

SMART QUARRYING: Living outside of time

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Foresight is implicitly associated with thinking about the future. Having foresight is linked to ways in which humans think and construct 'images' of how future could evolve. Expressing foresight is mostly done in the form of describing images or generating narratives. These are referred to in the psychology literature as symbolic representations and are traced back 1.5million years ago as a significant ability that emerged in our human ancestry. The implication of this psychological development in humans, the ability to engage in mental time travel, is described as the "evolution of the capacity to simulate possible future events, based on episodic memory, ... by enabling action in preparation of different possible scenarios that increased present or future survival and reproduction chances".

The notion of having foresight is therefore not the exclusive domain of a few gifted or talented people. The ability to dissociate from primary perceptions to secondary perceptions including symbolic perceptions about the future, is innate to all human beings. Mental time travel is the cognitive ability to travel back in time, into the past, to consciously relive and retrieve memory episodic memories. Similarly, mental time travel into the future accessing the episodic memory system has also been evidenced. This neuropsychological evidence illustrates that humans are equipped with the ability to construct images of the future, of events that have not yet occurred. I describe this as an individual's foresight.

Of critical importance in this discovery is that episodic memory has not developed only to reproduce the past (like a video recorder) but serves to enhance an individual's ability to consciously develop a simulation of the future – to "provide information from the past for the simulation of the future". The simulation of the future is often captured in the form of a story or narrative. It is the source of fiction in literature, media, drama, television and film. Episodic memory is of course subjective and as such one person's reality may be another person's myth. Every leader will behave differently even if only by minute degrees.

Irrespective of the accuracy of such simulation of the future, research illustrates that there is continuity within the realm of time when it comes to our mental engagement in it. There is no absolute beginning or end, and its transition from the future into the past is a dynamic experience of the 'now' – the present.

Humans can simulate virtually any event and evaluate it in terms of likelihood and desirability.

The construction of possible future events, or scenarios, is a common human activity and depends on what is referred to as the 'generative component' of our thinking. The significance of this observation is that common to both foresight and strategic thinking is the generative (creative) dimension of thinking. The world is facing a

"[Episodic memory] allows us to imagine future episodes, make specific plans and compare different scenarios. ... Survival pressures brought about by changes in climate and the replacement of a forested environment by the more exposed savannah necessitated greater social cohesion, more detailed future planning and more effective communication." Suddendorf, Addis & Corballis 2009, p.1321

situation where due to the decline in divergent thinking, creativity and creative input where humans are less likely to anticipate change or identify future possibilities.

Thus, creativity of business solutions, effective strategy and innovation is significantly reduced.

It is also important to recognize that the ability to 'generate' or create images of how the future may be was not the result of trying to create something aesthetically pleasing. Creativity and art has been confounded. Creativity has effectively been 'hemmed in' by our popular understanding of what being creative looks like.

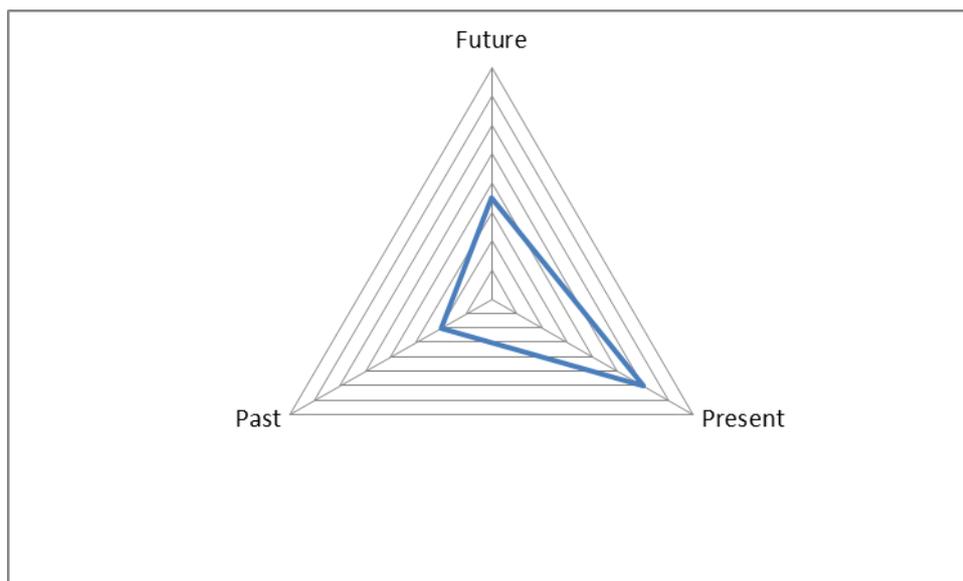
Whereas, the human ability to travel in time and creatively generate images of the future was born out of the human need for survival. Instead, what many are witnessing now is the ability of computers to 'generate' images of the future based on the patterns of the past. Computer data however, is defined in terms of when the data was recorded and when it ended – no later than the present. As such, computers do operate in a continuum of time and certainly cannot determine how desirable its forecast is.

Most executives admit that their biggest challenge is strategic thinking. The Smart Quarrying research suggests that the biggest challenge is not strategic thinking but rather the creative dimension of strategic thinking. The obsession with 'big data', compliance and projections from the data has been evidenced as prolific in

businesses and it is suggested that this has biased strategic thinking in favour of its analytical dimension. The Smart Quarrying research provides evidence that this may be the case.

A bias in favour of the analytical dimension of strategic thinking further suggests that despite the potential that technology may enhance our ability to generate (create) more viable alternatives in the future, the opposite is happening. We are generally less generative of new ideas and far more dependent on that which already exists. When isolated from the foresight construct, the results illustrated very low levels of reflection on the past and high levels of orientation to the present. Future-orientation scored higher than that of the past but lower than the present. An example of the analysis is illustrated in figure 1.1

Figure 1.1: Example of leaders' orientation to time



What the results and subsequent interviews have illustrated is that most the more than 1500 strategy-level leaders sampled to date, the majority are overtly orientated to the present. As an example, upon presenting a similar result to a C-suite executive the response was one of agreement. He stated; "Clearly, as an executive in this business one is consumed by the pace of business and the lack of time to think. Carpe diem!" I then asked the executive 'how long is now?' It slowly dawned on the executive that the overwhelming majority of his thinking presided in the present. He had extracted himself from the continuum in favour of what he perceived as the cognitive benefits of now which are over in the blink of an eye.

This example is not isolated. In fact, the result accounts for most respondents in the research sample. As is illustrated above, the human ability to travel mentally in time is common to all and very powerful. It is closely linked to foresight and strategic thinking as linked but distinct constructs. It is in addition associated with the human ability to 'create' and to generate images of the future. The ability to travel mentally in time is predominantly based on cognitive functioning across time in all dimensions and without boundaries. By allowing ourselves to be extracted mentally from the continuum of time and to be fixated on the present effectively breaks this innate cognitive process and ability. Over time, in the same way that the process can be developed, it is proposed that mental time travel can also deteriorate. Does this bode well for businesses or society?