Make sense of complexity

Listen closely and you will hear the claim from a variety of fields that the world is more complex. Scholars tell us that one of the most important intellectual tools in the face of complexity is "sensemaking"—paying attention to small cues and interpreting them in light of the bigger picture. How do we learn "sensemaking" as part of our portfolio of questioning skills? More precise use of effects questions is one means of working more effectively in complex situations.

Complexity is in the air. Perhaps it is inevitable to talk about the world growing more complex when we are faced with a combination of difficult economic conditions, rapidly changing technologies, shifting global relations, and deeply entrenched ideologies in the midst of social flux. Scholars draw attention to the fact that so much of our daily work is now interdependent, not just because of our tasks but because we are linked through social media and non-stop flows of information. These claims about growing complexity brought us around to re-thinking something we've addressed in the past: How do questions help us tame complexity?

COMPLICATED VERSUS COMPLEX

Researchers who study complex systems offer a distinction between systems that are complicated and systems that are complex. The September 2011 *Harvard Business Review* article entitled Learning to Live with Complexity offers an overview of this difference:

- **Complicated systems** are defined by a large number of elements and many possible interactions, where the elements are relatively independent from one another. Complicated systems can be difficult to understand because of their size, but they usually operate in patterned ways that make them fairly predictable.
- **Complex systems** are defined by a large number of elements and many potential interactions, where the elements are interdependent and diverse (Sargut and McGrath, 2011). In truly complex systems, the same starting conditions can produce different outcomes because of unpredictable interactions within interdependent parts of the system.

While the language of "systems" may sound mysterious, we are surrounded by examples. Dave Snowden offers a child's birthday party as a common experience of a truly complex system, which doesn't follow our typical management strategies. At a child's party, the same starting conditions (e.g. decorations, cake, gifts, and guests) can yield a variety of unpredictable results (e.g. a fun celebration, a messy food fight, a gaggle of jealous sobbing children, or a traumatic visit to the emergency room).

Seeing "complex systems" in this light, we can assume that we are operating in complexity when we are engaged with human organizations. We might just as easily describe an offsite work event as a child's birthday party. The same starting conditions (e.g. a large room, nametags, icebreakers, handouts, group discussion formats, etc.) yield an unpredictable variety of possible outcomes (e.g. a brilliant new strategy, competition between rivals, alienation from the group, a renewed sense of purpose, and so on). Because we can't predict in advance what will actually happen, being prepared means exploring a variety of scenarios and developing a mindset that helps us respond flexibly in the moment.

COMPLICATED VS. COMPLEX SHAPES QUESTIONS

Facing complex problems may feel confusing or overwhelming. Complexity requires us to make sense of the world in ways that are different from planning and forecasting. To make sense in new ways, use more precise questions about effects. This includes asking about likely scenarios, best and worst case scenarios, and leading indicators of success and failure.

COUNTERFACTUAL SCENARIO THINKING

Researchers who study how people make sense of complex events demonstrate that those who do a lot of "what if" thinking about the past tend to be more analytical. Professor Phil Tetlock, author of *Expert Political Judgment*, suggests that counterfactual thinking helps us calibrate past events with possible future events (learn more). In the midst of complexity, we can use Precision Q+A to pose counterfactual questions such as: "What is likely to happen if we do X and don't do Y?" Though we can't easily predict in the midst of complexity, these "what if" discussions help us formulate mindsets and shared assumptions to guide action in the moment.

LEADING INDICATORS

A leading indicator is a small signal that a pattern is forming. For example, one leading indicator of tiredness is a feeling of irritation. When we feel irritated, we aren't so tired that we will fall asleep at our desks (that's a lagging indicator). Yet, if we treat that feeling of irritation as a leading indicator of our mental state, we won't take on a piece of work that involves significant attention to detail because we're too tired to notice small mistakes. Using questions to explore leading indicators helps us see small effects that we can act upon before larger effects become manifest.

MAKING SENSE OF COMPLEXITY IN DAILY WORK

Take our example of planning an offsite work meeting—something fairly common, and not all that complicated, but instead truly complex. Working with this familiar example helps us see how we could use effects questions to make sense of the complexity and be more effective.

TYPES OF EFFECTS QUESTIONS	EXAMPLES FROM PLANNING AN OFFSITE EVENT
Counterfactual or "what if" questions to explore likely scenarios that flow from different decisions	• What is likely to happen if we assign multiple levels of employees to groups? • What if we run out of time before we draw people together in a large-group discussion?
Counterfactual or "what if" questions to explore best and worst case scenarios	• What is the best case result if we use a large-group discussion format? • What is the worst case result if the top management team doesn't attend?
Questions that tap leading indicators of difficulty, distress, or failure	• What are the small signals of a lack of collaboration? • What would we observe first if people began to disengage?
Questions that tap leading indicators of success	• What are the small cues we should watch for when people are highly engaged? • What would we observe first that would indicate successful collaboration?

Notice that the answers to these questions about effects don't necessarily point in one direction—that's their power. Using more precise effects questions helps us understand what to watch for and how to act with flexibility. Anticipating effects from many angles helps us be prepared with a variety of different response strategies. Looking for leading indicators helps us understand how to observe closely and act early in relation to small signals as we navigate the unpredictable.

This Month's Practice

Working in the midst of complexity means working with confusion and overload. When we begin to feel that things are unpredictable, that is a signal that we need to begin making sense of the complexity. When we find ourselves facing confusing outcomes, it's time to begin using questions that help us adapt to changing circumstances.

PRACTICE 1

COUNTERFACTUAL SCENARIO THINKING USING "WHAT IF" QUESTIONS

Monitor your work in the next month for times when you feel confused or encounter unexpected results. Use your confusion as a trigger for asking a variety of counterfactual or "what if" questions. These will help you make sense of the interrelationships in a complex situation. The more "what if" questions you can imagine, the wider your response repertoire. These "what if" questions might sound like: "What if we introduce new resources into the system?" or "What if someone intervenes on our behalf?"

PRACTICE 2

LOOKING FOR LEADING INDICATORS

Making sense of complexity involves knowing what to watch for and using small cues to guide action. Think again of the example of an offsite meeting: you might watch for small indicators of things you want to foster—like positive energy and engagement—as well as things you want to quash—like distraction or interruptions. Find a complex system within your work purview, and ask yourself about leading indicators. Use questions like these, from a recent client conversation: "What are the small things happening now that may not be a big deal, but if they were amplified by 100 times, they would be big problems?" or "What are the small things happening now that may not be big rewards, but if they were amplified by 100 times, they would be big wins?"

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