
Martin S. Bressler
Southeastern Oklahoma State University

Mark E. Bressler
U.S. Army Medical Service Corps

Emotional intelligence is often touted as one of the most important leadership skills, and with good reason. According to Goleman, emotional intelligence refers to the ability to identify, understand, and manage emotions in oneself and others. Researchers John Mayer and Peter Salovey initially coined the term “emotional intelligence” in 1990 (Salovey & Mayer, 1990) but became popularized later in 2005 by psychologist Daniel Goleman (Goleman, 2005). Researchers today define emotional intelligence as the ability to understand and manage your own emotions, as well as recognize and influence the emotions of those around you. Research, however, increasingly points to the importance of cognitive flexibility during rapidly changing conditions, such as the COVID-19 pandemic. Cognitive flexibility provides us with the ability to adapt our behavior to achieve goals under new environmental conditions. In this paper, the authors introduce cognitive flexibility as a critical business skill and offer ways to implement cognitive flexibility in your business or organization.

Keywords: cognitive flexibility, reactive flexibility, spontaneous flexibility, bricolage

INTRODUCTION

Defining Cognitive Flexibility

Alves & Yang (2022) define cognitive flexibility as the ability of people to reconstruct their understanding and their administrative resources in various methods under the needs of unique backgrounds. Additionally, cognitive flexibility could be considered a crucial psychological characteristic that bolsters a person’s aptitude to overcome doubt and effectively achieve unstructured intricate tasks. Cognitive flexibility may include adaptable awareness, self-efficacy, and an adaptable will. Two distinct types of cognitive flexibility exist and include spontaneous flexibility and reactive flexibility (Alves & Yang, 2022). Reactive flexibility consists of a person “transforming their way of thinking to effectively adjust to changes in the environment. Moreover, spontaneous flexibility requires two areas of reactions generated without external cues” (Alves & Yang, 2022).

Importance of Cognitive Flexibility

Individuals with elevated cognitive flexibility may possess a more powerful feeling of connection with the peripheral environment (Alves & Yang, 2022). Cognitive flexibility also gives people the capacity to
develop additional skills. Hence, people with superior cognitive flexibility maintain varied perceptions, rules, and distinct behavior relationships. Therefore, effectively utilizing cognitive flexibility may positively affect various organizations such as education, medicine, business, and especially entrepreneurship. Cognitive flexibility may positively forecast positive entrepreneurial self-efficacy in decision-making among business owners, especially in times of the COVID era. According to the World Health Organization, COVID-19 is an infectious disease caused by the coronavirus SARS-CoV-2, that although most often results in mild to moderate flu symptoms in most individuals, can present serious respiratory issues for persons with heart or lung disease as well as persons with diabetes. The SARS (severe acute respiratory syndrome) virus is one of several coronaviruses identified in recent years.

**Challenges to Cognitive Flexibility**

Why doesn’t everyone have an elevated level of cognitive flexibility? Some conditions can prevent our development of cognitive flexibility. These conditions include memory, confirmation bias, salience, myopia, low latent inhibition, information bottleneck, rigid thinking, and reinforcement.

Improving your memory can help develop cognitive flexibility as your memory storage may include a wealth of knowledge and experience in solving several types of problems, and by tapping into your memory you may find ways you solved problems of a similar nature. Improving your memory to be able to recall knowledge and experiences that are most relevant to solving a particular problem, however, we can work to improve memory. According to Sean Kang of Dartmouth College (cited in Briggs, 2018), “We remember things because they either stand out, they relate to and can easily be integrated in our existing knowledge base, or it’s something we retrieve, recount or use repeatedly over time.”

Another impediment to cognitive flexibility often develops from confirmation bias. Confirmation bias may develop as we get older and become more set in our way of thinking. When we become set in a certain way of thinking we struggle more to accept innovative ideas.

Like confirmation bias, salience hampers our developing cognitive flexibility skills. William Seeley, a neurologist at the University of California discusses a part of the brain called the Salience Network, a major part of the brain that enables us to notice things that stand out in our environment. Seeley further explains “Our brain is constantly bombarded by sensory information, and we have to score all that information in terms of how personally relevant it is for guiding our behavior.” (“10 Keys to Cognitive Flexibility | Problem Solving - Open Colleges”)

Sometimes we become myopic in our thinking and conversation. You may recall being part of a conversation where you believe the topic has become all talked out. Cognitive flexibility provides you with the brain muscle to be able to turn the conversation toward a more interesting topic. Cognitive flexibility also provides us with the knowledge of what conversation could be most useful to the person or persons you are speaking with at the time.

Our brain is structured such that we tend to ignore old information to make room for the latest information. Typically, our brain will automatically move old information out of the way to make room for more current information. Some people, people with low latent inhibition, have a challenging time recognizing old information and moving it out of the way to focus on new incoming information. This also explains why people with autism easily become overwhelmed by substantial amounts of stimuli. Artists, including poets and writers who often get caught up in details, exhibit greater creativity but may sometimes not be able to see the big picture or move on.

Our cognitive flexibility may also be hampered by information and information bottlenecks. We absorb so much information from our experience and knowledge that we want to store but the sheer volume of information creates a bottleneck, making it difficult if not impossible to retrieve.

Rigid thinking can be considered the opposite of cognitive flexibility. Persons with certain mental conditions such as anxiety and depression become entombed in a thought process that does not allow them to think uniquely. Awareness of our thought patterns is considered a giant step in seeing things from a new perspective and developing a more cheerful outlook on the world.

An important aspect of cognitive flexibility is reinforcement, but reinforcement may not necessarily be a positive aspect. The brain contains neural pathways which like pathways we walk along, become well-
traveled when used frequently. But the result may be that we will repeat the same story to the same person and respond with less cognitive flexibility.

**DISCUSSION**

**Cognitive Flexibility Post-COVID**

To understand the disaster of COVID-19 entrepreneurial decision-making is essential to the pandemic as COVID-19. The expertise does help advocate the motivation of entrepreneurs which may restore entrepreneurial activities stemming from economic distress due to challenges such as COVID-19 Akinboye & Morris, (2022). Recent development and significant growth exist within entrepreneurial exploration; however, a methodical insight into how implementation and causality provide to post-disaster entrepreneurial decision-making should be considered.

COVID-19 can also be described as a “severe acute respiratory syndrome-associated coronavirus” Ghita, Zineb, & Siham, pg., 1, (2020). SARS 2 initially appeared in China in around December 2019. The World Health Organization named the spread a pandemic as of March 2020 (Ghita, Zineb, & Siham, 2020). The health crisis took the world by surprise and people needed to find ways to adapt. Education, medicine, and businesses around the world needed to find ways during the COVID era. Several methods during the pandemic and beyond may involve a significant effort to improve digital technologies which helped infrastructure development.

The pandemic needed business managers to be able to deal with a variety of problems such as enhancing production or diminishing production Gurbuz & Ozkan, (2020). Consequently, managers used a variety of cognitive flexibility strategies to make these production goals possible during the pandemic and proved how resilient the industries can be. However, with cognitive flexibility lessons will need to be learned in business. Entrepreneurs may need to change or succumb to failure with the changes and the post-pandemic. Therefore, emerging technologies might be investigated and employed in subsequent company needs (Gurbuz & Ozkan, 2020).

There could be three reasons why the COVID pandemic affected international entrepreneurs’ implementation. Additionally, the entrepreneurs utilized cognitive flexibility to help initiate their implementation. First, industrial progress in the transportation and communication segments could be considered a vital catalyst of multinational activities. Second, transnational migrant entrepreneurs may be ingrained in several established frameworks which might involve their home country. Third, the entrepreneur type may operate a business in divisions that could be susceptible to adverse impacts during a pandemic such as commerce, tourism, and production. Fortunately, entrepreneurs presented cognitive flexibility which created not only challenges but opportunities during the pandemic.

Various scholars examined the positive and adverse predicaments of small business activities before the pandemic of COVID-19. In comparison, crises might create positive effects on entrepreneurs. Subsequently, radical events could cause novel events that could eliminate past ineffective habits or behaviors. Also, catastrophes may place different requirements on casualties and communities who seek to recover from a disaster. Therefore, all developing cognitive flexibility in people who adapt and overcome effectively.

The COVID-19 pandemic may be considered an enormous challenge to workforce operations and made people worldwide work at home (Chatterjee, Chauduri, Vrontis, & Thrassou, 2022). The first study to look at post COVID-19 era from a technological aspect would be 317 respondents from the country of India. Chatterjee et al., (2022) found that organizations’ personnel capacity affected the organizations’ competition. Hence, leadership should demonstrate positive and advancing attitudes to influence HR services. This study shows that top management can help advocate viable competitive advantage. Consequently, top management should always be encouraging and vigilant so the agency should not deal with any interference towards using the managerial foundation for keeping the businesses open during and after COVID-19.

Chatterjee et al., (2022) additionally presented limitations and ideas for future research for post-COVID business. The present study offered substantial theoretical contributions to the present literature and
required several consequences. The research relies on cross-sectional data. Unfortunately, cross-sectional data encompasses disadvantages in establishing causation among the constructs and propose longitudinal studies to reduce or eliminate such complications (Chatterjee, Chauduri, Vrontis, & Thrassou, 2022). Therefore, future studies may be necessary to explore ideal environments where businesses might achieve the most essential viable competitive advantage. Generalizability may be the size of how valuable the outcomes of the study could be to the larger population in a variety of conditions.

Hence, this might be an avital facet to understanding the availability of research results. Future researchers may be able to overcome the external validity issue and might possess a more generalizable result. The explanatory power of the suggested prototype is 68%. (Chatterjee, Chauduri, Vrontis, & Thrassou, & (2022). Potential researchers should be concerned about other constructs and periphery requirements to examine if the explanatory power of the projected prototype could be enhanced.

Cognitive Flexibility and Entrepreneurship

In a variety of experiments with the impact of trauma among young children affecting early adulthood resilience and vibrant adaptation processes, scholars discovered that a positive relationship exists between self-efficacy and cognitive flexibility (Alves & Yang, 2022). The coping styles of medical military personnel involved in COVID-19 prevention and control it and Alves & Yang (2022) observed that people with elevated cognitive flexibility possess heightened mental toughness and creativity and superior self-efficacy which may lead to further effective coping strategies. During the study of the positive effect of power on cognitive flexibility academics found that self-efficacy and cognitive flexibility promote each other. Thus, with the improvement of cognitive flexibility individuals become more confident in dealing with problems and possess faster responses, have a sharper sense of modernization efficacy, and possess a superior impact of innovation efficacy. After grasping valuable social skills people with cognitive flexibility can capitalize on their distinctive advantages, enhance their confidence, and cope with ambiguous considerations in entrepreneurial self-efficacy. Cognitive flexibility can also help lower anxiety and other undesirable emotions and bolster employees’ confidence which might enhance positive emotions and help build confidence which may enhance positive emotions and entrepreneurial self-efficacy.

Cognitive flexibility can be the touchstone for entrepreneurs to decipher and form tactical responses (Alves & Yang, 2022). An elevated level of cognitive flexibility can benefit entrepreneurs to formulate different strategies for identifying and explaining appropriate information and to promote their free conversion in a variety of thinking and searching methods enabling them to produce innovative solutions to situations. Entrepreneurs with prominent levels of cognitive flexibility possess the capability of innovative bricolage. Entrepreneurs with strong cognitive flexibility may improve reflect on existing strategic actions and realize signals from the environment which can be positively related to the ability to undertake dynamic task feedback.

Cognitive Flexibility and Entrepreneurial Decision Making

In the general sense, decision-making may be described as choosing an appropriate course of action Liebregts, Darnihamedani, Postma, & Atzmueeller (2019). Decisions in entrepreneurial contexts can be either made by the entrepreneurs themselves or by other employees. Thus, these decisions impact immediately entrepreneurs. Liebregts et al., (2019) Research on how entrepreneurs decide to make their decisions may be considered a particular interest to small business scholars given the extortionary decisions making that entrepreneurs could be subject to. Consequently, entrepreneurs might need to undertake a general assortment of activities and responsibilities.

Entrepreneurs also need to be cognizant of behavioral cues during social interactions (Liebregts et al., 2019). In certain instances, examples of decision-making of entrepreneurs may not be exclusively set on a defined set of prior material such as a resume but may be based on a real-life scenario such as a conference. During a conference, people might act in ways to boost the decision power of the entrepreneur both non-verbally and vocally. Additionally, entrepreneurs themselves could frequently try to influence others in a variety of ways to receive financing through non-verbal and verbal actions.
Liebregts et al., (2019) indicated the importance of non-verbal behavior in humans and social signal processing (SSP) and research on decision-making. SSP suggests that humans can produce the digital handling and appraisal of social indicators, specifically in a non-verbal way. For example, the human face can radiate facial communication that might show concern about sociability, strength of character, boredom, or other mental attitudes. Also, the expression of social signals relates to categories like pursuit, commitment, importance, and emulation which might be used in forecasting activities and decisions.

Liebregts et al., (2019) noted that we can classify behavioral cues into five areas, and they are the following involving decision-making: “Physical appearance, gestures and posture, face and eye behavior, Vocal behavior, space, and environment” (p. 595). Physical appearance consists of areas such as height, desirability, and body structure. Gestures and posture involve hand signals, stances, and walking. Biometry may be used for both physical appearance and gestures and posture. Face and eye behavior includes facial manifestations and emphasis on awareness. Vocal behavior consists of inflection, turn-taking, emotional outbursts, and silence. Speech analysis might be used to detect all the vocal actions. Space and environment contain distance and seating assembly. Computers can be utilized for the automated recognition of interactive signals for space and the environment.

A conceptual framework may exist for decision-making involving social interactions (Liebregts et al., 2019). People who make decisions involving social interaction appear to be highly relevant to entrepreneurs. Overall, an individual needs to implement truthful information and make the best decisions. However, the available evidence might be deficient, and people to be motivated to exclude data that could impair their representation. Impression management behaviors can be extensively applied, and some individuals may be more willing than others.

However, verbal behavior should not be forgotten (Liebregts et al., 2019). Verbal behavior might directly impact the outcome of decisions by entrepreneurs or investors. Verbal behavior may be suggested such as conscious or non-relevance of communication. The suitability of the subject matter might be shown to be one of the most critical deterrence of employment decisions in small businesses. Candidates who respond succinctly, cooperate entirely in answering queries, and state particular opinions may more likely receive a job offer. Consequently, the verbal content will be a strong influence in hiring decisions. Likewise, both nonverbal and verbal behavioral cues can moderate the effects of nonverbal conduct cues on decisions for entrepreneurs (Liebregts et al., 2019).

SSP referred to various contemporary techniques utilizing artificial intelligence that can inevitably distinguish and examine social signals. The various contemporary techniques can be sent during human-to-human collaborations. Thus, Liebregts, Darnihamedani, Postma, Atzmueeller, & (2019) believe that SSP techniques might be more accurate and more efficient than traditional approaches (manual coding). However, the researchers may identify traditional approaches may involve important characteristics that cease to exist in research which would explain how entrepreneurs and investors arrived at their decisions.

Therefore, decision-making could be either individual or group based since the latter includes interpersonal tensions and people’s problems. Liebregts, Darnihamedani, Postma, Atzmueeller, & (2019) This may suggest the importance of a multilevel perspective in future studies in entrepreneurial decision-making. Future studies may be encouraged to implement how entrepreneurs intermingle with clients, contractors, and consultants. Entrepreneurs do possess their ways which can be explored. Unfortunately, entrepreneurs and entrepreneurs and researchers did not develop SSP at this stage currently so data from scientists will need to suffice for future research.

Entrepreneurial and COVID Decisions

In the current situation, technology can be playing an undeniable and critical role in the lives of people across the world (Polas & Raju, 2021). Various businesses such as manufacturing and finance became significantly automated. Consequently, this allows entrepreneurs to make marketing decision making after the outbreak of COVID-19 from remote locations without physical personal contact. Polas & Raju (2021) noted that entrepreneurs may be more relaxed if they could work at home with the assistance of technology. Polas & Raju (2021) supported five of their hypotheses in their research. First, entrepreneurial identification can enhance marketing decisions. Thus, in the COVID-19 pandemic organizations with a
larger advantage of technology appear to be helping sustain cohesion between nature, society, and their monetization strategies. Secondly, opportunity development can enhance marketing decisions. Entrepreneurship management researchers believe that the introduction of technology could possess a long-term effect and that technology will possess an impact on sustainable enterprise activities in the future. Thus, the results suggest entrepreneurs feel a greater commitment to future generations using technologies during the COVID-19 pandemic such as the management of natural resources, the efficient application of diversity among employees, and the prevention of inappropriate marketing decisions.

Finally, Polas & Raju (2021) a robust amount of entrepreneurial chance utilization accelerates decision-making with robust assurance. Prior results appear to be that entrepreneurs who genuinely consider prospects avoid corrupt conduct that affects workers and prefer more sensible marketplace decisions. The conclusions with medium-sized businesses and small-scale businesses could suggest that entrepreneurs who honestly believe their prospects can be much more concerned with the interior employment environment but also desire to take more sustainable action. Overall, the calculated actions of entrepreneurs might suggest their beliefs and behavior which could lead to the completion of expertise-based decisions during the pandemic.

Polas & Raju (2021) implied that an ever-improving number of businesses realize the lengthy expected benefits of machine learning and Artificial Intelligence (AI). AI in business intelligence can be rising daily, particularly during the COVID-19 pandemic. From process modernization to configuration assessment AI could be utilized in a selection of market consumers and leaders for new development opportunities. Companies will now be able to use computers to intensify patterns and expectations in immense stores of data and to settle for speedier marketing conclusions might become serious.

The role of trust in how both position of confidence in how both contemporary and competent entrepreneurs interpret and make up their perception of their corporate environment to enlighten decision-making (Cunningham & Anderson, 2018) Cunningham & Anderson (2018) can be considered enclosed along with tentative connections to investigate discrepancies in entrepreneurial decision-making. Newer entrepreneurs may be more hopeful in the face of environmental peril which could influence their decision-making and groundbreaking capacities. However, the more knowledgeable entrepreneurs may cautiously sustain margin and reorganize to become accustomed to environmental fluctuations.

Cunningham & Anderson (2018) implied in their study that entrepreneurial common sense-making might be influenced by variants in confidence between different and more reputable entrepreneurs. New entrepreneurs might not be considered more confident about their skills but may be more enthusiastic than skilled owners. However, a sensible methodology, untampered by enthusiasm and self-confidence may lead to a business startup and may not lead to successful innovations that would be sought in today’s culture. Thus, new entrepreneurs seem prepared to emphasize hope rather than pragmatism and optimism that infuses their future course.

Improving Your Cognitive Flexibility

Ways to enhance cognitive flexibility would be through entrepreneurial intention through the negotiation role of entrepreneurial alertness and diminishing the impact of entrepreneurial self-efficacy (Gill, Bencheva, Karayel, &Usman, 2021). Gill, Bencheva, Karayel, & Usman (2021) indicated four hypotheses about cognitive flexibility. First, cognitive flexibility incorporated a constructive and substantial influence on entrepreneurial intention and the outcomes line up with previous researchers. Secondly, cognitive flexibility positively affected entrepreneurial alertness, supporting the hypothesis.

Cognitive flexibility may also benefit entities who possess meaningful familiarity and skills to develop into an entrepreneur (Gill, Bencheva, Karayel, & Usman, 2021). Also, entrepreneur alertness boosts a unique level of examining, forming entrepreneurial intention, and performance. Lastly, entrepreneurial self-efficacy controls and reinforces the direct association between cognitive flexibility and entrepreneurial intentions. Consequently, the discoveries might be considered in connection with previous scholars who discovered entrepreneurial self-efficacy as a moderator and mediator.

The rational consequences of this study can refer to the policymakers, educators, and researchers who are directly and indirectly involved in enhancing entrepreneurial growth (Gill, Bencheva, Karayel,
&Usman, (2021). So, the educator should consider paying more attention to the student’s cognitive abilities and encourage them to pursue a career in entrepreneurship. Thus, they must offer business start-up training programs for individuals and develop their entrepreneurial attitude and skills to start a business. Educators should identify students who possess the cognitive abilities to become entrepreneurs and enhance those cognitive skills so they can see it as the right path. Therefore, researchers should take assessment tools to help identify cognitively flexible people with the confidence that they would see a more astonishing fit for new business development. Assessment tools might include longitudinal data such as cognitive psychology techniques such as EEG, neurology imaging, and an individual’s brain scanning to predict better cognitive abilities and entrepreneurial intentions.

Takahashi, Damashin, Grsu, Hingarh, Adachi, (2021) indicated how Kyudo can be utilized in business and especially during the COVID-19 pandemic. Kyudo refers to the Japanese form of archery that involves meditation right up until releasing the arrow. Businesses implementing Kyudo could use meditation as a tool for cognitive flexibility. Kyudo can be considered a new business tactic and can be applied to creating innovative ideas, constructing a modern outcome, and highlighting the significance and value of the moment. In the business world, there can be considered a haphazard target situation but in Kyudo right shooting always results in a hit. In Kyudo, the focus is on you and the target at the time when in business proper leadership always results in sustainable and profitable growth.

We can also improve cognitive flexibility in another way. Luo, Santos-Malave, Taku, Katz, & Yanagisawa, (2022) indicated people in life such as medical students surveyed at Mount Sinai in New York City during the COVID-19 pandemic demonstrated ways to improve cognitive flexibility. Specific ways included resilience behaviors, establishing a supportive network, and relying on a moral compass. All these things suggest that stressful experiences before or parallel with COVID-19 encouraged a concept called post-traumatic-growth (PTG) which could be protective against COVID-19 stress and could be related to and/or enhance cognitive flexibility. Luo, Santos-Malave, Taku, Katz, & Yanagisawa, (2022) noted that these students compared with other students who perceived COVID-19 as the most stressful life event, to other life events, family issues, or serious illness \( (t = -2.2 p=.03) \), developing brain fitness \( (t=2.2 p.03 \) and finding meaning and purpose in things \( (t=2.9mp=.006 \). These results indicated that stressful experiences before or parallel with COVID-19 encouraged PTG and the development of resilience behaviors such as cognitive flexibility that were protective against COVID-19-related stress.

**SUMMARY AND CONCLUSION**

The COVID-19 pandemic is only one of the more recent significant challenges to business. Challenges can be minor or significant and can come in different forms. In addition to the pandemic, economic or even weather events, such as hurricanes and tornadoes can also present significant challenges for businesses. Managers with a high degree of cognitive flexibility are better prepared to withstand business challenges.

The good news is that we can improve our cognitive flexibility to become better managers and business owners. In Table 1 below, we have outlined ten techniques to improve your cognitive flexibility. Several of these techniques are as easy as exercising or changing your routine. In addition to improving your cognitive flexibility, in the process, you will be learning new skills that will help you as a manager or entrepreneur along with your everyday life.
TABLE 1
TEN WAYS TO IMPROVE COGNITIVE FLEXIBILITY

<table>
<thead>
<tr>
<th>Pay attention to your thoughts-pay attention to where your mind goes when you are called upon to share your knowledge or experience.</th>
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<tr>
<td>Be intentional-ask the other person what they want to talk about and what they want to know.</td>
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<td>Create categories-create categories of information topics and situations in your mind for future reference.</td>
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<td>Align encoding and retrieval cues-identifying the meaning of the information and the context you will apply it to will help you remember it when you need it.</td>
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<td>Record your experience-clearing our brain of other things, especially worrisome things, allows us to make room for other things and enabling cognitive flexibility.</td>
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<td>“If you understand it, you’ll remember it.”-if you do not understand a concept, you will have trouble remembering that concept.</td>
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<td>Physical exercise-twenty minutes of exercise allows our brain to release endorphins, serotonin, dopamine, and other chemicals that help us feel good and help our brain to grow. In addition, exercise helps us to focus and lowers anxiety levels. In time, exercise also stabilizes mood, increases the size of our hippocampus, and promotes neurogenesis. These are all things that boost cognitive flexibility.</td>
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<td>Learn new skills-learning a new skill such as learning to play a musical instrument, learning a foreign language, and even learning a new game help improve your cognitive flexibility.</td>
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<tr>
<td>Shake up your routine-taking a new route home from work, travel to a new place, or meeting new people can help increase your cognitive flexibility.</td>
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<tr>
<td>Cultivate humor-being able to see the humor in situations demonstrates that we can see the big picture in situations rather than getting caught up in the literal meaning of the situation.</td>
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REFERENCES


