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# A Guide for Making High-Quality Decisions

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## Introduction

Personal biases and hidden assumptions prevent most of us from making the best decision of which we are capable. Instead of making good decisions, we make quick decisions. We often settle on the first solution that comes to mind instead of thoroughly investigating all possible options. Instead of comparing options in a rigorous way, we do a bit of mental math that supports what we already believe and then accept the solution even though it is based on limited, superficially understood information.

So what can you do about it? The answer is to be more careful. Arrive at decisions by following a methodical pathway of analysis. Take charge of how your mind is thinking as well as what it is thinking about. Slow down to ensure you are well informed and are reasoning in a balanced way. The guidelines presented here are a risk management tool. They offer a pathway toward a well-informed decision.

## The Discussion So Far

In the first white paper in this series, [What Is a "Good" Decision? How Is Quality Judged?](#) we defined what a good decision is. The best decision in a given situation is the option that has the highest probability of the most desirable outcome. Knowing the best choice requires that all possible alternatives be identified and then evaluated objectively. A decision maker must know and understand what risks they are taking. They know how good or bad their information is and the biases inherent in their reasoning.

In the second paper, [How to Overcome Analytical Bias to Become a Stronger Decision Maker](#) we described how restrictive mind sets undermine our ability to be objective. Bias, mental laziness, and stereotyping all undermine our ability to be objective. People instinctively make quick decisions following practiced patterns. Problem analysis (which leads to decisions) is performed superficially and by trial and error. Even highly educated people muddle through problem analysis in a haphazard way.

The [third paper in this critical thinking series](#) introduced a cure for shallow and superficial thinking. Critical thinkers pursue reason and logic as the foundation for effective decision making. They "think hard" rather than thinking quickly. Critical thinking is thinking that drills down to the essence of a problem. Critical thinkers make better decisions because they question their own understanding of a subject before making a decision. They are aware of the tendency among decision makers toward lazy, superficial thinking and instead ask questions to illustrate their depth of understanding.

In this paper, we provide guidelines for approaching decisions. The steps are a series of interconnected techniques used in problem analysis and decision making. They are not the only possible set of practices, they are just an example of one approach. Using the steps as a guide will help you overcome the common weaknesses in decision analysis. When a decision matters, there are certain steps you will want to follow.

## Decision Pathway Good Practices

1. Slow down
2. Think critically
3. Restate the problem
4. Focus on major factors
5. Collaborate
6. Impose creativity
7. Convergent and divergent thinking
8. Structure the analysis
9. Ask, "What if?"
10. 100,000-foot review

## Speeding Gets You into Trouble, Slow Down

Most decisions are made quickly. The justification for haste is twofold. The first is that people feel busy and therefore believe that they do not have time to be more careful. The second is that people do not know how to use their time to improve the quality of their decisions. Access to more than a minimum amount of information causes confusion and "muddles" their thinking.

We are all busy, but not as busy as our approach to decision making would suggest. Many important decisions are left until the last minute, forcing a quick decision when it was not originally necessary. Still other decisions are made in a hurry because there are so many decisions to make. There is pressure to move on to the next issue or problem that needs to be solved—presumably to deal with it just as superficially.

As a result quick decisions are often poor quality decisions. The occasional successful outcome and a hectic lifestyle convince us to continue to make hurried choices, even though many of the problems we are solving today are the result of the "quick fixes" of yesterday.

As we've outlined in earlier papers in this series, people do not naturally analyze problems in a systematic and balanced fashion. We are all in a mental box made up of our biases, assumptions, and experiences. Adding to the haze are mental processes that lead us toward shortcuts in the analysis of information. When confronted by a decision, the tendency is to settle on a quick, biased, and convenient solution. If an analysis is performed, it is used to justify the preferred solution. We use the time available to prove to ourselves that the convenient solution is right rather than investigating why it might be wrong. We seek information that supports our perspective rather than question it.

In order to arrive at consistently high-quality decisions, we need to slow down. Our thinking needs to be dissected. Sources of information need to be questioned and assumptions should be verified. Important decisions deserve some patience. Time is needed to:

- Clarify the problem being solved
- Identify the options
- Compare those options
- Choose between the available options

In order to arrive at the best possible solution, each of the four decision-making steps needs to be carefully managed. That takes time and attention.

## Think Critically

We need to ensure that our thinking is balanced, our logic sound and our information sources are complete and correct. The techniques for doing these things are the role and function of critical thinking. Critical thinking helps to reveal the gaps in our knowledge and imperfections in our reasoning that also stem from conscious or unconscious assumptions and mental shortcuts. To arrive at better decisions, it is necessary to ensure that our reasoning is consistent and methodical.

The tools of critical thinking provide a format for questioning the reasoning and logic of the inputs to the decision-making process. The intention of critical thinking is to separate the known from the unknown and the subjective from the objective. Ask questions about all aspects of the problem.

- What are the sources of information?
- Is there bias in the information?
- What is the point of view of the person(s) interpreting the information?
- What concepts are inherent in the reasoning being used in the evaluation of options?
- Have all possible options been considered?

The outcome of critical thinking is to reveal what one does not know. It reveals the weaknesses in our knowledge. It is only after we have learned enough that an informed decision is possible. Critical thinking should permeate all of our actions and efforts to arrive at a decision. It is the glue that holds together the steps toward better decisions.

## Restate the Problem

Before attempting to identify solutions to a problem, it is very important to take a few minutes to ensure that you have correctly identified the problem. This technique is called "restating the problem." It asks, "How might the problem be interpreted by other people?" and "What is the problem we are really trying to solve?"

### Family Transportation Example

Your family car is wearing out and starting to break down. The car is currently used, among other things, to commute to work and to deliver the children to all of their varied activities. Your home is within walking distance of a shopping mall and all essential services. Your work is accessible by public transit. The car is only necessary for recreation and as a convenience. When the car first started to become undependable, you and your spouse realized that the car needed to be replaced soon. In the three weeks since the first major breakdown, you have both been considering what type of car to buy.

### Defining the Original Problem

What car should we buy to replace the old?

### Restate the Problem

- How can we change our lifestyles to avoid needing a car?
- What modes of transport would be best for our family?
- What type of transportation services does our family need?
- What is the most cost effective transportation technology we could choose?

The way you perceive a problem determines the angle or approach that you should take when considering solutions. Nothing contributes more to the quality of a final solution than for you to ensure that the right problem is being solved. Narrowly defining, or too broadly defining, a problem at the outset of an analysis will result in less than optimal solutions. The trick is to find the right balance. The technique of restating the problem serves to clarify the purpose or intent of the problem solving effort by re-defining the problem in as many ways

as possible. Let the ideas flow without initially evaluating them. The objective is to broaden one's perspective before zeroing in on the central issue(s) for which a solution is required.

This process of restating a problem is most effective if done from a variety of different perspectives (mindsets). The human mind has a ferocious tendency to become narrow. The moment a problem is defined, our thinking about it becomes more focused—that is, more biased. A simple and effective way to broaden one's thinking is to reconsider the problem from as many different and conflicting viewpoints as possible. If you are developing solutions for someone else's problem it is particularly important to ensure that the problem owner be involved in the problem restatement process.

## Major Factors

All problems have, at their root, a few critically important factors that must be addressed in order for a good solution to be found. Major factors are critically important considerations that are central to the definition of a good solution. Identify major factors at the beginning of the analytical process and remain at the forefront of analysis throughout. Major factors are the driving force in a situation. They are not what any one individual believes to be true because of mindset or bias, but are centrally important to the issue at hand.

### Family Transport Example:

Major factors:

- Ability to deliver children to their activities
- Dependability
- Operating cost
- Convenience

Secondary factors:

- Ability to drive to work (secondary because there is public transit)
- Environmental footprint
- Recreational use other than regular activities
- Purchase price

Identifying major factors is not always easy. It requires that we overcome the effects of bias and mental shortcuts that would otherwise lead us toward a simplistic view regarding the problem. The major factors are "must-haves." Any solution that does not fulfill the criteria of the major factors is not a solution. However, how we choose to define those criteria depends on our own values and biases. Secondary factors, which are issues that may be pertinent but do not dominate the selection of a solution, are considered only after the primary factors have been addressed. A solution must first satisfy the major factors, then the secondary factors, and possibly even a tertiary layer of considerations after that.

The biggest benefit of identifying major factors is a dramatic decrease in the complexity of the problem being analyzed. Focusing on major factors greatly simplifies problem analysis. Instead of trying to juggle ten or even twenty considerations when comparing a solution, we only need to worry about three or four at a time. It is helpful to identify major factors while restating the problem (step 3). Clarifying the fundamental question at issue (problem restatement) goes hand in hand with defining the must haves in any suitable solution. In combination, the two techniques encourage divergent, imaginative thinking.

Use the major factors to keep the analytical process on track. The list of factors and their priorities will often be modified as more is learned during analysis, but they remain the central focus.

## Impose Creativity

In order to arrive at the best possible decision, it is necessary to have identified all possible solutions. In order to do that it is necessary to break out of restrictive mindsets that limit the field of view. Doing that requires creativity. Unfortunately, creativity does not come easily to everyone. Most people are not particularly imaginative. Getting some people to brainstorm new ideas is like digging for water in the desert – a lot of work with little to show for it.

Why? Because people become increasingly judgmental as they age. To be judgmental in this context is to have “restrictive or conditioned” thinking. Our minds put limits on what we think. The mental box that we are each in is created by judgments about how the world works and how people should behave. The more we think we know, the less we imagine how things could be.

In order to impose creativity on the analysis of problems, we need to rekindle our imaginations. Like the techniques used to overcome mental barriers, the techniques for enhancing creativity are meant to overcome the barriers set up by judgment. The upcoming fifth white paper in this series, *Creativity in Decision Making – Why Didn't I Think of That?* discusses the tools and techniques of creative problem analysis.

## Focus In and Out (Convergent and Divergent Thinking)

To focus in and out is to think about the details of one possible solution (“in”) and then stop thinking about that solution while considering a different possible solution at the same detailed level (“out”). Focusing in is drilling down to the detailed implications and consequences of one possible solution. It is convergent thinking. Focusing out is stepping back from a previously considered solution and searching around for another fresh idea that deserves consideration. It is divergent thinking.

Our minds do not need to be taught to focus in. Doing so too early during problem analysis is one of the leading causes of bad decisions. What typically happens is that when a problem is identified, the decision maker conjures up a possible solution in their heads. Then they imagine some of the details of how the solution will work (convergent thinking). Having expended all that mental energy thinking about a solution, they become enamored with that solution to the exclusion of all others. The search for alternative—possibly better—solutions ends. Any additional problem analysis is used to prove that the convenient (already identified) solution is a good choice, or at least a good enough choice.

Natural, mental forces encourage our minds to select convenient solutions and to glom onto them if they seem to provide a minimally acceptable solution. This process is referred to as “satisficing” or generating quick solutions that are convenient and appear satisfactory. The trick to becoming better decision makers is to recognize when we are focusing in and are at risk of becoming unduly enamored with a particular solution. Learn to take control of your thinking and actively reverse the direction of your analysis.

This does not mean that you should not think deeply about a particular solution. Just do not become convinced that any one is the best solution until you give all other options the same degree of consideration. Note that while focusing in is the natural tendency, and does not need to be taught, it is nonetheless essential. Both inward and outward focusing (convergent and divergent) thinking are necessary to arrive at good solutions. Focusing out is, in effect, a creative tool as well as a means of ensuring that the analytical process is not stuck in a rut. Focusing out helps prevent the analysis from taking a single path toward a satisficing solution. Convergent and divergent thinking, and being aware of the mode we are in, are both essential problem-solving skills that contribute toward well-informed, reasoned and balanced decisions.

## Structure

Structure in the context of decision making means any technique for organizing information other than randomly managing it in your head. Writing out a grocery list is more structured than hoping to remember what you need when at the store. Writing out a list divided into related items is even more structured.

Most people cannot solve problems involving multiple variables in their heads. You cannot effectively evaluate a problem with five potential solutions and three important considerations your head, unless maybe you are a math genius. This is not to say that people do not do such analysis in their head. They typically do and the decisions that follow are incoherent. Even a modestly complex decision made in someone's head will suffer from gaps in logic, missing information, and bias. In short, it will be a poor decision.

The alternative is to use structuring techniques. Structured analysis opens one's mind to alternatives and ensures that those alternatives are fairly and logically evaluated. Structuring is not analysis. It supports analysis. A roadmap is a way of structuring geographical information about distances and relationship between locations. It does not decide what route to take between two locations. The choice of route comes from analysis of the options (based on the clarity provided by the structured map) followed by a decision of what route seems best.

The route you choose is not determined by the way the data was structured. It is determined by the interplay of variables such as distance and speed limits that are illustrated by the structured information. Structure provides the opportunity to compare alternatives. The decision is then based on how the various options satisfy the major factors. Structure feeds analysis.

## What If?

The question, "What if?" is used after a tentative decision is reached. It means asking ourselves:

- Is there any information that, if it were available, would change my decision?
- Have I investigated all logical options?
- Could I make this decision and end up looking like a fool because of obvious considerations that I have overlooked?
- Have you been thorough enough?
- What is the risk of having overlooked important information?
- Is there some bit of information out there that would change your mind? If so, isn't it worth a bit of further investigation?

The what-if question period is a chance to reassess the nature of your analysis. If you have been perfectly thorough and balanced, there will be nothing to worry about. If not, or you are not sure, take a minute to ask yourself how you might prove your preferred solution wrong.

## 100,000-Foot Review

The final step is a sanity check. It is possible to get so involved, so close to the analytical process, that one loses a sense of perspective. Before making a final decision it is always best to step back—way back—and ask yourself (and others) if the decision makes sense. Are you still solving for the same problem that you started with? Has the solution grown out of proportion to the original issue?

For example, you start out a project with the intention of increasing the security of your home's front door but instead you end up with a plan that involves a complete redesign of the front of your house. All too often problems will morph during the analysis process. The problem you started working on changes into something else. Use the 100,000-foot review to make sure that the problem has not developed a life of its own.

## Conclusion

Problem analysis guidelines are meant for important decisions. They are compiled from the recommendations and experience of many talented people and provide a pathway to follow when approaching decisions in which the outcome matters. The role the guidelines serve is twofold. First, they serve as a counterbalance to the mind's tendency to make decisions based on biases, assumptions, and a narrow point of view. These natural mental forces are insidious and powerful. It requires effort and practice if balanced, reasoned decisions are to be generated.

The second role of the guidelines is to encourage a structured approach to the analytical process. Structuring helps us to make sense of complex problems and to compare elements in a comprehensive rather than a scattered way. Structuring one's analysis forces one's logic out into the open and helps to illustrate the "method to the madness." Structure does not replace analysis; it portrays information in ways that can be more readily interpreted.

In the end, the best decision in any given situation is a subjective choice. If you understand the risk that you are taking when making a decision, then you are making a high-quality decision. This is true even if others consider your decision to be wrong because they disagree with your interpretation of the information. Decisions are opinions. They are ultimately a subjective choice that is a consequence of the decision maker's history, education, state of mind, and other influences. The analysis that leads up to a decision can (and should) be objective, but the final decision is ultimately based on the decision maker's viewpoint.

A decision is a judgment call based on the available information and the decision maker's interpretation of it. Following the decision-making guidelines doesn't change that. They will not ensure consensus. However, they will make any decision more easily explained. The steps to decision making described here will help anyone to arrive at a better understanding of the choices that are available and their relative merits. It will help anyone make better decisions. That, in turn, will make it more likely that decisions end up having fortunate outcomes.

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[What Is a Good Decision? How Is Quality Judged?](#)

[How to Overcome Analytical Bias to Become a Stronger Decision-Maker](#)

[The Role of Critical Thinking in Problem Analysis](#)



## About the Author

Brian D. Egan has been a contract instructor for Global Knowledge since 1999. He divides his time between management consulting, project management, technical writing, and professional development training. Brian has started companies in such diverse fields as fish farming, woodwork, gift manufacturing, and catering. He is the author of numerous training courses relating to professional skills, project management, and decision making.