspiration such as aesthetics (Smolewska et al., 2006) and anticipated social evaluations of their behaviour and ideas (Aron et al., 2012), and this could help individuals to be more flexible in how they think and behave, which is beneficial for the creative process. This suggests value in research directly exploring the relationship between creativity and sensitivity.

Outside of the occupational literature the relationship between sensitivity and creativity is supported by a burgeoning evidence-base. This includes greater instances of creative insight when problem solving amongst those who are highly sensitive (Lin et al., 2013), professional artists appearing more sensitive than non-artists (Piechowski & Cunningham, 1985), and high sensitivity corresponding with more creative achievements across the arts and sciences (Bridges & Schendan, 2019b; Carson et al., 2003). There would, therefore, appear to be strong creative potential amongst the highly sensitive from which organisations may benefit.

## Other advantages of being sensitive

Beyond creativity, other strengths of sensitivity relevant to the workplace appear to include increased learning capacity, prosocial behaviour and entrepreneurship. Sensitivity seems a common trait amongst intellectually gifted children and adults (Limont et al., 2014; Rinn et al., 2018) and the highly sensitive may demonstrate greater levels of implicit learning (Greven et al., 2019), a possible predictor of workplace performance (Montuori & Montefiori, 2022). Moral reasoning and empathy are associated with the trait (Aron et al., 2012; Bas et al., 2021), with potential to facilitate ethical business practice and positive interpersonal relationships. And Harms et al. (2019) suggest sensitivity might support entrepreneurship, offering an alternative to the traditional notion of the highly extroverted ‘superhero’ entrepreneur persona. Sensitive individuals appear to have much to offer, yet there is a paucity of research into sensitivity in the workplace and the research that does exist tends to focus on the vulnerabilities of the trait.

## Is sensitivity double-edged in the workplace?

While sensitivity brings many strengths, it's worth noting that not all workplaces fully appreciate its value. Previous occupational research has emphasised the vulnerabilities of highly sensitive people, such as a greater risk of occupational stress and burnout (Elst et al., 2019; Evers et al., 2008; Meyerson et al., 2020). This research backdrop, although clearly crucial, overlooks the opportunity for organisations to benefit from the more inherent talents of the highly sensitive. Elst et al. (2019) also highlight that, while the highly sensitive suffer most from the demands of work, they benefit most from resources that support wellbeing. This aligns with a central feature of high sensitivity: it is both for better and for worse (Belsky et al., 2007) and under positive conditions, individuals with the trait may have more to offer their organisations than most. As such, investing in positive work conditions for the highly sensitive offers promise not only in terms of improved employee wellbeing, but could nurture talents of direct benefit to an organisation.

## Further research

There is therefore a need to rebalance sensitivity research in the workplace to better understand the creative potential of the highly sensitive and to offer applied value for both wellbeing and talent management. Occupational psychologists are uniquely positioned to lead such research given their focus on non-clinical adult populations, broad understanding of managing both talent and wellbeing, and dedication to both individual and organisational-level outcomes.

Research into the relationship between creativity and sensitivity could help determine the value of assessing sensitivity when identifying and nurturing creative talent. And there’s potential value in exploring whether providing more opportunity for the highly sensitive to contribute creatively at work can itself improve wellbeing. As discussed, creative acts appear to support wellbeing in general, but may especially benefit the highly sensitive who seem inherently creative and benefit most from positive environmental factors. In practical terms, such research would inform job design, recruitment and development, management practice, and training or coaching of sensitive employees to realise their creative potential. In turn, these initiatives might reduce the need to address the vulnerabilities associated with being highly sensitive. And, since wellbeing also increases creativity, there is the potential of win-win outcomes for highly sensitive employees and the organisations for whom they work.

In summary, further research is needed into how to optimise the conditions in which the highly sensitive thrive rather than just survive at work, this bringing potential benefits both for individuals and for organisations. In the end, this might simply involve affording sensitive individuals more opportunity to do what they appear naturally compelled to do: create.

## References

Acar, S., Tadik, H., Myers, D., van der Sman, C., & Uysal, R. (2021). Creativity and Well-being: A Meta-analysis. *The Journal of Creative Behavior*, *55*(3), 738–751. https://doi.org/10.1002/jocb.485

Amabile, T., Barsade, S., Mueller, J., & Staw, B. (2005). Affect and Creativity at Work. *Administrative Science Quarterly*, *50*. https://doi.org/10.2189/asqu.2005.50.3.367

Amabile, T. M., & Pratt, M. G. (2016). The dynamic componential model of creativity and innovation in organizations: Making progress, making meaning. *Research in Organizational Behavior*, *36*, 157–183. https://doi.org/10.1016/j.riob.2016.10.001

Anderson, N., Potočnik, K., & Zhou, J. (2014). Innovation and Creativity in Organizations: A State-of-the-Science Review, Prospective Commentary, and Guiding Framework. *Journal of Management*, *40*. https://doi.org/10.1177/0149206314527128

Aron, E. N. (2004). Revisiting Jung’s concept of innate sensitiveness. *Journal of Analytical Psychology*, *49*(3), 337–367. https://doi.org/10.1111/j.1465-5922.2004.00465.x

Aron, E. N., & Aron, A. (1997). Sensory-processing sensitivity and its relation to introversion and emotionality. *Journal of Personality and Social Psychology*, *73*(2), 345–368. https://doi.org/10.1037/0022-3514.73.2.345

Aron, E. N., Aron, A., & Jagiellowicz, J. (2012). Sensory Processing Sensitivity: A Review in the Light of the Evolution of Biological Responsivity. *Personality and Social Psychology Review*, *16*(3), 262–282. https://doi.org/10.1177/1088868311434213

Baer, J., & Kaufman, J. (2005). Bridging Generality and Specificity: The Amusement Park Theoretical (APT) Model of Creativity. *Roeper Review*, *27*. https://doi.org/10.1080/02783190509554310

Bas, S., Kaandorp, M., Kleijn, Z., Braaksma, W., Bakx, A., & Greven, C. (2021). Experiences of Adults High in the Personality Trait Sensory Processing Sensitivity: A Qualitative Study. *Journal of Clinical Medicine*, *10*, 4912. https://doi.org/10.3390/jcm10214912

Batey, M., & Furnham, A. (2006). Creativity, Intelligence, and Personality: A Critical Review of the Scattered Literature. *Genetic, Social, and General Psychology Monographs*, *132*, 355–429. https://doi.org/10.3200/MONO.132.4.355-430

Belsky, J., Bakermans-Kranenburg, M. J., & van IJzendoorn, M. H. (2007). For Better and For Worse: Differential Susceptibility to Environmental Influences. *Current Directions in Psychological Science*, *16*(6), 300–304. https://doi.org/10.1111/j.1467-8721.2007.00525.x

Boyce, W., & Ellis, B. (2005). Biological sensitivity to context: I. An evolutionary-developmental theory of the origins and functions of stress reactivity. *Development and Psychopathology*, *17*, 271–301. https://doi.org/10.1017/S0954579405050145

Bridges, D., & Schendan, H. (2019a). Sensitive individuals are more creative. *Personality and Individual Differences*. https://doi.org/10.1016/j.paid.2018.09.015

Bridges, D., & Schendan, H. (2019b). The sensitive, open creator. *Personality and Individual Differences*. https://doi.org/10.1016/j.paid.2018.09.016

Carson, S. H., Peterson, J. B., & Higgins, D. M. (2003). Decreased Latent Inhibition Is Associated With Increased Creative Achievement in High-Functioning Individuals. *Journal of Personality and Social Psychology*, *85*(3), 499–506. https://doi.org/10.1037/0022-3514.85.3.499

Craik, F. I. M., & Lockhart, R. S. (1972). Levels of processing: A framework for memory research. *Journal of Verbal Learning and Verbal Behavior*, *11*(6), 671–684. https://doi.org/10.1016/S0022-5371(72)80001-X

Csikszentmihalyi, M. (1999). Implications of a systems perspective for the study of creativity. In R. J. Sternberg (Ed.), *Handbook of creativity* (pp. 313–335). Cambridge University Press.

Dabrowski, K. (1964). *Positive disintegration*. Little, Brown, & Company.

Elst, T. V., Sercu, M., Broeck, A. V. den, Hoof, E. V., Baillien, E., & Godderis, L. (2019). Who is more susceptible to job stressors and resources? Sensory-processing sensitivity as a personal resource and vulnerability factor. *PLOS ONE*, *14*(11). https://doi.org/10.1371/journal.pone.0225103

Evans, D., & Rothbart, M. (2007). Developing a model of adult temperament. *Journal of Research in Personality*, *41*, 868–888. https://doi.org/10.1016/j.jrp.2006.11.002

Evers, A., Rasche, J., & Schabracq, M. (2008). High Sensory-Processing Sensitivity at Work. *International Journal of Stress Management*, *15*, 189–198. https://doi.org/10.1037/1072-5245.15.2.189

Feist, G. (1998). A Meta-Analysis of Personality in Scientific and Artistic Creativity. *Personality and Social Psychology Review : An Official Journal of the Society for Personality and Social Psychology, Inc*, *2*, 290–309. https://doi.org/10.1207/s15327957pspr0204\_5

Fiori, M., Fischer, S., & Barabasch, A. (2022). Creativity is associated with higher well-being and more positive COVID-19 experience. *Personality and Individual Differences*, *194*, 111646. https://doi.org/10.1016/j.paid.2022.111646

Gray, J. A. (1982). Précis of The Neuropsychology of Anxiety: An Enquiry Into the Functions of the Septo-Hippocampal System. *Behavioral and Brain Sciences*, *5*(3), 469–484. https://doi.org/10.1017/s0140525x00013066

Greven, C. U., Lionetti, F., Booth, C., Aron, E. N., Fox, E., Schendan, H. E., Pluess, M., Bruining, H., Acevedo, B., Bijttebier, P., & Homberg, J. (2019). Sensory processing sensitivity in the context of Environmental Sensitivity: A critical review and development of research agenda. *Neuroscience and Biobehavioral Reviews*, *98*, 287–305. https://doi.org/10.1016/j.neubiorev.2019.01.009

Guilford, J. P. (1950). Creativity. *American Psychologist. 5,* 444-454.

Guilford, J. P. (1967). *The nature of human intelligence.* New York: McGraw-Hill.

Harms, R., Hatak, I., & Chang, M. (2019). Sensory processing sensitivity and entrepreneurial intention: The strength of a weak trait. *Journal of Business Venturing Insights*, *12*, e00132. https://doi.org/10.1016/j.jbvi.2019.e00132

Holinger, M., & Kaufman, J. (2023). *Everyday Creativity as a Pathway to Meaning and Well-Being* (pp. 394–410). https://doi.org/10.1017/9781009031240.026

Jackson, S., & Schuler, R. (1990). Human resource planning: Challenges for industrial/organizational psychologists. *American Psychologist*, *45*, 223–239. https://doi.org/10.1037/0003-066X.45.2.223

Kaufman, J. (2018). Creativity as a Stepping Stone toward a Brighter Future. *Journal of Intelligence*, *6*(2), 21. https://doi.org/10.3390/jintelligence6020021

Limont, W., Dreszer-Drogorób, J., Bedyńska, S., Śliwińska, K., & Jastrzębska, D. (2014). ‘Old wine in new bottles’? Relationships between overexcitabilities, the Big Five personality traits and giftedness in adolescents. *Personality and Individual Differences*, *69*, 199–204. https://doi.org/10.1016/j.paid.2014.06.003

Lin, W.-L., Hsu, K.-Y., Chen, H.-C., & Chang, W. (2013). Different attentional traits, different creativities. *Thinking Skills and Creativity*, *9*, 96–106. https://doi.org/10.1016/j.tsc.2012.10.002

McAdams, D. P. (1992). The Five-Factor Model In Personality: A Critical Appraisal. *Journal of Personality*, *60*(2), 329–361. https://doi.org/10.1111/j.1467-6494.1992.tb00976.x

McCrae, R. R., & Costa, P. T. (1985). Updating Norman’s ‘adequacy taxonomy’: Intelligence and personality dimensions in natural language and in questionnaires. *Journal of Personality and Social Psychology*, *49*(3), 710–721. https://doi.org/10.1037/0022-3514.49.3.710

Meyerson, J., Gelkopf, M., Eli, I., & Uziel, N. (2020). Burnout and professional quality of life among Israeli dentists: The role of sensory processing sensitivity. *International Dental Journal*, *70*(1), 29–37. https://doi.org/10.1111/idj.12523

Montuori, L. M., & Montefiori, L. (2022). Selecting for Learning Potential: Is Implicit Learning the New Cognitive Ability? *Journal of Intelligence*, *10*(2), 24. https://doi.org/10.3390/jintelligence10020024

Nijstad, B., De Dreu, C., Rietzschel, E., & Baas, M. (2010). The Dual Pathway to Creativity Model: Creative Ideation as a Function of Flexibility and Persistence. *European Review of Social Psychology*, *21*, 34–77. https://doi.org/10.1080/10463281003765323

Perrine, N. E., & Brodersen, R. M. (2005). Artistic and Scientific Creative Behavior: Openness and the Mediating Role of Interests. *The Journal of Creative Behavior*, *39*(4), 217–236. https://doi.org/10.1002/j.2162-6057.2005.tb01259.x

Piechowski, M. M., & Cunningham, K. (1985). Patterns of Overexcitabilitv in a Group of Artists. *The Journal of Creative Behavior*, *19*(3).

Piechowski-Jozwiak, B., Boller, F., & Bogousslavsky, J. (2017). Universal Connection through Art: Role of Mirror Neurons in Art Production and Reception. *Behavioral Sciences*, *7*(2), Article 2. https://doi.org/10.3390/bs7020029

Pluess, M. (2015). Individual differences in environmental sensitivity. *Child Development Perspectives*, *9*(3), 138–143. https://doi.org/10.1111/cdep.12120

Pluess, M., Belsky, J., Way, B. M., & Taylor, S. E. (2010). 5-HTTLPR Moderates Effects of Current Life Events on Neuroticism: Differential Susceptibility to Environmental Influences. *Progress in Neuro-Psychopharmacology & Biological Psychiatry*, *34*(6), 1070–1074. https://doi.org/10.1016/j.pnpbp.2010.05.028

Rinn, A. N., Mullet, D. R., Jett, N., & Nyikos, T. (2018). Sensory Processing Sensitivity Among High-Ability Individuals: A Psychometric Evaluation of the Highly Sensitive Person Scale. *Roeper Review*, *40*(3), 166–175. https://doi.org/10.1080/02783193.2018.1466840

Runco, M. A., & Chand, I. (1995). Cognition and creativity. *Educational Psychology Review*, *7*(3), 243–267. https://doi.org/10.1007/BF02213373

Runco, M. A., & Jaeger, G. J. (2012). The Standard Definition of Creativity. *Creativity Research Journal*, *24*(1), 92–96. https://doi.org/10.1080/10400419.2012.650092

Smith, K., Pickering, A., & Bhattacharya, J. (2022). The Creative Life: A Daily Diary Study of Creativity, Affect, and Well-Being in Creative Individuals. *Creativity Research Journal*, *34*(4), 460–479. https://doi.org/10.1080/10400419.2022.2122371

Smolewska, K. A., McCabe, S. B., & Woody, E. Z. (2006). A psychometric evaluation of the Highly Sensitive Person Scale: The components of sensory-processing sensitivity and their relation to the BIS/BAS and ‘Big Five’. *Personality and Individual Differences*, *40*(6), 1269–1279. https://doi.org/10.1016/j.paid.2005.09.022