

B U S I N E S S V E R S I O N

# *Animal Crackers*



The serious, step-by-step way to crack your  
toughest business problems  
using the genius of Natural Selection.

By Stephen Grossman and Peter Lloyd

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## Up from the Apes

Throughout history, animals have inspired many inventions and insights.

- The study of bats suggested sonar.
- Caribou were the inspiration for snowshoes.
- William Harvey discovered how the circulatory system works by studying fish.
- Buckminster Fuller's geodesic dome is patterned after the eye of a fly.
- Even the lowly barnacle yielded new adhesive products.

You, too, can walk in the shoes of the great inventors and solve difficult business problems by following the Natural Selection process outlined in this book. You'll be asked to think about things in new and unusual ways. If you need to, go slowly and step by step the first time through.

The more you practice, the better you'll become, and the powerful results you'll achieve will prove your effort well worthwhile. After a while, you may even want to modify Natural Selection to make it work better for you.

## Creative Animals

*Every single species of the animal kingdom challenges us with all, or nearly all, the mysteries of life.*

—*Karly von Frisch*

Animals, our next of kin in nature's infinite family, provide the most striking and useful examples of evolutionary adaptation. Using the process outlined in this book, you will learn how to adapt animal survival mechanisms to solve your most perplexing problems.

Unencumbered by bureaucracy, morals, fashion, and complex conceptual thinking, animals attack problems with an instinctive, all-or-nothing determination. As children, we did much the same thing. At birth we confronted an utterly new world, head on, and figured out how to deal with it. We learned to walk and talk without formal instruction. Almost everything we did was naturally creative. Instinctively determined to learn, we mumbled and tottered fearlessly toward our goal.

As we left early childhood, we just as naturally began to rely more and more on the habits we developed. After all, it wouldn't make sense to learn how to tie our shoes every morning. While good habits make productive living possible, they also make it increasingly difficult to form the new thinking patterns required to invent breakthrough solutions. As we age we tend to fit every new experience into patterns we've already formed and overlook life's surprising possibilities. There are, of course, notable exceptions: Picasso, Linus Pauling, and Buckminster Fuller all had brilliant creative insights well into their 70s. Unfortunately, they are just that—exceptions—until now!

Research within the past 30 years provides new insight on how such highly creative people break habitual thinking patterns. We've incorporated these insights into an easy-to-understand and simple-to-follow process modeled after the ideas of Charles Darwin in *The Origin of Species*. Now anyone can

think like a creative genius. If you apply yourself to the Natural Selection process, you can create like one, too.

*Genius only means an infinite capacity for taking pains.*

—Jane Ellice Hopkins

Among the things we've learned about the creative process is that it starts when the solution-seeker, following a familiar problem-solving path, fails to find a solution and starts considering unexplored domains. Suddenly and unexpectedly, a new solution presents itself from an unpredictable source.

This creative experience is so surprising and rewarding that, in the past, it has been attributed to the Muses or some other kind of creative spirit. More recently, it's been defined as the "Aha!" or "Eureka!" experience. No matter what we call it, we now understand that it happens most often to people who venture with an open mind into the unknown, fearlessly determined to solve their problem.

*Genius, in truth, means little more than a faculty of perceiving in an unhabitual way.*

—William James

As you use this process, animals will help you unload your prejudices, change your point of view, use a different style of thinking to make new associations, and choose an idea to run with. This is a tall order, but then you have an incredible faculty that can help you meet the challenge. It's called your intuition.

There's nothing mysterious about this power, even though we haven't begun to understand exactly how it works. Suffice it to say that part of your brain operates without your knowing consciously what it is doing. This is absolutely necessary. Just as your pocket calculator doesn't show you all the steps it goes through to display the square root of 13, your brain provides you with information, feelings, and hunches without showing you the details.

Think about one of the most important decisions we make in our lives—choosing a mate. Imagine trying to decide whom to marry based on psychological profiles, health exams, compatibility tests, genetic screening... Instead and wisely so, our choices are primarily emotional. We fall in love. We fall out of love. We break our hearts and come back for more. And yet a study done several years on the difference between successful and unsuccessful marriages found the overwhelming difference to be the couple's initial degree of romantic love. They were crazy about each other.

As human animals, we have the incredible ability to think. Yet we've learned that our instinctual and intuitive powers are just as valuable, if not more so. Since using intuition is difficult, we look to the animal kingdom for inspiration. Among our neighbors on this planet who can't think, we find many who were thriving long before we arrived and may very well thrive long after we're gone.

Have you ever watched a wasp try to fly through a windowpane? She drives relentlessly against the glass, instinctively heading for the light beyond. Not until she gives up and climbs over the window frame does she succeed. Creative people relentlessly fly against what seem to be impenetrable barriers as well, because they see something better beyond. From the wasp we can learn that only after we fail do we seek a way around.

The Natural Selection process asks you to abandon your old ways of problem solving and to make connections between your problem and intriguing animal behavior. Many creative people do this unconsciously. This book will help you get into the new habit of thinking like a creative genius.

*Success is 99-percent failure.*

*—Soichiro Honda*

Finally, although the process is simple, creating brilliant solutions often demands repeated, ongoing redefinitions of the problem until a totally wonderful solution presents itself. Whatever you do, don't discourage. All you need is the belief that the solution exists, and the dedication to keep searching for it. Remember, another name for Natural Selection is "survival of the fittest."

## Natural Selection

Many years ago, one of us had the pleasure of taking an especially difficult college physics, final exam. One of the questions asked us to calculate all the forces that were exerted on a lunar probe at the moment of impact. Needless to say, there were muffled sighs of frustration all around as the exam progressed. Finally in a fit of desperation, one student raised his hand and asked the professor if he would give just one hint. The professor replied, “I’ll give you more than a hint. I’ll give you the answers. All the answers are on your slide rule. All you’ve got to do is find them.”

The same is true for virtually every difficult problem we encounter. All the answers dwell in the wisdom of the world around us. Over the past five billion years, the untiring trial-and-error process of evolution has selected ingenious solutions for the most intractable challenges to survival. We can see these brilliant solutions in the ways whales communicate over incredibly long distances or in the hummingbird’s ability to hover almost motionless as she feeds. It’s safe to say that Mother Nature has solved any problem you find difficult to solve already in one way or another through her process of evolution.

Darwin proposed that all creatures adapt themselves to the ever-changing world by a process called Natural Selection. As species adapt from generation to generation, nature “selects” those species better suited to survive than their competitors. The most revolutionary aspect of Darwin’s theory is that evolutionary change need not be planned or guided by some overarching intellect. It occurs because some random mutation wins the right to survive.

We can see the process of Natural Selection in the evolution of human culture, ideas, invention, as well as in brilliant business breakthroughs. Inspired by this observation, we have applied Darwin’s theories to solving business problems. Just as in the natural world of plants and animals, there need be no outside force guiding the creation of brilliant breakthroughs. However, three things are indispensable:

1. Extinction—dissatisfaction with the existing ideas as remedies for a situation causing concern.



2. Mutation—a chance event or random occurrence that produces a new idea, and
3. Selection—a recognition system able to seize upon the new idea and use it to replace existing patterns.

In nature, the recognition system is embodied in the physical environment in which the new mutation will thrive. In business, it is developed, in part, as a result of the failure experience. In fact, without failure, there can be no creativity!

## **Three Phases of Natural Selection**

Most creativity arises from necessity. We perceive a threat to our success or survival. Something's wrong and needs fixing. Or we simply find ourselves short of where we want to be. Like any other child of nature, we start looking for a solution among the ways we've solved similar problems in the past. If we can solve our new problem with a tried-and-true solution, we usually do.

When these old ways fail, we're forced to consider new ways. But before that happens, we need to convince ourselves that the old ways won't work. We need to drive our old, tried-and-true ways into extinction. Only then are we capable of truly appreciating unusual approaches and unique ideas as potential solutions.

## Extinction

The great writer and philosopher, Arthur Koestler, suggested the term *bisociation* to describe a connection or an association between two or more previously unconnected elements. In order to appreciate such unconnected elements, we typically have to experience a shift in perception, a change in our point of view. Most of the time, this shift is triggered by the inadequacy of what has come before.

Consider the Judeo-Christian story of creation. Man came into being when God saw something was missing. Columbus ventured over the western horizon because the old route to the Far East was too long. Einstein developed the theory of special relativity when his insights into the nature of light made the conventional definitions obsolete.

The better we understand the inadequacy of the way things are, the more eagerly we will accept, the more prepared we will be to recognize, the bisociative connections Koestler talks about. Of course, even creative gods like Einstein have admitted it's not easy to change the way we look at things.

*Few people are capable of expressing with equanimity opinions which differ from the prejudices of their social environment.*

—Albert Einstein

For this reason, in the Extinction Phase, we must thoroughly examine our previous failures in order to convince ourselves that an entirely new solution is absolutely necessary. In our Natural Selection process, we will analyze our failures in order to understand why they don't work. This insight will be the starting point on our creative journey.

## Mutation

Once we honestly and thoroughly abandon our old view, we move into the Mutation Phase. Now we shift gears and start exploring territory that, on the surface, may not appear to have anything to do with the problem. We will consciously mutate the way we think in order to achieve new perspectives.

One of these new perspectives or Mutations will suddenly and unexpectedly appear as an elegant solution to our problem. If we're lucky, the perfect Mutation will present itself in a sudden flash of inspiration.

For example, August Friedrich von Kekulé, a professor of chemistry at Ghent University at the end of the last century, worked for years on elucidating the structure of the chemical compound, benzene. Finally, one night, sitting in front of his fireplace, he dreamed the solution.

*I turned my chair to the fireplace and sank into a doze. Again the atoms were flitting before my eyes. Smaller groups now kept modestly in the background. My mind's eye sharpened by repeated visions of a similar sort, now distinguished larger structures of varying forms. Longer rows frequently rose together, all in movement, winding and turning like serpents; and see! What was that? One of the serpents seized its own tail and the form whirled mockingly before my eyes. I came awake like a flash of lightning. This time I spent the remainder of the night working out the consequences of the hypothesis.*

Kekulé's ability to transform his vision of a circular serpent into a ringed chemical structure, mystical thought it may seem, remains one of the most striking illustrations of how Mutations work.

While all Mutations are not solutions and do not always present themselves so dramatically, all creative breakthroughs involve a Mutation, whether the creator is aware of it or not. Natural Selection provides a step-by-step process, which sets the stage on which Mutation is most likely to occur. More

importantly, it stimulates the making of Mutations by offering for your inspiration more than 100 fascinating examples of how the animal kingdom has solved survival problems.

## Selection

In the third and final phase, which Darwin calls the Struggle for Existence, we translate, reshape, and modify our Mutation into a workable solution. This phase, by far, is the most difficult. It's hard to make new ideas work. We are too familiar with the sobering consequences of Murphy's Law. We help you in this section by providing a technique designed to access your deepest creative reserves. With the help of our Survival and Extinction Prompts you make the idea practical, while still retaining the power of a wonderful solution.

If you still fall short of a wonderful solution, it sends you back to the extinction phase—you'll have better luck next time, because you've failed once again. But now your understanding of what doesn't work is deeper and your chances for unearthing a new, truly wonderful idea will be enhanced.

*There's nothing so sublime as sitting and sipping a cup of tea in full knowledge of events that have not yet taken place.*

—Wo Fat, Hawaii Five-0

## **Natural Selection Process**

The 14-step Natural Selection Process unfolds in three parts: Extinction (three steps), Mutation (seven steps), and Selection (four steps). We present each step below with a brief discussion, concise Action steps, and an Example of a real problem solved using the Natural Selection process.

We recommend that you read the entire process first, paying particular attention to how the Example problem has been solved. Then apply the process to your own problem. When solving your problems, make copies of the use blank Worksheets (pages 39-42) and fill them out as directed in each step. You may copy and distribute Worksheets as necessary.

You will need a set of Animal Territory Cards to perform the Natural Selection process. If you do not have a set of cards, you can order them online. <http://gocreate.com/animal/order.htm>

Use the Survival Prompts (page 43), and Extinction Prompts (page 44) as directed in the process. There should be no need to make copies of these tools.

## **Extinction Step One: Out with the Old**

### Action

1. Briefly describe the situation causing concern on an Extinction Worksheet.
2. Jot down three to five sentences.
3. Don't worry about the details right now.

*What's keeping you from having what you want or doing what you want to do?*

*Answering this question can go a long way toward putting you on the right track. Your answers will also help make sure you stay on the trail. Describe what you're after in this first step of Extinction. We'll check back at the end to see whether your solution has solved the problem as you've described it.*

*In the example we'll use throughout, you've invented a new product with outstanding market potential. Now management must get behind it.*

### Example

You've created a product with outstanding market potential. But you just can't seem to get management behind it.

We're all familiar with Arthur Fry's Post-Its. Fry needed to be just as ingenious to sell his idea, as he was to invent it. We don't know exactly how he arrived at his final sales solution, but here's how the Natural Selection process might have gotten him there.

## Example

### **Extinction Worksheet**

**Briefly describe the situation causing concern.**

*New adhesive system. When coated on a sheet of paper, temporarily adheres to any other non-stick surface until user separates them. Unable to interest decision makers in this process.*

**Identify what you stand to lose if the problem is not resolved.**

**List all the ways you've failed to solve the problem.**

## **Extinction Step Two: Check Motivation**

### Action

1. Identify what you stand to lose if the problem is not successfully resolved?
2. Summarize your answer in one to three sentences.

*Imagine that you have an important meeting to attend. Under which of the following conditions would you take a new route, which might save you ten minutes?*

- 1. Saving ten minutes might allow you to find a better parking space.*
- 2. Not taking the new route will make you ten minutes late for the meeting.*

*If you're like most people, you've chosen no. 2. The more you have to lose by leaving the situation as it is, the greater your chances of finding an exciting and successful solution to your problem. The threat of loss is a much stronger motivation than the hope of some gain or accomplishment.*

*Both your company's business losses as well as your personal losses are important.*

### Example

Both your company's business losses as well as your personal losses are important.



## Example

### **Extinction Worksheet**

#### **Briefly describe the situation causing concern.**

*New adhesive system. When coated on a sheet of paper, temporarily adheres to any other non-stick surface until user separates them. Unable to interest decision makers in this process.*

#### **Identify what you stand to lose if the problem is not resolved.**

*Applications are enormous! If we don't take advantage of this, we will lose a huge opportunity, both for the company's bottom line and for my personal movement up in the organization.*

#### **List all the ways you've failed to solve the problem.**

## **Extinction Step Three: Find Failure**

### Action

1. List all the unsuccessful ways you've tried to resolve the problem in the past.
2. The more ways you list on your Extinction Worksheet, the greater your chances for a brilliant solution this time.

*Remember the last time you misplaced your car keys? If you're like the rest of us, you started looking in the usual places. When that failed, you searched again and more carefully, in the same places! Still, no keys. You retraced your steps. Again, no keys. Finally you began to look in places you'd never expect to find them. Only then did they appear.*

### Example

You've tried going through official channels and considered marketing your new product yourself.

## Example

### **Extinction Worksheet**

#### **Briefly describe the situation causing concern.**

*New adhesive system. When coated on a sheet of paper, temporarily adheres to any other non-stick surface until user separates them. Unable to interest decision makers in this process.*

#### **Identify what you stand to lose if the problem is not resolved.**

*Applications are enormous! If we don't take advantage of this, we will lose a huge opportunity, both for the company's bottom line and for my personal movement up in the organization.*

#### **List all the ways you've failed to solve the problem.**

*Showed the product to VP of R&D. He was interested but unwilling to carry the idea any further.*

*Showed it to marketing decision makers for all of our various businesses, but it received a lukewarm reception.*

*Thought of approaching the CEO, but politically, that would be a dangerous option. Also thought about buying the idea outright from the company, but I can't afford to.*

## **Mutation Step One: Face Failure**

### Action

1. Look over your responses to the previous step.
  - Why do you think your initial approaches didn't work?
  - What seems to be missing in these attempts?
  - What pattern seems to emerge?
2. Identify at least one underlying issue on your Mutation Worksheet.

*Analyzing your failed attempts is the first step in problem redefinition. By directing your attention to what's wrong with your method, rather than what's wrong with the situation, you start to understand what you don't know.*

*This is a big step in the creative process. By thinking about why you've failed, you step outside of yourself and escape your habitual patterns of thinking. You become more conscious of the way you think. Now it's easier to shift your perspective.*

*At the same time, you're allowing the intuitive part of yourself to be heard and to suggest where the answers may lie.*

### Example

The issue in this case is simply your inability to take on the selling step all by yourself.

## Example

Mutation Worksheet	
<b>Underlying Issue:</b> <i>Lack of power</i> <i>Inadequate selling skills</i>	
<b>Observations:</b>	<b>Ideas:</b>

## **Mutation Step Two: Find Solution Territories**

### Action

1. Go to the Animal Territory Cards and browse the Solution Territories, the text-only side of the cards.
2. Find three interesting Solution Territories that seem somehow related to your response to the questions in Mutation Step One.
3. If you can't find three Territories that relate, find three that interest you in any way.

*Notice that each Solution Territory, though not specific, is unique. That is, many of them fall into the same general categories, yet each is slightly different from all the others.*

*It certainly would be nice to find exact matches between your underlying problem and the list of Territories. However sometimes a choice made on the basis of interest alone is more powerful than a precise fit.*

### Example

Among the Solution Territories you'll find several that fit your situation and problem or simply intrigue you. You've decided to use at least three.

Finding hidden support.

Increasing span of control.

Creating independence.

## Mutation Step Three: Get the Big Idea

### Action

1. Turn over your Animal Territory Cards to see Animal Adaptations you've selected.
2. Choose the Adaptation of the animal that intrigues you most. Make this intrigue your only criterion for selection.
3. If your animals spark no interest, make another choice and repeat this step.

*The animals you've chosen will lead you to solutions to your problem. Don't concern yourself with finding these solutions right now. Just trust the interest and emotion that has led you to them.*

*Highly creative people say their intuition tells them which ideas to explore. Many times such creative insights are not so obvious—not much more than a hunch.*

*A wonderful French adage says great ideas wear “shabby clothing.” Your unconscious often tells you to pay attention to ideas that your conscious logic may consider shabby. For now, just listen to your intuition.*

### Example

You choose the Territory “Finding hidden support.” When you turn it over, you find the jaçana and read how it has solved a problem that may be similar to yours.

The jaçana appears to run on water by stepping on submerged vegetation. Its oversized feet can momentarily alight on more than one plant at a time to distribute its weight.

## **Mutation Step Four: Hold that Thought**

### Action

1. Use your Mutation Worksheet to record any random thoughts about the animal you've chosen.
2. List everything about your animal that seems interesting and unique.
3. Use short phrases and include lots of details.

*Observation and creativity go hand in hand. Creativity is an act of manipulation. We take what exists and twist, turn, reverse, magnify, reduce... making new ideas out of old ones. The more things we observe and describe, the more ideas we have to manipulate and the greater our chances that a brilliant idea will present itself. Therefore, quantity is much more important than quality. Make sure you capture as many descriptive phrases as you can before you go any further.*

*Don't limit yourself to what is literally described in the Adaptation, but also include any random thoughts that come to you as you consider the animal. This exercise allows your intuition as well as your powers of conscious observation to work together. You never know which descriptor will be the key for the biggest breakthrough.*

*See if you can generate at least ten descriptive phrases. Then take a break!*

### Example

The jacana may be new to you, but using your imagination and some things you know about birds in general, you make a list of observations.



## Example

<b>Mutation Worksheet</b>	
<b>Underlying Issue:</b> <i>Lack of power</i> <i>Inadequate selling skills</i>	
<b>Observations:</b> <i>Big feet reduce pressure</i> <i>Birds have hollow bones</i> <i>Large span of control</i> <i>Bird runs fast over water</i> <i>Submerged vegetation essential</i> <i>Buoyancy of water counteracts weight</i> <i>Support hidden from view</i> <i>Birds have high-pitched voices</i> <i>Wary of predators</i> <i>Multicolored plumage</i> <i>Jacanas found on several continents</i> <i>Birds go higher than other animals</i> <i>Fly in formation</i> <i>Highly efficient movement</i>	<b>Ideas:</b>

## **Mutation Step Five: Take a Break!**

### Action

1. Stop!
2. Abandon your problem for at least 15 minutes.
3. Take a walk, a ride, or a nap. Anything other than working on the problem, the more different it is, the better.

*Believe it or not, this is one of the most difficult steps for some people. And yet to meet creative challenges, it is vital to trust your unconscious mind. Like a well-trained team, it works tirelessly on what it knows needs to be done.*

*Many creative people get their best ideas when they're not consciously working on the problem. Your intuitive, unconscious mind can only do its work if you let it. So let it. Remember, you can't see the moon when the sun is still high in the heavens. Let your conscious sun take a break.*

## **Mutation Step Six: Welcome Back!**

### Action

1. Go back to your Mutation Worksheet.
2. For each characteristic, find at least one idea that offers some sort of solution or has some connection with your problem or with the underlying issues you have developed.

*It's hard to find connections with all your characteristics. But going through this step, really pays off. Just remember, it's not always clear at first glance exactly where the connections are, but this process greatly increases your chances of finding the most elegant one.*

*You might consider a word-association game or any other brainstorming technique that suits you. In any case, push yourself if you have to. There's gold at the end of this step!*

### Example

Rested and with a fresh perspective, you now generate ideas inspired by your observations about the jaçana. Have fun with this part!

## Example

<b>Mutation Worksheet</b>	
<b>Underlying Issue:</b> <i>Lack of power</i> <i>Inadequate selling skills</i>	
<b>Observations:</b> <i>Big feet reduce pressure</i> <i>Birds have hollow bones</i> <i>Large span of control</i> <i>Bird runs fast over water</i> <i>Submerged vegetation essential</i> <i>Buoyancy of water counteracts weight</i> <i>Support hidden from view</i> <i>Birds have high-pitched voices</i> <i>Wary of predators</i> <i>Multicolored plumage</i> <i>Jacanas found on several continents</i> <i>Birds go higher than other animals</i> <i>Fly in formation</i> <i>Highly efficient movement</i>	<b>Ideas:</b> <i>Let others sell idea</i> <i>Show how idea might lighten load</i> <i>Sample people who talk a lot</i> <i>Pique interest quickly</i> <i>Find people with behind-the-scene power</i> <i>Use people who can exert gentle pressure</i> <i>Don't tell decision makers</i> <i>Get support of executive secretaries</i> <i>Watch out for spies</i> <i>Make samples match décor</i> <i>Enlist foreign affiliate for support</i> <i>Go to executive secretaries of CEO</i> <i>Get military client support</i> <i>Find someone who knows executive secretary</i>

## Mutation Step Seven: Make a Choice

### Action

1. Choose one idea or group of ideas that fits the following criteria:
  - It's exciting, interesting, or provocative.
  - It's specific. You get a clear mental image.
  - If you could implement this idea, it would go a long way towards helping to solve your problem.
2. Don't concern yourself with practicality. That's the next and final phase of your creative work.

*Don't let the feasibility of the idea influence your choice at this stage. We'll make the idea work in the next and final stage. Rely once again on your intuition or emotions to make these choices.*

*You'll find there's a big gap between developing creative insights and making them a reality. The ideas that finally see the light of day are those ideas that are the most exciting from the start. The idea that has the best chance for successful execution will be the idea you are most in love with from the start.*

### Example

“Get support of executive secretaries.” It sounds like fun. It should be relatively easy to do, and it feels like it might work. Why didn't you think of this before!

## Example

<b>Mutation Worksheet</b>	
<b>Underlying Issue:</b> <i>Lack of power</i> <i>Inadequate selling skills</i>	
<b>Observations:</b> <i>Big feet reduce pressure</i> <i>Birds have hollow bones</i> <i>Large span of control</i> <i>Bird runs fast over water</i> <i>Submerged vegetation essential</i> <i>Buoyancy of water counteracts weight</i> <i>Support hidden from view</i> <i>Birds have high-pitched voices</i> <i>Wary of predators</i> <i>Multicolored plumage</i> <i>Jacanas found on several continents</i> <i>Birds go higher than other animals</i> <i>Fly in formation</i> <i>Highly efficient movement</i>	<b>Ideas:</b> <i>Let others sell idea</i> <i>Show how idea might lighten load</i> <i>Sample people who talk a lot</i> <i>Pique interest quickly</i> <i>Find people with behind-the-scene power</i> <i>Use people who can exert gentle pressure</i> <i>Don't tell decision makers</i> <u><i>Get support of executive secretaries</i></u> <i>Watch out for spies</i> <i>Make samples match décor</i> <i>Enlist foreign affiliate for support</i> <i>Go to executive secretaries of CEO</i> <i>Get military client support</i> <i>Find someone who knows executive secretary</i>

## Selection Step One: Identify the Positives

### Action

1. List all the positive aspects of your new idea on your Selection Worksheet.
  - Assume your idea will work.
  - What will it accomplish?
  - What benefits will it yield?
2. Use the Survival Prompts to stimulate more ideas.

*Think positively about the idea from as many points of view as possible. Think of all the people now and in the future who will be served by it. Be as specific as possible about its potential usefulness.*

*The Survival Prompts will help improve your chances of developing an idea that will work. Perhaps they will inspire some wonderful modification that will make your idea heartier and able to survive in the current business environment. Use all the prompts for maximum benefit.*

### Example

Among the Survival Prompts, you find one that reads, “Who could help your sell this idea?” You use it and other to support your case to the secretaries you will enlist.

How might you enlist others who stand to gain from this idea?

What makes this idea unique?

Where else might this be used?

How might what you've learned be applied to other uses?

## Example

Selection Worksheet	
<b>Positives:</b> <i>Make secretary's job easier</i> <i>Boss will see her using them</i> <i>Secretaries will market for me</i> <i>We could add department logo</i> <i>Useful for storyboarding</i> <i>Good for computer illiterates</i> <i>Easier to find throw-away notes</i> <i>Save on paper clips</i> <i>Allows higher-ups to see R&amp;D guy is sensitive to administrative needs</i>	
<b>Negatives:</b>	<b>Challenges:</b>
<b>Solution:</b>	



## Selection Step Two: Identify the Negatives

### Action

1. List all the negative aspects of the idea.
2. What are the biggest obstacles?
3. What are the risks?
4. What else can go wrong?
5. Use the Extinction Prompts to stimulate more negative ideas.

*Now it's time to look at anything about the idea that may cause it to be rejected by the surrounding environment and suffer extinction rather than flourish. The Extinction Prompts will help you find as many flaws as possible.*

*Consider all the reasons and or any reactions to your idea that could cause it to fail or be rejected.*

### Example

The “sabotage” Extinction Prompt has prompted several concerns.

Who will sabotage your attempts at execution?

Who could get hurt if you are successful?

What happens if your data is wrong?

Might safety goals be compromised?

## Example

Selection Worksheet	
<b>Positives:</b> <i>Make secretary's job easier</i> <i>Boss will see her using them</i> <i>Secretaries will market for me</i> <i>We could add department logo</i> <i>Useful for storyboarding</i> <i>Good for computer illiterates</i> <i>Easier to find throw-away notes</i> <i>Save on paper clips</i> <i>Allows higher-ups to see R&amp;D guy is sensitive to administrative needs</i>	
<b>Negatives:</b> <i>Who will sabotage your attempts at execution?</i> <i>Who will get hurt if you are successful?</i>	<b>Challenges:</b>
<b>Solution:</b>	

## Selection Step Three: Turn Negatives into Positives

### Action

1. Identify at least two challenges for each Negative you've listed on your Selection Worksheet.
2. Start each Challenge with the words "How to."

*The essence of the creative attitude is the ability to look at problems as opportunities. One technique for doing so is to state Negatives as Challenges. To do this we simply restate the negative question as positive challenge.*

*For example, if one of your Negatives is the cost of implementation, some Challenges might be: How to reduce costs, How to share costs, Maybe the idea will pay for itself, Do it on a smaller scale.*

*The cynic may well observe that this is merely looking at the glass as half empty or half full. But when you see a glass as half full, it's easier to imagine how to fill it.*

### Example

For each of your Negatives, you've written two Challenges phrased as "How to" statements. Now you're headed in a problem-solving rather than a problem-finding direction.

## Example

Selection Worksheet	
<b>Positives:</b> <i>Make secretary's job easier</i> <i>Boss will see her using them</i> <i>Secretaries will market for me</i> <i>We could add department logo</i> <i>Useful for storyboarding</i> <i>Good for computer illiterates</i> <i>Easier to find throw-away notes</i> <i>Save on paper clips</i> <i>Allows higher-ups to see R&amp;D guy is sensitive to administrative needs</i>	
<b>Negatives:</b> <i>Who will sabotage your attempts at execution?</i> <i>Who will get hurt if you are successful?</i>	<b>Challenges:</b> <i>How to prevent boss from stopping my idea?</i> <i>How to make secretaries have a positive impact on boss?</i> <i>How to enlist secretaries without disturbing the boss?</i> <i>How to accomplish this without alerting rest of R&amp;D?</i>
<b>Solution:</b>	

## Selection Step Four: Close the Gap

### Action

1. Modify your idea to make it as workable as possible.
2. How can you take advantage of your idea's plusses and negate its minuses?
3. Write your results in your Selection Worksheet.

*It's now time to take the most creative and difficult step. Look at all the Challenges you've listed. How can you modify them without sacrificing the Positives that will help your idea survive?*

*You might want to take the most important and difficult Challenge first. Then tackle the others in descending order of importance.*

*There may be a way to alter your idea while saving the qualities that attracted you to it. There may be a way to save and use the Territories your idea embodies. If you meet an important Challenge that you can't resolve, use it as the starting point for examining other Territories and Animals, which probably will provide the final winning perspective.*

*Remember, there's an answer somewhere. Someone will find it. Will it be you or one of your competitors?*

### Example

You realize your greatest asset lies in putting your invention in the hands of those who will demand more when they run out.

## Example

<b>Selection Worksheet</b>	
<b>Positives:</b> <i>Make secretary's job easier</i> <i>Boss will see her using them</i> <i>Secretaries will market for me</i> <i>We could add department logo</i> <i>Useful for storyboarding</i> <i>Good for computer illiterates</i> <i>Easier to find throw-away notes</i> <i>Save on paper clips</i> <i>Allows higher-ups to see R&amp;D guy is sensitive to administrative needs</i>	
<b>Negatives:</b> <i>Who will sabotage your attempts at execution?</i> <i>Who will get hurt if you are successful?</i>	<b>Challenges:</b> <i>How to prevent boss from stopping my idea?</i> <i>How to make secretaries have a positive impact on boss?</i> <i>How to enlist secretaries without disturbing the boss?</i> <i>How to accomplish this without alerting rest of R&amp;D?</i>
<b>Solution:</b> <i>Send samples to executive secretaries in other non-competing Fortune 500 corporations.</i> <i>Promise six-month free supply when product gets to market, if they evaluate product and request more in writing.</i>	

## Worksheets

Use the Worksheets on the next three pages as you perform the Natural Selection process. Each of the three Worksheets is meant to be used for a specific part of the process.

<b>Worksheet</b>	<b>found on page</b>	<b>use for steps</b>	<b>found on pages</b>
Extinction	40	Extinction 1-3	14-19
Mutation	41	Mutation 1-7	20-30
Selection	42	Selection 1-4	31-38

Copy and distribute Worksheets as necessary.

## **Extinction Worksheet**

**Briefly describe the situation causing concern.**

**Identify what you stand to lose if the problem is not resolved.**

**List all the ways you've failed to solve the problem.**



## **Mutation Worksheet**

**Underlying Issue:**

**Observations:**

**Ideas:**

## Selection Worksheet

**Positives:**

**Negatives:**

**Challenges:**

**Solution:**

## **Survival Prompts**

Under what external conditions would this idea yield unforeseen benefits?

What mechanism makes this idea work?

What general principles are embedded in this idea?

What makes this idea unique?

Where else might this be used?

Why will it work this time, when other attempts may have failed?

How might you enlist others who stand to gain from this idea to help sell it?

How might what you've learned be applied to other uses?

List all the benefits should your idea succeed.

List all the benefits should your idea fail!

Considering everyone involved in the implementation process, how will this idea make their jobs easier?

What other business opportunities will open that have previously been limited or not available?

## **Extinction Prompts**

What other business elements might suffer from successful execution?

What changes in the environment would make this idea a disaster?

Who could get hurt if you are successful?

How might safety goals be compromised?

Who will sabotage your attempts at execution?

What are all the negative fallouts if the idea fails?

How does this idea disrupt the formal and informal norms in your business?

How might your customers be hurt?

What happens if you've underestimated the cost?

What happens if your data is wrong?

What if key manufacturing people can't or don't want to learn how to use your new idea?

How might your overall quality suffer and your company's good name be damaged?