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LOL: Big 5 Creativity Conditions – Curiosity and Cognitive Flexibility (Creativity volume 5)

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This is the latest in our continuing LOL series on creativity and innovation, and coverage of our third of the Big 5 Creativity Conditions: curiosity and cognitive flexibility. To help readers remember the Big 5, we created a simple acronym: IDEAS

- **I** is for IQ/Expertise: having sufficient subject matter expertise so that you can go deep and then evaluate the usefulness of new ideas
- **D** is for Discovery/Curiosity/Cognitive Flexibility: being open and receptive to feedback and new ideas
- **E** is for EQ/Emotional Safety: understanding yourself and others to create a safe environment for taking risks, asking questions, and dreaming up new solutions
- **A** is for Attention: creativity requires periods of sustained attention. In our “distracted” world this time is hard to find. But necessary for breakthroughs.
- **S** is for Support: both within yourself and in the environment. Are you taking care of yourself? Getting enough sleep, exercising, eating well? Are you suspending judgment as you search for new ideas? Also, is the firm providing proper support? Do they understand the need for sustained attention and provide opportunities for it? Do leaders appreciate and provide psychological safety? Or are they overly critical and fear-inducing so that no one wants to take a risk?

This installment looks at **Discovery/Curiosity/Cognitive Flexibility**. Curiosity is the desire to learn new things, to consider different viewpoints, and questing to make the unknown known. Also, it is the willingness to reconsider our sacred cows: how we calculate the cost of equity, our business model, how we hire, how we interact with clients, or whatever. In short, curiosity and cognitive flexibility are also necessary conditions for creativity.

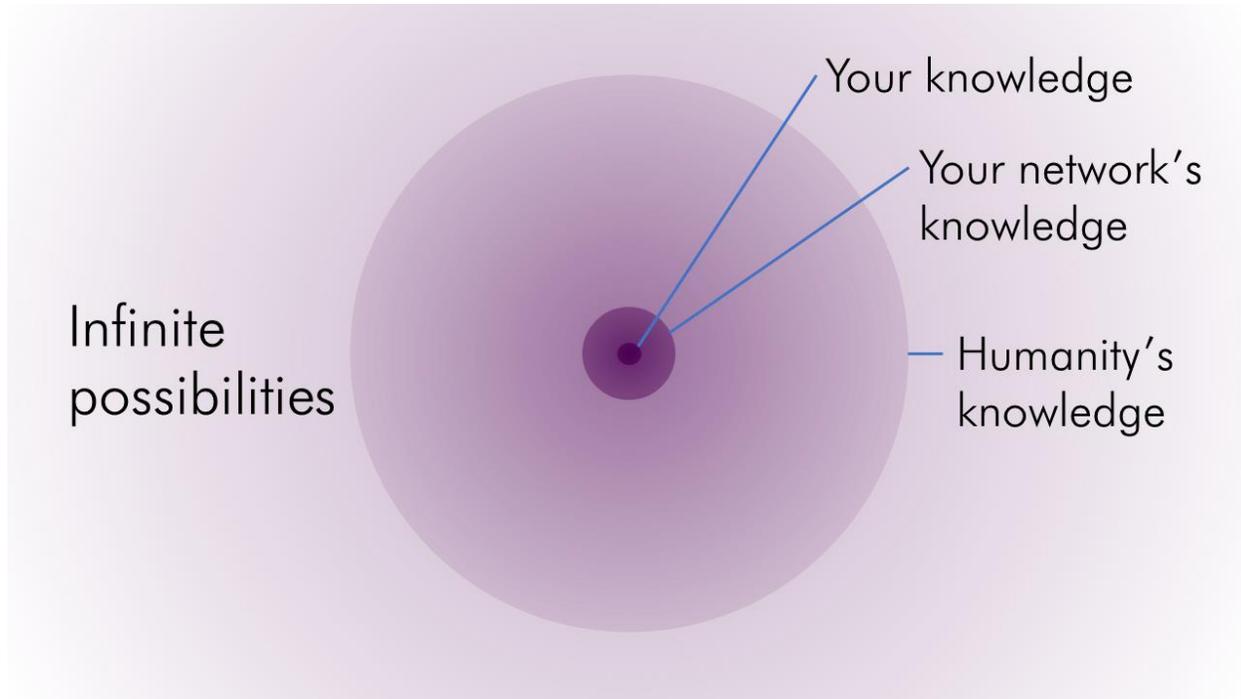
Note that the root of the word question is quest. A firm with “all the answers” and few questions is not curious. It is not questing. At Microsoft, they want “question-it-all” not “know-it-all.”

So, how is your enthusiasm to explore? Research shows that as we age, we are far less open to new and exciting ideas. If we wish to be truly creative, we must acknowledge this sad truth and loosen up our minds. As kids we asked about 66 questions per day, in our mid-forties, on average we ask about 6. (Hopefully, you are now using one of your six to ask, “What can I do to become more curious!?”) At FCG we use the language of “over” and “under” the line. This phrase means are we open and curious (above) or closed and defensive (below). (Carol Dweck has written an entire book on this concept called, “Mindset.” Note: we were using “over/under” before that book was published. We’re just sayin’...)

What is your relationship to feedback? A natural reaction to someone asking you, “Would you like some feedback?” is to brace yourself. To promote creativity, we must understand this natural reaction and then move past it to being open and receptive. Also, are you willing to listen and explore someone else’s idea? Too many times we see conversations in which each person is simply trying to win the day by convincing everyone that their idea is the best. Real creativity involves a genuine curiosity about the ideas presented by others. Have you trained yourself to discover what others are thinking? Or are you still trying to win the day?

Creativity Illustrated

A diagram of creativity and how it relates to our knowledge helps to illustrate some of these concepts:



The center of the illustration – the dark indigo circle – maps the entirety of our knowledge, encapsulating everything we know. Examples like, discounted cash flow analysis, to the difference between macro- and micro-economics, to the best route to take when driving home, to how to talk to our kids. At the edges of our knowledge things start to get a little bit fuzzy. After all, some of the things we know are not known so well. The boundary between what we know and what we do not is our ignorance. Toward the center, knowledge, toward the edge, increasing ignorance.

Expanding outward from what we know is the total knowledge of our network. Note: by definition, our own knowledge is contained within the knowledge of our network. This clearly points to the critical need for investment professionals and our organizations to create an environment in which ideas are communicated freely in order to leverage the knowledge contained within a network. That way, interconnections within the network, and outside the network ensure the sharing of knowledge. In turn, this amplifies the power of the knowledge and increases the possibility for creativity.

An example in the investment space is that if we are missing a crucial idea and need a creative solution, it may be that someone in our network has knowledge about the missing piece. It could be that we have a new insight about how a key economic variable affects real estate prices, but we lack the mathematical expertise to describe it numerically. Maybe a colleague at another firm has this knowledge and when having lunch with her you mention your problem and she shares her mathematical knowledge with you of when she solved a similar problem. Key to this kind of creative solution is our curiosity, cognitive flexibility, and our willingness to communicate our ignorance. In so doing we increase our creativity by tapping the knowledge of our network.

Networks also have limitations in their total knowledge, too. When we cross the ignorance boundary of our network, we then enter the knowledge domain of all of humanity. As before with our network, our curiosity is the thing that propels us forward and demands that we cross boundaries to increase our knowledge. This is also why access to written materials is crucial, and why search engines are valuable aids to creativity. By providing indexed and instantaneous access to knowledge our curiosity may be instantaneously rewarded, and our creativity expanded. In our industry many are trying to leverage Big Data along with AI and machine learning to try and glean new insights.

Yet, humanity does not know everything there is to know and it therefore has its own ignorance boundary/frontier. Lying on the other side of all that humanity knows are nearly infinite possibilities. Exploration of these frontiers of knowledge provide vast opportunity for creativity and the fruits derived from new discovery. Yet, because that information is unstructured it is not enough to just explore frontiers. Instead, IQ and expertise, grants us the power to judge the propriety of these discoveries.

Types of Creativity

Our creativity illustration above helps to map the different types of creativity, as well as suggesting steps we should all take in order to increase our creativity. First, one type of creativity is the recombining of existing ideas into new permutations as facilitated by curiosity. Relative to our diagram, that is connecting the dots between two pieces of our knowledge in a new way to solve a problem or to gain a new insight. Recall that our curiosity is a refusal to accept an answer as final. Instead, we use our knowledge in a novel way. One example is the use of the concept of relating an asset's price to a cash flow generated by the asset in multiple settings, a price to earnings ratio is equity investing, and price to funds from operations in real estate.

Next is a type of creativity that we call 'little c' creativity which is evolutionary in nature. Here our curiosity allows you to make process improvements within a given paradigm. This form of innovation is sometimes underappreciated because it lacks the explosive impact of breakthrough discoveries. An example here might be studying the techniques of police interrogators to better inform our interviews of executive management teams of prospective investments.

Another type of creativity we call 'Big C' creativity which is revolutionary newness. Here there is a sudden knowing, an Aha!, a Eureka!, a Hazah! This creativity moves from an established paradigm to a new one. An example: from horses to trains to cars to airplanes. Usually, these sorts of breakthroughs are accompanied initially by disbelief and ridicule:

"It is an idle dream to imagine that... automobiles will take the place of railways in the long-distance movement of people."

-American Railroad Congress 1913

And

"Flight by machines heavier than air is unpractical and insignificant, if not utterly impossible."

-Simon Newcomb Astronomer 1902

Science shows that these gifts of intuition are rare, but are greatly facilitated by sustained attention, mental silence, and receptivity to feedback. All elements of The Big 5.

In Summary

Curiosity and a sense of discovery are a tonic against the biases inherent with IQ/expertise, where we settle solving a problem solely with our existing knowledge, rather than exploring for new solutions. Our cognitive flexibility is also what leads us to consider previously taboo or unusual ideas and to explore their possible merits. The more we indulge our creativity on our career journey the more likely we are to encounter useful and new permutations of existing knowledge, as well as evolutionary creativity in the guise of 'little c,' and sometimes, the extraordinary results that come with the revolutionary flash of 'Big C.'

Now go adventuring! Or at least ask 7 questions tomorrow...