



The Importance of Express Process in Decision Making: A Neuroscience Perspective

By Al H. Ringleb and Brad M. Daniels

As individuals, we make more than 4,000 decisions every day. However, we are completely unaware of the overwhelming majority of them, as most of our thinking processes, and particularly our decision-making processes, are hardwired in our brains. This is because our brains have evolved for survival and efficiency purposes to recognize patterns in our environment and automatically make some decisions based on those patterns. We refer to this automatic, habitual brain circuitry as “System 1” thinking. Alternatively, our conscious, deliberate brain circuitry—with which we make the decisions we are consciously aware of—is known as “System 2” thinking.

System 1 thinking errors in decision-making

Neuroscience has shown that the brain remembers experiences both factually and emotionally. When placing an event into our memory, the brain assigns an emotional tag: if the event was pleasurable, it is tagged positively; if it was painful, it is tagged negatively. Then, whenever we experience a new event, our System 1 circuitry rapidly scans our memory, compares the new event to past experiences, and automatically selects one that is similar. If this unconsciously chosen past event was tagged positively, then our System 1 reaction to the new event will very likely be positive; if the past event was tagged negatively, then our System 1 reaction to the new event will also very likely be negative. Since we are often unaware that our System 1 circuitry has reached a decision, we can find ourselves jumping to conclusions based on these unconscious reactions. Indeed, neuroimaging studies have demonstrated that System 1 habitual processes compromise the cognitive processes involved in decision making, leading to suboptimal decisions. What distinguishes effective decision makers is an ability to recognize a System 1 reaction, move it aside, and instead activate System 2 thinking. Effective leaders ask themselves: is my System 1 thinking leading to the most productive, creative, and healthy choice? Or is it producing suboptimal outcomes because my System 2 thinking is not intervening quickly enough?

The costs of unregulated System 1 thinking can be great. All too frequently in groups, the loudest or most forceful voice wins out. System 1 thinking is responsible for both the "loudest voice" reaction and for others following these reactions. As a result, groups often go down the wrong path, and, worse still, when they eventually realize the mistake, they may then simply attempt to salvage what they have already done. This problem is especially acute when the System 1 thinking error comes from the group leader. Whereas the traditional "I am the smartest person in the room" approach to leadership underutilizes and diminishes the thinking of followers, effective leaders encourage their group members' System 2 thinking. Naturally, people like to feel their thinking matters to their fellow team members, to the successful completion of a project, and to their leaders. Effective leaders facilitate the thinking of the team, assisting members in thinking more productively and efficiently. Crucially, leaders must be experts of process, but not necessarily of content. They need to know how to ask the right questions, induce insights in followers, and overcome impasses. Thus the team, and not just the leader, does the thinking.

Express versus implicit process

Decision-making processes in most individuals tend to be idiosyncratic, or what is known in neuroscience as "implicit" knowledge. It is there, it is functional, but it may be personal and difficult to explain sufficiently to others so that someone else can step in and reach the same decisions. Without making it explicit, or "express," it presents a barrier to effective communication and thus decreases productivity. And although followers who work with leader for a long time may learn through trial and error what information is important and how the leader will use it, there are clear competitive advantages to moving away from implicit and toward express processes.

Benefits of explicit process in decision-making

Express process permeates effective organizations. It provides teams with common language and common guidelines, which is critical to ensuring that all brains can be engaged in reaching a decision or recommendation. If thinking processes are made explicit in team and group settings, every member knows what information is important and how that information will be used in making decisions or solving problems. In an environment with express process, all voices are more likely to be heard, task-oriented thinking is enhanced, and team members are more likely to feel that their thinking is appreciated. The leader thus leads not by imposing implicit, idiosyncratic thinking processes, which result in dysfunctional teams as individuals are reluctant to ask questions out of fear of looking unintelligent, uninformed, etc. Rather, the leader asks the right questions and takes full advantage of content experts in the group. With

everyone's thinking appreciated, encouraged, and supported, enhanced productivity and creativity can be achieved.

To summarize, express process improves group performance in the following ways:

1. Provides common language and guidelines
2. Ensures that all brains are engaged
3. Leads to insight
4. Slows down the brain down to allow better System 2 thinking
5. Focuses brain resources
6. Regulates group emotion

Tools for effectively employing System 2 thinking in decision-making

Kepner Tregoe: A key ability of leaders who effectively utilize their System 2 thinking is to ask the right questions of the right people in order to gather needed data for decision making. An invaluable tool for doing so is the system of Kepner Tregoe (KT) processes. KT has been an integral part of the CIMBA experience for the past two decades. According to KT, the questions that define the most important thinking processes for leaders are:

1. What is going on? (Situation Appraisal)
2. Why did this happen? (Problem Analysis)
3. Which course of action should we take? (Decision Analysis)
4. What lies ahead? (Potential Opportunity/Problem Analysis)

Mindfulness: Another tool that aids in decision making processes is mindfulness practice. Neuroscientists have investigated the effects of mindfulness on decision-making, and found that it improves decision quality. This is because being mindfully in the present allows us to more quickly sense our physiological reactions and become aware of situations where System 1 thinking may have detrimental effects.