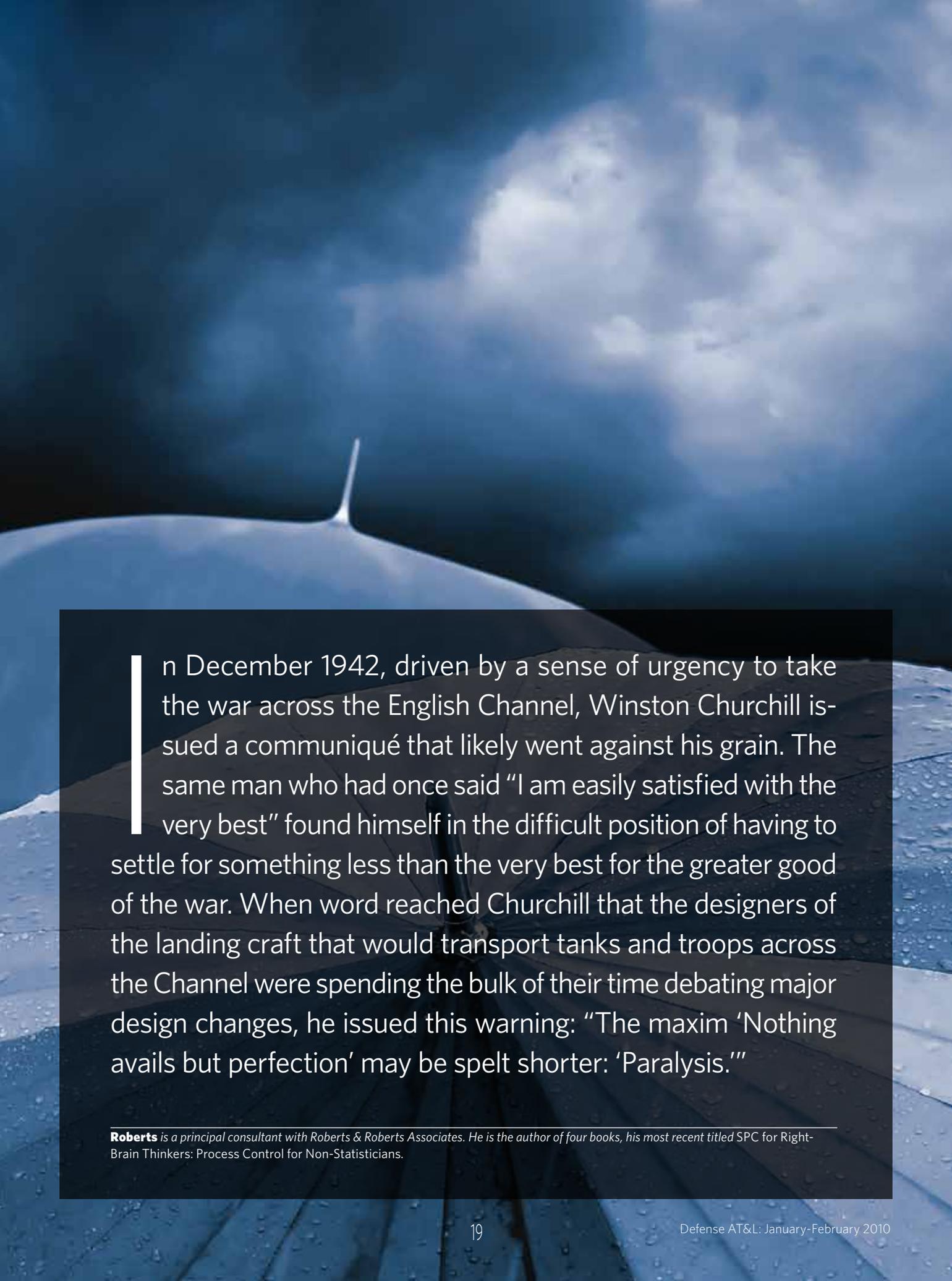


Analysis Paralysis

A Case of Terminological Inexactitude

Lon Roberts



In December 1942, driven by a sense of urgency to take the war across the English Channel, Winston Churchill issued a communiqué that likely went against his grain. The same man who had once said “I am easily satisfied with the very best” found himself in the difficult position of having to settle for something less than the very best for the greater good of the war. When word reached Churchill that the designers of the landing craft that would transport tanks and troops across the Channel were spending the bulk of their time debating major design changes, he issued this warning: “The maxim ‘Nothing avails but perfection’ may be spelt shorter: ‘Paralysis.’”

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A clear case of analysis paralysis! Or is it? A second look at Churchill's wording reveals that a more apt characterization is perfection paralysis—the failure to act when the need for action trumps the quest for perfection. Whether or not hindsight supports Churchill's outlook, this is how he perceived the situation at the time.

Though all of this may seem like semantic hair-splitting, I would argue that the distinction matters, certainly if finding and treating root causes is important. And despite advancements made in program and project management since the 1940s, perfection paralysis is still very much alive and well. Furthermore, it is nurtured by the same “Nothing avails but perfection” mindset that Churchill took issue with—a mindset that positions itself as the moral high road to which all should aspire.

Labels are a communications necessity and convenience. But labels can also be detrimental when they are close but slightly off the mark. Encountering an instance of this early in his career, Churchill coined the expression “terminological inexactitude”—a play on words alluding to the misapplication of labels and, by extension, the damage that can be done by engaging in this practice. I submit that analysis paralysis is likewise an instance of terminological inexactitude, making it difficult to distinguish between the various conditions that fall under the umbrella of this label.

In the remainder of this article, I will examine three problematic conditions that are often attributed to analysis paralysis. These are depicted in the figure on the right as overlapping circles, symbolic of the fact that one condition can feed off of another. In the spirit of Churchill, I have also concocted somewhat grandiose but descriptive labels for the three conditions: Analysis Process Paralysis, Risk Uncertainty Paralysis, and Decision Precision Paralysis.

The Analysis Carousel Riders

When the expression analysis paralysis is mentioned, an image that springs to mind is something akin to getting stuck on an analysis carousel. Hop on board, drop in a coin, and continue riding in circles, at least until the coins are exhausted or someone pulls the plug. It's all about the ride itself—the sights, the sounds, the ambiance, the indescribable exhilaration that comes from crunching numbers, then crunching them some more. True devotees never tire of the ride. Like the Hotel California in the Eagles song, they can check in, but they can never check out. Or so it seems!

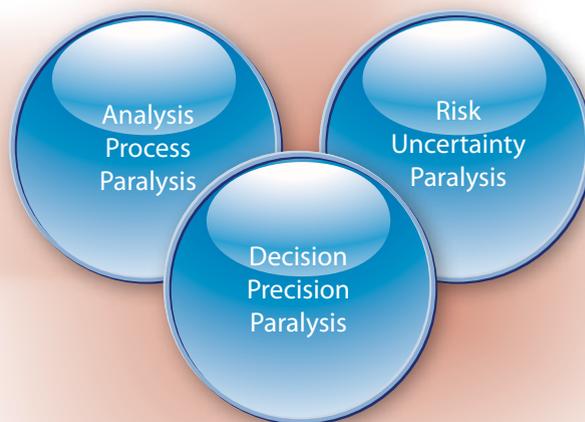
The situation described is representative of the condition I call Analysis Process Paralysis. Of the three conditions I will examine, it is closest to what analysis paralysis has come to mean in popular parlance. Though it may appear to afflict the one doing the analysis rather than the one relying on the analysis, its tentacles can be hard to escape, especially when the stakes are high and the decision

maker is uncomfortable working with less-than-perfect information.

Certainly it's possible to enjoy the process of analysis without falling into the Analysis Process Paralysis trap. Nevertheless, Analysis Process Paralysis feeds on a fascination with analytical techniques. And it is abetted by an array of technology tools that can crunch vast amounts of data, create dazzling displays, and induce a degree of sensory exhilaration on par with that of slot machines and video games. Like all specialists, data analysts do best what they do most. It's called experience, and it is invaluable. But also like all specialists, data analysts are inclined to do most what they do best—and that's where problems can arise.

Some managers may be willing to work around those who fit that description, assuming their history for getting results outweighs any personal eccentricities. Unacceptable are the few (we would hope) whose narrow view of their role causes them to be less concerned with garbage in/garbage out than they are with the time spent between in and out. Those fitting that description are apt to rely on others to ask the right questions and feed them the data they need to do their thing. Questions regarding the source, integrity, or completeness of the data may not concern them as much as it should. Their job, as they see it, is to work with the data they are given.

Analysis Paralysis



Ultimately, the responsibility for avoiding Analysis Process Paralysis rests on the shoulders of the affected decision makers. After all, perpetrators of Analysis Process Paralysis aren't likely to recognize it as a problem in the first place. Decision makers should also be aware of their contribution to Analysis Process Paralysis—in particular, the role that risk aversion and indecisiveness on their part plays in fostering this condition.

This discussion brings us to the following suggestions for dealing with Analysis Process Paralysis:

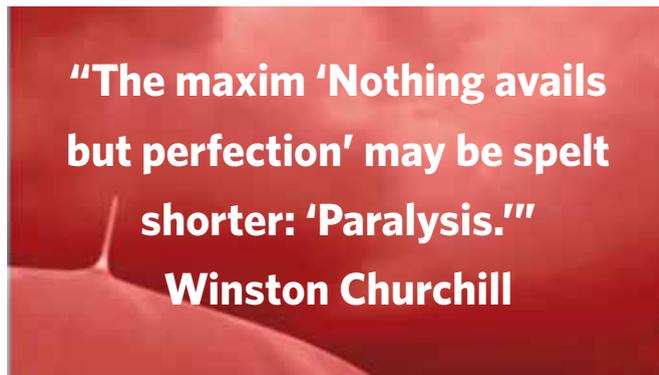
- **Expectation Clarification:** Clarify in your own mind the questions you would like to have answered as a result of analysis and clearly communicate this to all who are involved in the analysis process.
- **Stop Signs and Checkpoints:** Set realistic, unambiguous deadlines for obtaining results from the analysis process; also request status and preliminary results when protracted analysis is unavoidable.
- **Sociable Troglodyte:** Don't allow the data analyst to become a recluse—clarify the data analyst's role and contribution as an active, engaged team member; broaden this individual's perspective on the scope of the analysis process.

The Reluctant Risk Takers

Fear of failure can be a compelling force for doing nothing or doing a lot of something that amounts to nothing. Both are paralytic and non-productive in their own way. More often than not, the "something" in the "something that amounts to nothing" is overwrought analysis. And it is instigated at the behest of the decision maker who either commissions it or condones it under the guise of not wanting to short-circuit the analysis process.

In recent years, much has been said and written about risk aversion—the problems it can cause, how to measure it, and the psychological makeup of the individuals who suffer from it. But regardless of circumstances and individual differences, there is a common impulse that often compels those who are risk-averse to seek more from analysis than analysis is able to give—namely, the elimination of uncertainty. While analysis may yield information that's helpful in accommodating uncertainty, it can't eliminate it. Such is the fate of any endeavor that involves future events. Nevertheless, when the stakes are high, many decision makers seek solace in extensive analysis in the hope that it will eliminate the uncertainty associated with their actions and decisions. This is the basis for the descriptive label Risk Uncertainty Paralysis that is applied to the second analysis paralysis condition.

The distinction between uncertainty and the probability that a particular risk event will occur is a subtle but important one. The probability that a risk event will occur can often be estimated from historical results, controlled experiments, or an aggregation of expert opinions. It is frequently expressed as a single number, such as an index on a scale of one to 10 or a decimal percentage value from zero to 1.0. By contrast, uncertainty is neither measurable nor quantifiable—a fact that can be distressing to decision makers who seek absolutes or those who use probabilities in calculations to establish risk mitigation priorities. It is the root of the fear that makes some reluctant to take risks that have an extremely low likelihood of occurring but will have serious consequences if they do. In addition to influencing the confidence in risk probability estimates, uncertainty also influences the confidence in risk-



consequence assessments. Even if the decision maker has a clear understanding of the near-term consequences of a particular risk event, the long-term consequences may be confounded by factors that no one can predict. What's more, uncertainty may even enter the picture when the manager is trying to identify the risk factors in the first place. After all, there is always the possibility a critical risk factor will be completely overlooked. Considering the multitude of ways uncertainty can influence the accuracy of risk assessments, it's understandable why the fear of uncertainty can have a paralyzing effect on the project, program, or mission—giving rise to extensive analysis in the hope that the numbers, if tortured long enough, will confess to something that will allay the decision maker's fear of the unknown.

Treating Risk Uncertainty Paralysis is a moot point if it is never acknowledged as a problem in the first place. For obvious reasons, few decision makers will likely admit they are guilty of it. But it could also be the case that they simply don't recognize it for what it is. This might suggest that the onus for identifying and treating the problem will fall on the shoulders of a higher-level decision maker—the Churchill, so to speak, who is concerned with bigger issues. On the other hand, prudent decision makers will often request and consider the advice of their trusted lieutenants, perhaps avoiding the need for any intervention from above.

This brings us to the following suggestions for dealing with Risk Uncertainty Paralysis:

- **Certainty of Uncertainty:** Pay attention to the degree that uncertainty influences the accuracy of estimates of risk probability and risk consequences—especially how it influences your confidence in and willingness (or reluctance) to act on these estimates.
- **Bandwidth of Fog:** Rather than single-point estimates of risk probability and risk consequences, consult with others to come up with feasible range estimates for each of these, then account for the range of possibilities in your risk mitigation scenarios.
- **Brainwidth Expansion:** Seek the opinion of others; ask those you trust for their candid appraisal of what, if any-

thing, can be learned from further analysis to reduce uncertainty.

The Option Seekers

The age-old bromide that says “the more we learn, the less we know” has a role in contributing to the condition that can be identified as Decision Precision Paralysis. As one set of options is explored, questions and possibilities emerge that give rise to additional options that come with their own set of questions and possibilities. And so the cycle continues, if allowed to do so.

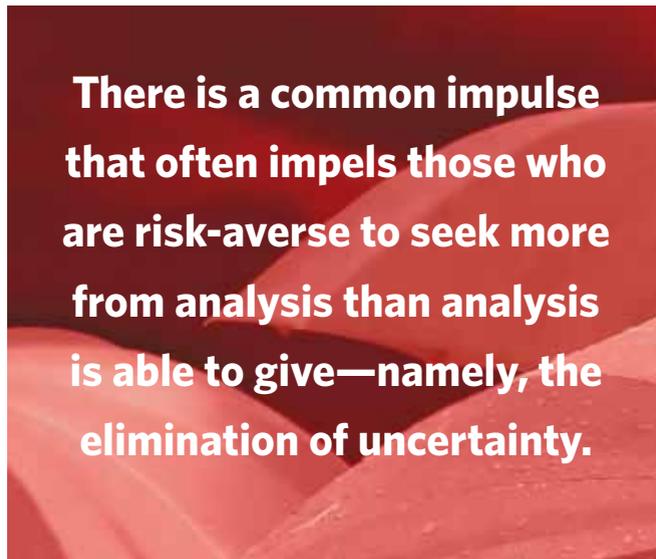
Once the Decision Precision Paralysis cycle is under way, it can be hard to break out of it. While it is often justified on the basis of exploring all the options, there is seldom time to fully explore all of the available options. Furthermore, there is no way of knowing if all of the options have been identified in the first place—fueling a quest to reduce uncertainty, thus blurring the line between Decision Precision Paralysis and Risk Uncertainty Paralysis.

On some level, every decision maker knows that choices involve tradeoffs. Still, when the stakes are high, the fear of making a bad choice can stymie the decision to make a decision. Rather than trust their experience and intuition and then act on the best-available information—as they must do at some point—decision makers will often turn to further analysis or exploration in the hope of making precisely the right decision. But gold plating an important decision through continuous refinement can be even more crippling to a project, program, or mission than the more familiar gold plating of which designers and developers are often guilty.

Another factor that can throw the decision process into a loop is a condition called “choice overload”—the feeling of being overwhelmed from having more options to choose from than there is time available for evaluating them all. As Barry Schwartz points out in his book, *The Paradox of Choice: Why More is Less*, we all like the idea of having choices, but beyond some point, having too many choices becomes an impediment to clear thinking. Furthermore, it’s easy to see how decision gold plating can feed choice overload—and vice-versa—creating a kind of negative synergy between the two. It is also true that what often passes for information overload is actually choice overload.

It would seem that experience is the best antidote to Decision Precision Paralysis. After all, experience is arguably the greatest asset a decision maker has to rely on when it comes to difficult choices, especially in time-critical situations. But experience can also be an impediment when the clock is slowed down and there is time to reflect on prior decisions that resulted in untoward consequences. The “experience demon” in our head may also dredge up an incident from the distant past when disaster occurred following a chain of relatively minor decisions. The economist Alfred E. Kahn characterized such a sequence as the “tyranny of small decisions.” It is a condition that can give rise to disproportionate concern for even small decisions.

Drawing on these observations, we can begin to think about solutions for dealing with the Decision Precision Paralysis problem. Here are three possibilities:



- **Fast and Frugal Decisions:** Identify two to four discriminating criteria that will allow you to quickly pare down a list of options rather than attempting to weigh, score, and compare every option—and hone this skill through practice.

- **Think Strategically:** Consider the costs versus the benefits of delaying a critical decision in order to prolong the evaluation of options.

- **Wise Up:** When evaluating options, run the numbers but also trust your intuition—it is the silent voice of experience that adds wisdom to information.

We may never know at what point in his life Churchill came to believe that an obsession with perfection is tantamount to paralysis. Churchill’s fellow countryman, poet T.S. Eliot, might have had something to do with it when he penned the following lines for a 1934 poem titled “The Rock”:

*Where is the wisdom we have lost in knowledge?
Where is the knowledge we have lost in information?*

Perhaps answers to those important but difficult questions will begin to emerge once the analysis paralysis label is stripped of its terminological inexactitude.

The author welcomes comments and questions and may be contacted at lon@r2assoc.com.