

# **Precision In, Garbage Out**

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# Precision In, Garbage Out

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Great *decisions* raise the odds of getting great *results*.

Throughout our lives, we intentionally seek improvements to decision-making. We learn techniques to understand customers, speed up production, and work with new rules for corporate governance. We acquire facts and advice instantaneously. We gain new options for our decisions (marketing can now be viral, customization is now possible on a mass scale). We are the best-informed, best-supported decision-makers in history.

As rich and exciting as they are, our new techniques, data, and options don't improve our decision-making skills. For that, we need better thinking.

Great *thinking* raises the odds of making great *decisions*.

We are less intentional about acquiring new skills for thinking than we are about new techniques for decision-making. True, a few thinking skills serendipitously slip in as we reflect on our life experiences. (Whether they are effective is another story, as new thinking can become habit or superstition.) Yet great thinking is a benefit for us as individuals (as it is for our companies), and one that applies in our personal lives as well as in our careers.

We often use the phrase *garbage in, garbage out* when we work with spreadsheets, forecasts, market research, and the like. "Garbage" usually means we don't trust the numbers we feed in. Your quantitative author certainly shares any reader's fondness for good numbers. There's more to it than good numbers, though. Precision in produces garbage out when we crunch good numbers badly.

Before Copernicus, astronomers sought better and better numbers to make their celestial models work. Their equations never seemed to fit, though, no matter how complicated and precise they made them. That's because, of course, the paradigm itself was wrong. The sun does not revolve around the earth.

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Strategists often build spreadsheets and forecasts to foretell the outcome of strategy moves. As we are all too aware, those tools work best when everything is calm and orderly (which is when we need them the least), and they fall apart when something interesting happens (which is when we need them the most). We blame the numbers and equations, and do our best to make them more precise and detailed. It doesn't work, though, because the paradigm itself is wrong. Strategy development does not revolve around accounting rules or trend lines.

(Interesting, isn't it, that we are willing to extrapolate positive trend lines into the future, but not negative trend lines. We assume the positive trends are forces of nature; we work to reverse the negative trend lines. It's worth noting that a trend line that's positive for us may be negative for someone else... who will work to reverse it.)

There are similar issues whenever we think the numbers "speak for themselves." They don't. The numeric voices we hear are our mental models; that is, the assumptions and interpretations and conclusions we apply unconsciously, albeit with the best of intentions.

In other words, we are not thinking greatly.

## **The computer made me do it**

In your observant author's experience, the overwhelming majority of people look at numbers glowing on a computer screen and accept them at face value: "the computer said it." After all, computers are infallible, right? In a sense, they are: when you ask them to add 2 and 2, computers don't sneak in a "3" as a private silicon joke. On the other hand, your faithful computer hasn't the wit to say "you shouldn't be asking me to add 2 and 2, you should be asking me to multiply 3 and 17."

John Allen Paulos, in his entertaining *A Mathematician Reads The Newspaper*, describes a wager between friends. They bet \$64,000 (risk-averse, they are not) on flips of a coin, and the first one to win six flips wins the \$64,000. Friend A is ahead, five to three, when the game is permanently interrupted. The question is, what should they do with the \$64,000? (What do you think?) Is there only one way to allocate the money? If there's

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more than one way, what should the friends do? Calculating is the easy part, and precision isn't even an issue. The hard part is deciding how to decide. (You will find the multiple methods Paulos mentions at the end of this essay.)

Strategy simulation and business war games help strategists because they focus the debate away from precision and toward decisions. They help because they focus on thinking, not calculating. Sure, they involve calculations. As with the \$64,000 question, though, the calculations come *after* the thinking.

### **Thinking first**

Your globe-trotting author and his colleagues have conducted some 100 business war games for major companies. Those war games have involved dozens of industries on six continents, so it's fair to say they cover a broad sample of strategists. Even across that cultural rainbow, certain ways of thinking seem universal.<sup>1</sup>

*Before* a war game, strategists ask garbage in, garbage out questions about the accuracy of the simulation model (if any) and the data being fed into it.

*During* a war game, strategists quickly discover that they will not beat the competing teams by poking them with another decimal point. Rather, they find that winning requires creativity, cleverness, boldness, and paradigm changes... all of which they find (often to their surprise) that they have in abundance. They get rapid feedback on what works and what doesn't, as opposed to waiting years for ambiguous feedback in real life.

*After* a war game, strategists depart with a sense of consensus and commitment to a new direction. Just as important, they depart with a sense of accomplishment and a new set of great-thinking skills.

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<sup>1</sup> That war-game experience has not included start-up businesses, and your cautious author makes no statements concerning their ways of thinking. It is worth considering, though, that the reason why successful start-ups succeed is that they think differently from the industry's incumbents. (We can only speculate why unsuccessful start-ups fail; they're not around to tell us.)

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It's worth noting that we, the facilitators of the war games, do not "give" or "teach" those skills, just as a lecture or a book doesn't make a person able to ride a bicycle. What happens instead is that strategists discover and learn great-thinking skills by themselves.

Business war games provide a safe environment in which strategists learn thinking skills as well as make better business decisions. Here's what Bill George, former top guy at Medtronic who now teaches at Harvard Business School, has to say about learning:<sup>2</sup>

*We've got to get back to giving people opportunities at very young ages to step up and lead without risking the firm. ... People have to learn early. Then when you get to higher-level positions you don't repeat those kinds of mistakes. Good learning organizations allow people to do that – they give them those opportunities, they watch them closely, and then they give them feedback.*

## **Do it yourself**

How can you bring those lessons into your organization? It can be a challenge, especially because we all think we think well. (That includes you and your confident author.) The motivation to learn a new skill comes from an intense experience, not from spreadsheets or PowerPoint lectures.

You can, of course, bring in a business war game. (Don't settle for a simple SWOT-style talkfest. They don't have the intensity or insight you need.) There are other things you can do too, without outside help.

- *Devil's advocates.* During strategy debates, give a couple of people the role of the opposition. (It works better to have a couple of people, not just one.) Their job is to say "in my role as competitor / corporate / customer / regulator / whatever, here's how I would respond to that move."
- *Devil's inquisitors.* Give a couple of people (again, a couple, not just one) the job of asking "why?". Why do you want to do that? Why do you think it will work? Why

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<sup>2</sup> "'Authentic' Ways of Leading", *The Wall Street Journal*, December 3, 2007, page B3.

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didn't it work last time? Why is that approach better than alternatives X, Y, and Z? Why isn't anyone else doing it? Why is everyone else doing it? Why are you so sure?

- *What has to happen?* Before you adopt a strategy, talk through the assumptions that must come true for the strategy to work. Think broadly: it's not just what *we* have to do (or not do), it's also what *others* have to do (or not do).
- *Enlarge your frame.* A common mistake, especially in established companies, is to think in terms of minor tweaks to a baseline strategy. (Although it may feel like genuine strategy development, this is what looks, in sorry retrospect, like complacency or blindness. Why didn't *we* think of that?) Instead, think like an acquirer or an entrepreneur. If you were acquired by a much more aggressive company, what would they want to do? If you were an entrepreneur handed the reins of your business as it exists today, what would you do differently?

Notice the thinking that underlies those recommendations. Not your pensive author's thinking; rather, the thinking that those recommendations would inspire in your organization. The thinking is all about what if, what could, what else. Contrast that to precision in, garbage out processes, which *presume* that a strategy will work and then dress it up for show with decimal-point tailoring.

## **Just say no to precision**

Okay, that's a joke. Not even your hard-boiled author says no to precision. A better phrase might be, just say yes to thinking.

Use the lessons of this paradigm-oriented essay to your benefit. Many, many strategists make precision in, garbage out mistakes. You can avoid them (the mistakes, not the people). In doing so, you develop competitive advantage, for yourself and for your company.

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### *Post script*

Paulos mentions several ways to resolve the \$64,000 question, and that the list below is not exhaustive. He emphasizes that selecting among them has nothing to do with how-to-calculate math, and everything to do with selecting a how-to-think paradigm.

- Split the money evenly; that is, return the friends to their pre-wager positions.
- Split the money with 5/8 going to Friend A (who has won 5 of 8 coin tosses so far) and 3/8 going to Friend B.
- Give all the money to Friend A because Friend A is ahead.
- Give 1/8 of the money to Friend B because Friend B has only a 1/8 chance of winning the bet (B would have to win three tosses in a row, which has probability  $\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2}$ ). Give 7/8 of the money to Friend A. Paulos says this is Blaise Pascal's solution.

## **About the author**

Mark Chussil is founder and CEO of Advanced Competitive Strategies, Inc., a pioneer in the field of business war gaming, and a veteran of 100 business war games for *Fortune* 500 companies around the world ([www.whatifyourstrategy.com](http://www.whatifyourstrategy.com)). He knows competitive strategy, having spent 30 years developing simulation technologies, designing and implementing business war games, advising senior managers, conducting research, and lecturing. Mark is also a founder of Crisis Simulations International, LLC ([www.crisissimulations.com](http://www.crisissimulations.com)). He designed ACS's award-winning ValueWar® business simulator and CSI's patent-pending DXMA™ crisis simulator. Mark has published extensively, and he has lectured and consulted on six continents. He earned his B.A. from Yale and his M.B.A. from Harvard.

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