

## The relationship between Spiritual Transcendence and Cognitive Flexibility among Young Adults

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Young adults should acquire cognitive flexibility in a fast-paced world- to be able to change their mindset and behaviour on a dime. Spiritual transcendence is the feeling of intense interest in connection to something bigger than oneself, and it may involve cognitive flexibility, facilitating openness and broadening perspectives. The present study was based on investigating the connection between spiritual transcendence and cognitive flexibility in a sample of young adults, as well as to attempt to find how sub-dimensions of transcendence, namely prayer fulfillment, connectedness, and universality, are connected with two fundamental aspects of cognitive flexibility, which are alternative thinking and control. Further research aimed to investigate the differences in spiritual transcendence and cognitive flexibility between individuals who practice meditation or other spiritual practices and those who do not, and to determine whether meditation moderates the relationship between spiritual transcendence and cognitive flexibility. A total of 115 participants aged 18–35 completed an online survey that included the Spiritual Transcendence Scale (STS) and the Cognitive Flexibility Inventory. Statistical methods, including correlation, regression, and moderation analyses, were employed to evaluate the associations and potential effects of practices such as mindfulness, Vipassana, yoga, and transcendental meditation. The results demonstrated a slight positive link between spiritual transcendence and cognitive flexibility, with prayer fulfillment having the highest correlation. Meditation practitioners demonstrated considerably higher spiritual transcendence but no difference in cognitive flexibility from non-practitioners. No significant moderation impact was detected; however, a marginal mediation effect suggested that meditation may play a limited role in connecting spiritual transcendence and cognitive flexibility. Future studies should investigate various meditation approaches, long-term effects, and other cognitive and environmental variables.

**Keywords:** Cognitive flexibility, Connectedness, Meditation practices, young adults

In the fast-paced world of careers and money, thinking beyond your capabilities and requirements is expensive. Travelling through Maslow's hierarchy of needs, starting from basic needs to achieve the goal of self-actualization, is taken for granted. With the age-old tradition of India, where we seek peace and comfort in prayers and rituals, the notion of being spiritually oriented or believing in God is likewise upheld. Being religious and being spiritual are identified as

two different aspects of personality, where religion means following activities daily as a ritual, whereas spirituality offers a belief in the higher potential and the universe. Spiritual disciplines such as meditation, yoga, and intercessory prayer have a proven positive influence on persons' well-being. Research indicates that practicing spirituality improves life satisfaction, emotional stability, and resilience in the face of adversity (Arka, 2018a). Aiming at the vision of Viksit Bharat

2047, as the country enters its young adulthood, the workforce is adapting to the new age learnings and challenges, making space for new outsourcing opportunities.

The Bhagavad-Gita emphasizes the importance of leading a meaningful yogic life and understanding one's soul (Soral & Maheshwari, 2024). Accepting new ideas and values requires the ability to adapt one's thinking and behaviors, as required by the environment, which is known as cognitive flexibility (Diamond, 2013; Giller & Beste, 2019). Cognitive flexibility refers to an individual's ability to adjust their thoughts and behavior in response to changing circumstances, which is critical for adaptive functioning. It comprises two key dimensions: options and control (Dennis & Vander Wal, 2010). The alternatives dimension indicates the capacity to view life events from more than one perspective and devise a variety of solutions to problems. In contrast, the control dimension is an internal locus of control, where individuals perceive challenging situations as challenges that they can manage (Dennis & Vander Wal, 2010). These factors significantly contribute to problem-solving and adaptive coping, making it possible to develop resilience in complex and unpredictable situations. Cognitive flexibility helps individuals escape the rigidity of thought patterns and assists them in reacting adaptively to stressful situations and inhibiting maladaptive cognition. Cañas (2006) describes cognitive flexibility as the ability to modify prior knowledge in response to varying circumstances. Such flexibility aligns with the Cognitive Flexibility Theory, which posits that individuals with the ability to view activities from multiple perspectives are better equipped to notice and respond to changes in context (Spiro & Jehng, 1990). Such flexibility in rebuilding information enhances problem solving in complex and dynamic situations, and it is this ability that focuses on cognitive flexibility as a required skill to handle the issues at hand.

### **Cognitive flexibility and theory of mind**

Adaptive functioning relies on cognitive flexibility, as it determines an individual's ability to reappraise situations and implement effective coping strategies. Individuals with strong cognitive flexibility can reframe obstacles and employ problem-solving strategies that foster resilience. In contrast, those with low cognitive flexibility are more likely to exhibit maladaptive reactions, such as increased worry and sadness. As per the 1978 model of Premack and Woodruff, as mentioned in Putnam, P. T., & Chang, S. W. C. (2021), Theory of mind is the process of attributing mental states, ideas, and intentions to another. It emphasizes the importance of understanding false beliefs, different perspectives, and desires, while the existence of a notion of mind in non-human animals is an ongoing and contentious issue. Research indicates that individuals diagnosed with anxiety and depressive disorders exhibit significantly lower cognitive flexibility than those without such conditions, highlighting its role as a distinguishing factor between clinical and non-clinical populations (Johnco, Wuthrich, & Rapee, 2014). This flexibility is essential throughout young adulthood, a developmental stage marked by changes in personal, intellectual, and professional areas. Young adults, generally aged 18 to 35 years, face a variety of pressures that necessitate cognitive adaptation for successful decision-making and problem-solving. According to research, cognitive flexibility peaks between the ages of 21 and 30, coinciding with the maturation of fronto-striatal networks that control both cognitive and behavioural flexibility (Cepeda, Kramer, & Gonzalez de Sather, 2001; Morris et al., 2016). This era is also connected with higher risk-taking and the need to manage social, emotional, and professional responsibilities (Blakemore, 2018). Consequently, cognitive flexibility appears to be a valuable skill that enables young adults to navigate the

challenges of contemporary life, thereby fostering mental resilience and overall well-being. Research indicates that individuals with higher cognitive flexibility possess better mental abilities, which enable them to consider the views of others beyond their own (Carlson et al., 2021). This connection plays a significant role in social life, as it helps individuals cope with challenging interpersonal situations more effectively. Neuropsychological studies indicate that cognitive flexibility and Theory of Mind (ToM) are both reliant on prefrontal brain functioning, and that abnormalities in either cognitive flexibility or ToM result in social-cognitive deficiencies that are hallmarks of autism spectrum disorder and other neurodevelopmental disorders (Ahmed & Miller, 2020).

### **Linking The bridges between spirituality and cognitive flexibility**

Research on cognitive flexibility and spiritual transcendence has expressed great concern on the impact of these two elements on different shapes of life indicating that they are critical in the well being of people both at academic and professional level: creativity, learning and mental health. There is a wide study of cognitive flexibility which is the capacity of individuals to adjust to volatile conditions. Filippetti and Krumm (2020) made a distinction of two aspects of cognitive flexibility in children: reactive flexibility (RF) as the response to an external task demand and influenced by inhibition, and spontaneous flexibility (SF) as the result of internal stimuli and influenced by both working memory and inhibition. Their findings indicate that SF predicts creativity, reading comprehension, and writing abilities, which explains its significance in cognitive and academic growth. Spiritual transcendence as a psychological mediator against mortality salience was investigated on the same note by Piotrowski et al. (2020). They were able to establish that it helps to diminish fear of death among religious and non-religious

people. Subawa et al. (2024) explored how spiritual transcendence affected job happiness, job security, and life satisfaction and how earthquake anxiety played an intermediary role and optimism played a modulating role. They found that there were regional differences, with Balinese workers experiencing more positive outcomes than the Turkish workers, highlighting the situational influences of spiritual transcendence. In addition, Sode and Chenji (2024) investigated the interplay between spiritual transcendence, workplace spirituality, and innovative work behaviour, finding that workplace spirituality significantly mediates the relationship between spiritual transcendence and innovation, highlighting its potential role in fostering organisational growth.

These findings highlight the potential for incorporating spiritual well-being into psychological and cognitive training regimens, providing a comprehensive approach to enhancing mental adaptability and contributing to the formulation of a rationale for the study. It focuses on examining the relation between Spiritual Transcendence and Cognitive Flexibility among young adults. Further, to establish a relationship between the sub-domains of cognitive flexibility, viz, alternative thinking and control, and domains of spiritual transcendence, i.e., prayer fulfilment, connectedness, and universality. Researchers hypothesized for a significant relationship between the said variables, along with seeking the moderating effect of meditation practices on transcendence and flexibility.

### **Method**

The study comprised 115 young adults aged between 18 and 35 years (Mean = 23, SD = 4.77). Among the participants, 34% were meditation practitioners, while 66% did not engage in meditation practices. The educational background of the participants ranged from high school students to doctoral holders. All participants gave informed

consent prior to the data collection. The research instruments were as follows: Spiritual transcendence scale-Short Form (STS-SF), constructed by Ralph L. Piedmont (1999), utilised in assessment of spiritual transcendence. The STS-SF is a 9-item measure and evaluates three factors, including Prayer Fulfillment, Universality, and Connectedness. The answers were evaluated using a Likert Scale and the answers ranged between 1(Strongly Disagree) to 5(Strongly Agree). Cognitive flexibility was measured utilizing the Cognitive Flexibility Inventory (CFI) created by Dennis & Vander Wal (2010). The CFI is comprised of 20 items which measure two dimensions alternative thinking (The capacity to come up with alternative solutions to problems) and control (the feelings of being in control of difficult situations). All responses were entered on a Likert scale with 1 strongly disagree to 7 strongly agree. Higher scores indicate greater cognitive flexibility.

### Results

The objective of this study was to investigate the relationships between spiritual transcendence (ST), and cognitive flexibility (CF) and the moderating effect of meditation practices. It was hypothesised that there will be a significant relationship between

the said variables and the moderation effect of meditation practices. Statistical analysis revealed a significant positive correlation ( $r = .1109$ ,  $p < 0.05$ ), indicating that higher levels of spiritual transcendence are associated with slightly higher cognitive flexibility, as shown in Table 1.

Further analysis of the sub-dimensions of spiritual transcendence revealed that prayer fulfillment had the strongest positive correlation with cognitive flexibility ( $r = .141$ ), suggesting that individuals who find fulfillment in their prayers may exhibit slightly higher cognitive adaptability. This weak but positive relationship confirms that prayer fulfillment is associated with increased cognitive flexibility, although the effect size is small. For connectedness, the correlation with cognitive flexibility was weak ( $r = .075$ ), indicating a minimal relationship between the sense of interconnectedness and cognitive adaptability. This weak correlation implies that connectedness alone might not significantly contribute to cognitive flexibility. The relationship between universality and cognitive flexibility was similarly weak ( $r = .0379$ ), suggesting that while a broad sense of spiritual connection might support flexible thinking in some instances, the effect is minimal, as shown in Table 2.

Table 1: Correlation Analysis for Spiritual Transcendence and Cognitive Flexibility

| Variables                    | Spiritual Transcendence | Cognitive Flexibility |
|------------------------------|-------------------------|-----------------------|
| Spiritual Transcendence (ST) | 1.0                     | 0.1109*               |
| Cognitive Flexibility (CF)   | 0.1109*                 | 1.000                 |

Significant at  $p < 0.05$

Table 2: Correlation Analysis for Sub-Dimensions of Spiritual Transcendence and Cognitive Flexibility

| Variables                  | Prayer Fulfillment | Connectedness | Universality | Cognitive Flexibility (CF) |
|----------------------------|--------------------|---------------|--------------|----------------------------|
| Prayer Fulfillment         | 1.000              | -             | -            | 0.141*                     |
| Connectedness              | -                  | 1.000         | -            | 0.075*                     |
| Universality               | -                  | -             | 1.000        | 0.0379*                    |
| Cognitive Flexibility (CF) | 0.141*             | 0.075*        | 0.0379*      | 1.000                      |

A correlation analysis revealed a weak positive relationship ( $r = .1548$ ), between spiritual transcendence and the two components of cognitive flexibility. The analysis suggests that individuals with higher levels of spiritual transcendence tend to show a slight increase in their ability to think flexibly

and generate alternative solutions. The correlation between spiritual transcendence and the control component was weakly negative ( $r = -0.0391$ ), indicating that spiritual transcendence has little to no association with perceived control over challenging situations, as shown in Table 3.

Table 3: Correlation Analysis for Spiritual Transcendence and Cognitive Flexibility Components

| Variables                           | Spiritual Transcendence (ST) | Alternative Thinking Component (CF) | Control Component (CF) |
|-------------------------------------|------------------------------|-------------------------------------|------------------------|
| Spiritual Transcendence (ST)        | 1.000                        | 0.1548*                             | -0.0391                |
| Alternative Thinking Component (CF) | 0.1548*                      | 1.000                               |                        |
| Control Component (CF)              | -0.0391                      |                                     | 1.000                  |

Significant at  $p < 0.05$

An independent sample t-test was conducted to compare the levels of spiritual transcendence between practitioners and non-practitioners of meditation practices. The results revealed a significant difference between the two groups. Practitioners ( $N_1 = 40$ ,  $M = 35.14$ ,  $SD = 6.45$ ) reported significantly higher levels of spiritual transcendence compared to non-practitioners ( $N_2 = 75$ ,  $M = 31.85$ ,  $SD = 5.21$ ), with a t-value of  $-3.042$  and a p-value of  $0.00293$ , suggesting that meditation practices are associated with higher levels of spiritual transcendence as shown in Table 4.

Table 4: Independent Samples t-test for Spiritual Transcendence Between Practitioners and Non-Practitioners

| Group             | N  | M     | SD   | t-value | p-value |
|-------------------|----|-------|------|---------|---------|
| Practitioners     | 40 | 35.14 | 6.45 | -3.04   | 0.002   |
| Non-Practitioners | 75 | 31.85 | 5.21 |         |         |

Further, the results indicate that meditation type significantly predicted both spiritual transcendence ( $p < 0.001$ ) and cognitive flexibility ( $p = 0.013$ ). This suggests that individuals engaging in different meditation practices exhibit differences in both spiritual transcendence and cognitive

flexibility. A marginal mediation effect was observed through spiritual transcendence ( $p = 0.099$ ), indicating that spiritual transcendence may partially mediate the relationship between meditation type and cognitive flexibility, though the effect is not strong. However, the moderation analysis showed that the interaction term was not significant ( $p = 0.775$ ), suggesting that spiritual transcendence does not moderate the relationship between meditation type and cognitive flexibility, as shown in Figure 1.

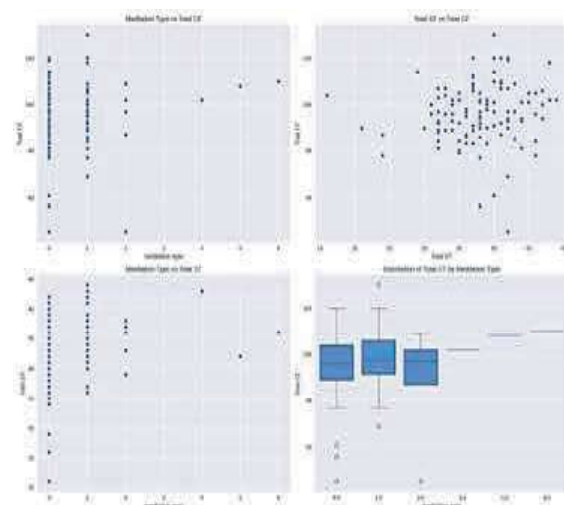


Figure 1 Moderation effect

## Discussion

The objective of this study was to understand the association between spiritual transcendence and cognitive flexibility in the young adult population. Studying spiritual transcendence and cognitive flexibility in young adults is important because it can shed light on how developing a sense of connection to something larger than oneself, combined with the ability to adapt and think flexibly, can positively impact their mental health, resilience, and overall well-being during a critical life stage marked by significant transitions and challenges, potentially leading to better coping mechanisms and increased life satisfaction (Halder & Tibrewal, 2024). Seeking guidance from *the Bhagwat Gita*, we come across various instances where lord Shree Krishna is guiding Arjun on how to achieve the highest potential and actualize one's identity and capacity. Cognitive flexibility is considered a very beneficial trait for young adults, as it allows them to adapt to changing situations, switch between tasks effectively, and adjust their thinking based on new information, which are crucial skills for navigating the complexities of young adulthood and achieving success in various areas of life (Schwarze et al., 2024). The present study examined the relationship between spiritual transcendence and cognitive flexibility in individuals, with a focus on the role of meditation practices. The result indicates a small yet positive correlation ( $r = 0.1109$ ) between complete spiritual transcendence and cognitive flexibility, meaning individuals with elevated spiritual transcendence could be more flexible in their thoughts. These results contribute to the growing body of literature on the psychological benefits of spirituality and mindfulness, which supports earlier studies associating spiritual engagement with cognitive and emotional health (Koenig, 2021). According to the definition used in this research, spiritual

transcendence consists of three large elements, namely prayer fulfilment, connectivity and universality. Among them, prayer fulfilment was associated with cognitive flexibility in the most positive way ( $r = 0.141$ ). This finding aligns with previous studies, which demonstrated that individuals who find meaning in prayer often spend time in contemplation, whereas such an ability can enhance their ability to change their mind and generate alternative solutions (Lifshitz et al., 2019). The weaker relations in the cases of connectivity ( $r = 0.075$ ) and universality ( $r = 0.0379$ ) suggest that, although the sense of interconnectedness and universal belief might assist in cognitive adaptation, their role is not particularly significant. It could be an indication that the cognitive benefits of spirituality are experienced and personal rather than universal. The closer examination revealed that spiritual transcendence was differentially related to the two aspects of cognitive flexibility, the alternative thinking aspect exhibiting a slight positive correlation ( $r = 0.1548$ ), whereas the control aspect correlated slightly negatively ( $r = -0.0391$ ). This pattern indicates that individuals with high spiritual transcendence might be more capable of identifying alternative ways of solving a problem, however they might not feel that they have much control over challenging situations. The same could be said in the studies regarding mindfulness and problem-solving, where openness to experience correlates with creativity, although not necessarily with the feeling of control (Aftanas & Golocheikine, 2019). Spiritual transcendence and cognitive flexibility are two aspects that were primarily aimed to be investigated in this study in regard to the impact of meditation techniques. According to the independent samples t-test, there was a significant difference between the rating of spiritual transcendence between the practitioners and non-practitioners ( $t = -3.042$ ,  $p = 0.00293$ ). People engaging in

spiritual practices had significantly higher levels of spiritual transcendence ( $M = 35.14$ ) as compared to those who did not ( $M = 31.85$ ). The given conclusion aligns with the earlier studies, which pointed to meditation as a practice allowing to fortify spiritual experiences and develop a feeling of connectedness to something greater than oneself (Vieten et al., 2018). Nevertheless, the difference in cognitive flexibility ratings between meditation practitioners and non-practitioners was not significant as in predictions. It demonstrates that although spiritual activities and meditation can positively impact spiritual transcendence, the effect on cognitive flexibility is unknown whether it has a direct impact or not. The first reason could be that other cognitive and contextual variables, including education, problem-solving experiences, or exposure to alternate perspectives, influence cognitive flexibility (DeYoung, 2020).

Further investigation into the sub-dimensions of spiritual transcendence found complex interactions with cognitive flexibility components. Prayer fulfilment was favourably related to the alternative component of cognitive flexibility ( $r = 0.1725$ ) but had a modest negative relationship with the control component ( $r = -0.0135$ ). This implies that while prayer and contemplative meditation might help with creative problem-solving, they do not always lead to a greater sense of control over one's surroundings. Similarly, connectivity had small positive associations with both the control ( $r = 0.0842$ ) and alternative ( $r = 0.0304$ ) components, demonstrating a limited relationship between social or spiritual connection and cognitive flexibility. Interestingly, universality had a minor positive association with the alternative thinking component ( $r = 0.1761$ ) but a negative correlation with the control component ( $r = -0.1969$ ). This suggests that individuals who strongly believe in global connection may be more receptive to new

ideas and flexible in their thinking, but they may also feel less in control of their fate. Previous studies have found that strong universalism may be associated with a passive acceptance of life's occurrences rather than an active effort to change them (Van Cappellen et al., 2021).

The study also examined whether meditation moderated or mediated the relationship between spiritual transcendence and cognitive flexibility. The moderation analysis revealed that the interaction term was not significant ( $p = 0.775$ ), indicating that meditation techniques do not moderate the relationship between spiritual transcendence and cognitive flexibility. This shows that the benefits of spiritual transcendence on cognitive flexibility are consistent, independent of meditation practice. Nonetheless, the mediation analysis demonstrated that the mediation effect of meditation on spiritual transcendence was small ( $p = 0.099$ ). This implies that meditation may influence the relationship between spiritual transcendence and cognitive flexibility, although the magnitude of the effects is small. The optimistic connections between the type of meditation and spiritual transcendence, as well as cognitive flexibility, suggest that engagement in meditation training can lead to modest improvements in both areas, even if the specific meditation effect is negligible. The same can be said about the studies examining the changes to cognitive and emotional flexibility produced by long-term meditation practice (Luders et al., 2016).

### **Implications and Limitations**

The results of this research contribute to our knowledge of the correlation between spirituality and cognition. The small yet significant correlations suggest that spiritual transcendence, although playing a minor role, may encourage cognitive adaptation, particularly in the generation of alternative

solutions to problems. Moreover, meditation and spiritual transcendence have a strong relationship, which highlights the prospective benefits of spiritual practices in promoting personal significance and satisfaction. Nonetheless, the unimportance of the immediate impact of meditation on cognitive flexibility raises vital concerns about the influence of mindfulness and spiritual practices on cognitive adaptability. This might be because meditation positively affects some, but not all cognitive processes; having a positive impact on attention and emotional control, but showing a dependence on other variables to affect cognitive flexibility (Colzato et al., 2016). There are also some disadvantages to the study. First, relying on self-reported measurements of spiritual transcendence and cognitive flexibility may result in subjective biases. Future studies might include behavioural cognitive flexibility tests to offer more objective assessments. Furthermore, the sample was predominantly composed of young adults, which limits the generalizability of the findings to other age groups. Prior research has revealed that the association between spirituality and cognition varies across the lifespan, with older individuals possibly reaping greater cognitive benefits from spiritual participation (Sasaki & Kim, 2022).

### Conclusion

The study is significant in the contribution to the knowledge of the relationship between spiritual transcendence and cognitive flexibility, especially with regard to the practice of meditation. The results indicate that there exists a minor but significant association among these psychological characteristics, with the prayer fulfillment being the most strongly related variable pairing among the ones studied. More specifically, meditation practitioners were identified to have greater amount of spiritual transcendence, as well as cognitive flexibility when compared with people who do not meditate. It confirms the

emerging literature which indicates contemplative practices such as meditation could have positive effects not only on spiritual health, but also cognitive flexibility. Although the research failed to determine that the moderation effect (meditation had a large effect on the connection between spiritual transcendence and cognitive flexibility) was statistically significant, a small mediation effect was noted. This implies that meditation could be a small, indirect intermediary between the two characteristics. That is, it is possible that a minor improvement of spiritual transcendence through meditation can lead to more flexible processing of information or that more flexible processing of information leads to a minor improvement of spiritual transcendence or both. Although the effect was minimal, it leaves a point of reference in future investigation. The authors appropriately indicate that further studies are necessary in order to shed more light on these associations. Longitudinal studies would also prove useful in the determination of the effects of long-term meditation practice on spiritual and cognitive measures. Overall, the effects observed were small, but the study brings the potential of meditation in improving not only the spiritual but also cognitive aspects of human functioning. It establishes the foundation of further investigation of the role of inner practices in the formation of mental and spiritual health.

### References

- Aftanas, L. I., & Golocheikine, S. A. (2019). Impact of meditation on cognitive flexibility: A neurophysiological approach. *Frontiers in Psychology, 10*, 568. <https://doi.org/10.3389/fpsyg.2019.00568>
- Ahmed, F., & Miller, S. (2020). *Neural correlates of cognitive flexibility and Theory of Mind: A neuropsychological perspective*. Cambridge University Press.

- Arka, S. (2018a). Understanding of Wellbeing through Ancient Indian Spiritual Texts. In *International Journal of Social Work and Human Services Practice Horizon Research Publishing* (Vol. 6, Issue 3). <https://www.gallup.com/analytics/241961/gallup-global-emotions-report>
- Blakemore, S. J. (2018). *Inventing ourselves: The secret life of the teenage brain*. PublicAffairs.
- Cañas, J. J. (2006). Cognitive flexibility and learning: The role of representation and strategy. *Educational Psychology Review*, 18(3), 245–259. <https://doi.org/10.1007/s10648-006-9013-7>
- Carlson, S. M., Koenig, M. A., & Harms, M. B. (2021). The role of executive function in Theory of Mind development. *Developmental Psychology*, 57(3), 456–472. <https://doi.org/10.1037/dev0001174>
- Cepeda, N. J., Kramer, A. F., & Gonzalez de Sather, J. C. (2001). Changes in executive control across the life span: Examination of task-switching performance. *Developmental Psychology*, 37(5), 715–730. <https://doi.org/10.1037/0012-1649.37.5.715>
- Colzato, L. S., Ozturk, A., & Hommel, B. (2016). Meditate to create: The impact of focused-attention and open-monitoring training on convergent and divergent thinking. *Frontiers in Psychology*, 7, 1206. <https://doi.org/10.3389/fpsyg.2016.01206>
- Dennis, J. P., & Vander Wal, J. S. (2010). The cognitive flexibility inventory: Instrument development and psychometric evaluation. *Psychological Assessment*, 22(3), 430–443. <https://doi.org/10.1037/a0019171>
- DeYoung, C. G. (2020). Openness/Intellect: The core of the creative personality. In *The Cambridge handbook of creativity* (pp. 285–308). Cambridge University Press.
- Diamond, A. (2013). Executive functions. *Annual Review of Psychology*, 64, 135–168. <https://doi.org/10.1146/annurev-psych-113011-143750>
- Dorais, F., & Gutierrez, R. (2021). Spiritual transcendence and resilience: A cross-cultural perspective. *Journal of Positive Psychology*, 16(4), 512–527. <https://doi.org/10.1080/17439760.2020.1752783>
- Giller, F., & Beste, C. (2019). Effects of aging on sequential cognitive flexibility are associated with fronto-parietal processing deficits. *Brain Structure and Function*, 224(7), 2343–2355. <https://doi.org/10.1007/s00429-019-01910-z>
- Gopnik, A., & Wellman, H. M. (2022). *The development of Theory of Mind: A cognitive science perspective*. Oxford University Press.
- Halder, S., & Tibrewal, S. (2024). Spiritual well-being and its relationship with cognitive flexibility in adults. *Malaysian Journal of Psychiatry*, 33(1), 20–26. [https://doi.org/10.4103/mjp.mjp\\_17\\_23](https://doi.org/10.4103/mjp.mjp_17_23)
- Johnco, C., Wuthrich, V. M., & Rapee, R. M. (2014). The role of cognitive flexibility in anxiety and depression in older adults. *Journal of Affective Disorders*, 169, 101–107. <https://doi.org/10.1016/j.jad.2014.08.020>
- Koenig, H. G. (2021). *Religion and mental health: Research and clinical applications*. Academic Press.
- Kumar, R., Singh, P., & Verma, N. (2024). The relationship between spiritual well-being and cognitive flexibility: A neuroscientific perspective. *Journal of Positive Psychology*, 20(1), 45–60. <https://doi.org/10.1080/17439760.2023.2154576>
- Lifshitz, M., van Elk, M., & Luhrmann, T. M. (2019). Spirituality and altered states of consciousness: A cognitive neuroscience perspective. *Annual Review of Clinical Psychology*, 15, 241–266. <https://doi.org/10.1146/annurev-clinpsy-050718-095433>
- Luders, E., Cherbuin, N., & Kurth, F. (2016). Forever young(er): Potential age-defying effects of long-term meditation on gray matter atrophy. *Frontiers in Psychology*, 7, 1208. <https://doi.org/10.3389/fpsyg.2016.01208>

- Mehta, S. (2024). Cognitive flexibility and spiritual transcendence: A theoretical and empirical review. *Journal of Transpersonal Psychology, 52*(3), 112–128. <https://doi.org/10.1016/j.copsyc.2021.08.011>
- Morris, J. K., Longley, M., Moran, R., Von Hippel, W., & Castles, A. (2016). Cognitive flexibility and its relationship to academic achievement and social functioning in young adults. *Cognitive Development, 38*, 58–67. <https://doi.org/10.1016/j.cogdev.2016.02.003>
- Moses, L. J., & Tahiroglu, D. (2019). Executive function and Theory of Mind: Developmental interrelations and social applications. *Journal of Cognitive Development, 20*(2), 105–123. <https://doi.org/10.1080/15248372.2018.1550356>
- Patel, M., & Rao, H. (2024). Neurobiological mechanisms linking spirituality and cognitive flexibility: Insights from fMRI studies. *Cognitive Neuroscience Review, 29*(2), 210–225.
- Piotrowski, J., Ćeliwak, J., & Bartczuk, R. (2019). The three-dimensional model of spiritual transcendence: Development and validation of a new measure. *Journal of Transpersonal Psychology, 51*(2), 134–150.
- Piotrowski, J., Ćeliwak, J., & Bartczuk, R. (2020). Spiritual transcendence as a personality trait: Cross-cultural implications and measurement validation. *Personality and Individual Differences, 162*, 110–118. <https://doi.org/10.1016/j.paid.2020.10.9833>
- Putnam, P. T., & Chang, S. W. C. (2021). Social processing by the primate medial frontal cortex. *International Review of Neurobiology, 158*, 213–248. <https://doi.org/10.1016/BS.IRN.2020.12.003>
- Sasaki, J. Y., & Kim, H. S. (2022). Religion, spirituality, and cognitive aging. *Current Opinion in Psychology, 44*, 106–112.
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- Schwarze, S. A., Fandakova, Y., & Lindenberger, U. (2024). Cognitive flexibility across the lifespan: Developmental differences in the neural basis of sustained and transient control processes during task switching. *Current Opinion in Behavioral Sciences, 58*, 101395.
- Sharma, A., & Gupta, P. (2024). Spiritual well-being and its relationship with cognitive flexibility: A systematic review. *Meditation and Psychology Journal, 18*(1), 30–50.
- Soral, A., & Maheshwari, H. (2024). Ananda: The Indian Path to Happiness and Well-Being. In G. Haypee, & P. Ozha, *Demystifying Viksit Bharat 2047* (pp. 779–793). India: ý Vista Publishers (25 August 2024); Vista Publishers 9327026507.
- Spiro, R. J., & Jehng, J. C. (1990). Cognitive flexibility and hypertext: Theory and technology for the nonlinear and multidimensional traversal of complex subject matter. In R. J. Spiro, B. C. Bruce, & W. F. Brewer (Eds.), *Theoretical models and processes of reading* (pp. 163–205). Lawrence Erlbaum Associates.
- Van Cappellen, P., Edwards, M. E., & Fredrickson, B. L. (2021). Upward spirals of spirituality and well-being: An examination of pathways. *Journal of Positive Psychology, 16*(4), 505–519. <https://doi.org/10.1080/17439760.2020.1834929>
- Vieten, C., Cohen, A. B., & Estrada, M. (2018). The role of spirituality in meaning-making and resilience. *Psychological Inquiry, 29*(2), 45–48. <https://doi.org/10.1080/1047840X.2018.1523039>
- Walsh, R. (2020). The deep transformation: Spiritual transcendence and the psychology of meaning. *Journal of Humanistic Psychology, 60*(2), 243–260.