

# Cognitive flexibility: The science of how to be successful in business and at work

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Credit: AI-generated image ([disclaimer](#))

The word "permacrisis" was selected as the word of the year for 2022, referring to a feeling of being permanently in crisis. The business world has certainly faced continuous and increasingly frequent disruptions over the last few years. These included COVID-19, lots of people leaving the workforce, geopolitical events and now the emergence of sophisticated

AI such as ChatGPT.

These changes have unequivocally reminded leaders, human resource practitioners, governments and business schools that the only constant is that organizations need to always adapt. Indeed, the ability to predict and learn from changing environments is increasingly important for businesses.

But how exactly do you do that? Well, you need a flexible workforce to start. But simply telling people to "be flexible" or "adapt" is as effective as asking people to be smart, creative or happy. Similarly, asking people to assess how flexible they are is as unreliable as asking people to assess their own positive and negative qualities.

Luckily, our research has come up with an evidence-based way to train and assess [mental flexibility](#).

Organizational research has repeatedly highlighted terms such as "adaptive leadership", "adaptive salesforce business agility" or "agile enterprises" [as key determinants](#) of business resilience and performance. Startups and [innovative companies](#) need to be even more adaptive and flexible to compensate for lack of resources. Obviously, the same goes for individuals in such organizations.

Indeed, the entire modern workforce needs high levels of career adaptability to survive in an environment in which skills and roles quickly become obsolete—as technology takes over. Overall, the adaptive organization is no doubt emerging as an important business model. It is probably the only mindset that can deal with the complexities of modern economies.

While most will likely agree on the importance of being adaptive, there is very little understanding of what cognitive capacities underlie adaptive

behaviors. It's unclear how to assess them, and, importantly, how to train this type of thinking. In reality, people do not know what exactly flexibility is, whether they possess it and how to put it into practice.

As it turns out, "being smart", competent, educated—or even having strong social and emotional skills—will not guarantee flexible behavior.

## **The power of cognitive flexibility**

Recent but established research in [cognitive neuroscience](#) has drawn attention to a function called cognitive flexibility. This executive function (a type of skill that helps us plan and achieve goals) enables us to switch between different concepts and patterns. It also helps us adapt choices to achieve goals and problem solve in novel or changing environments.

Cognitive flexibility aids learning under uncertainty and to negotiating complex situations. This is not merely about changing your decisions. Higher cognitive flexibility involves rapidly realizing when a strategy is failing and changing strategies.

The importance of cognitive flexibility was first discovered [in clinical patients](#). The function engages areas of the brain involved with decision making, including the prefrontal cortex and striatal circuitry. When this circuitry becomes dysfunctional due to [neurological diseases](#) or psychiatric disorders, [it can cause rigidity of thought](#) and a failure to adapt.

Cognitive flexibility is required in many real-world situations. The category of workers that requires the highest level of adaptability is arguably entrepreneurs. Entrepreneurs need to show flexibility not only in terms of idea generation, but also for resource allocation and social exchanges.

Indeed, our previous research [has shown](#) that entrepreneurs, compared with high-level managers, have increased cognitive flexibility. This ultimately helps them to solve problems and make risky decisions successfully. We have also demonstrated that this flexibility [translates to social decision making](#). Entrepreneurs are simply more flexible in terms of whether and when to trust other people.

## Boosting your mind

Cognitive flexibility has often been used as a generic and ill-defined term, measured using subjective self assessment. Yet, cognitive neuroscience [now has tests](#) to more precisely [define and objectively measure it](#).

Cognitive processes, such as working memory, are strongly linked to intelligence level, or IQ, and therefore are relatively unmodifiable. In contrast, cognitive flexibility isn't as strongly linked to IQ and therefore [has the potential to be trained](#). For example, we might be able to modify and strengthen [neural circuits](#) in the brain through [cognitive training](#).

In terms of interventions, seminars on "being flexible and adaptive" will probably have very limited success. Yet, there seems to be a surprising possibility to indirectly train cognitive flexibility by computerized, adaptive training using simple games—though this is something we are still researching.

Researchers are [also exploring](#) more "natural" methods, such as learning new languages or having more diverse social interactions.

Ultimately to better evaluate and train [cognitive flexibility](#), it is critical to supplement self-reported assessments with more diverse and objective methods—including computerized testing. This should take place alongside monitoring of direct changes in brain responses. We need to

know more about how these brain changes relate to real-world outcomes, such as school attainment and career advancement.

Rapid developments in technology and innovation provide serious challenges for workers in many industries, including in [financial services](#), renewable energy, climate change science and global health. This means they will have to learn new skills as opportunities become available in challenging and emerging areas. Education should ultimately also change to reflect that.

There is no doubt that the need to make good decisions under uncertainty is becoming exceedingly important.

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