

services are. The concepts of taxation and punishing criminals, for example, may be very old, but they were once new. Numerous other concepts are relatively recent. It is hard to imagine how mathematics could even be used without the concept of zero. Yet that concept, in the sense of a number, was invented in India around A.D. 500.²⁵ Similarly, the concept of the corporation originated in the sixteenth century, and our ideas of progress and worldly success in the seventeenth. The concept of the zip code is very recent.

The concept of childhood we are familiar with—as a stage of innocence with its own special characteristics—dates back only a few centuries. Before then, children were treated as little adults. The historian J. H. Plumb writes: “Certainly there was no separate world of childhood [in earlier times]. Children shared the same games with adults, the same toys, the same fairy stories. They lived their lives together, never apart. The coarse village festivals depicted by Bruegel, showing men and women besotted with drink, groping for each other with unbridled lust, have children eating and drinking with the adults.”²⁶

STAGES IN THE CREATIVE PROCESS

Being creative means more than *having* certain traits. It means *behaving creatively*, addressing the challenges we encounter with imagination and originality. In short, it means demonstrating skill in applying the creative process. Although authorities disagree over the number of stages in this process—some say three, others say four, five, or seven—the disagreement is not over substantive matters. It is merely over whether to combine activities under one heading or several. There is no real disagreement about the basic activities involved.²⁷

For ease in remembering and convenience of application, we will view the creative process as having four stages: searching for challenges, expressing the particular problem or issue, investigating it, and producing a range of ideas. Each of these stages will be the subject of a separate chapter, but a brief overview of the process will enable you to begin using it right away.

The First Stage: Searching for Challenges

The essence of creativity is meeting challenges in an imaginative, original, and effective way. Often, challenges need not be sought out; they come to you in the form of obvious problems and issues. For example, if your roommate comes home night after night at 2 or 3 A.M., crashes into the room, and begins talking to you when you are trying to sleep, you needn't be very perceptive to know you have a problem. Or if you find yourself in the middle of a raging argument over whether abortion is murder, no one will have to tell you that you are addressing an issue.

However, not all challenges are so obvious. Sometimes, the problems and issues are so small or subtle that very few people notice them; at other times, there are no problems and issues at all, only *opportunities to improve existing conditions*. Such challenges arouse no strong emotion in you, so you will not find them by sitting and waiting—you must look for them.

The first stage of the creative process is the habit of searching for challenges, not at one specific time, but constantly. Its importance is reflected in the fact that you can be creative only in response to challenges that you perceive.

The Second Stage: Expressing the Problem or Issue

The objective in this stage is to find the best expression of the problem or issue, the one that will yield the most helpful ideas.* “A problem properly stated,” noted Henry Hazlitt,²⁸ “is partly solved.” Because different expressions open different avenues of thought, it is best to consider as many expressions as possible. One of the most common mistakes made in addressing problems and issues is to see them from one perspective only and thus to close off many fruitful avenues of thought.

Consider the prisoner deciding how to escape from prison. His first formulation of the problem was probably something such as “How can I get a gun and shoot my way out of here?” or “How can I trick the guards into opening my cell so I can overpower them?” If he had settled for that formulation, he would still be there (where he belonged). His ingenious escape plan could have been devised only as a response to the question “How can I cut through those bars without a hacksaw?”

Often, after expressing the problem or issue in a number of ways, you will be unable to decide which expression is best. When that happens, postpone deciding until your work in later stages of the process enables you to decide.

The Third Stage: Investigating the Problem or Issue

The objective of this stage is to obtain the information necessary to deal effectively with the problem or issue. In some cases, this will mean merely searching your past experience and observation for appropriate material and bringing it to bear on the current problem. In others, it will mean obtaining new information through fresh experience and observation, interviews with knowledgeable people, or your own research. (In the case of the prisoner, it meant closely observing all the accessible places and items in the prison.)

The Fourth Stage: Producing Ideas

The objective in this stage is to generate enough ideas to decide what action to take or what belief to embrace. Two obstacles are common in this stage. The first is the often unconscious tendency to limit your ideas to common, familiar, habitual responses and to block out uncommon, unfamiliar ones. Fight that tendency by keeping in mind that however alien and inappropriate the latter kinds of responses may seem, it is precisely in those responses that creativity is to be found.

The second obstacle is the temptation to stop producing ideas too soon. As we will see in Chapter 9, research has documented that the longer you

*In the case where there is no real problem or issue but only an opportunity to improve an existing condition, you would treat the situation *as if it were* problematic, saying, for example, “How can I make this process work even more efficiently?”

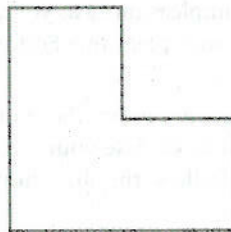
continue producing ideas, the greater are your chances of producing worthwhile ideas. Or as one writer puts it, "The more you fish, the more likely you are to get a strike."

There is one final matter to be clarified before you will be ready to begin practicing the creative process: How will you know when you get a creative idea? By what characteristics will you be able to distinguish it from other ideas? A creative idea is an idea that is both imaginative and effective. That second quality is as important as the first. It's not enough for an idea to be unusual. If it were, then the weirdest, most bizarre ideas would be the most creative. No, to be creative an idea must work, must solve the problem, or must illuminate the issue it responds to. A creative idea must not be just uncommon—it must be *uncommonly good*. This is the standard you should apply when looking over the ideas you produced.

When you have produced a generous number of ideas, decide which seems to be the best. Sometimes that will be a single idea; other times it will be a combination of two or more ideas. At this point your decision should be tentative. Otherwise, you will be tempted to forgo the valuable critical thinking process by which ideas are *evaluated*.

WARM-UP EXERCISES

- 5.1. Four friends have a large garden in the following shape. They want to divide it into four little gardens the same size and shape, but they don't know quite how to do this. Show them.



- 5.2. How many uses can you think of for old socks, stockings, or panty hose? Be sure to guard against setting unconscious restrictions on your thinking and to resist the temptation to settle for too few ideas.
- 5.3. Every change of season brings a new clothing fashion for men, women, and children. Invent as many new fashions as you can. (If you wish, you may include out-of-date fashions in your list, as long as they have not been popular in recent years.) Observe the cautions mentioned in Exercise 5.2.



APPLICATIONS

- 5.1. For each of the following problems, apply stages two through four of the creative process. Record all your thoughts as they occur, and be prepared to submit them to your instructor. When you have finished with the last stage, state which of your solutions is best and briefly explain why.
- Barney has early classes five days a week. Yet he has attended few of them because he just can't seem to wake up in the morning. If he doesn't find a solution to his problem soon, he'll surely flunk out of college.
 - The campus library has been losing articles from magazines and even pages from expensive books. Irresponsible students just tear them out, hide them in their book bags, and walk out of the library. But yesterday a student was caught leaving with ripped-out pages. Some of the library staff favor making an example of her by expelling her from school and pressing criminal charges against her. Others favor merely charging her for the mutilated books.
 - Virtually every building with a public bathroom has a graffiti problem. Even when the messages are not offensive, they create maintenance problems.
 - Shoplifting cuts deeply into store owners' profits. Owners and managers would welcome a solution to this problem.
 - Many elderly and handicapped people live lonely lives. No longer active in careers, they are often forgotten by former associates and neglected by family and friends. Many lack transportation to community affairs.
- 5.2. Think of the most unpleasant task you ever had to do. Use your creativity to make it more pleasant. Follow the directions given at the beginning of Application 5.1.
- 5.3. Think of your biggest pet peeve about other people, the thing they do that aggravates you most. Use your creativity to reduce or eliminate that aggravation. Follow the directions given at the beginning of Application 5.1.
- 5.4. Some people seem to believe that criticizing a black president makes one a racist? Is this a reasonable belief? Does the race of the one doing the criticizing make a difference? Why or why not? Construct a definition of *racism* that eliminates the confusion about such matters.
- 5.5. The idea of "redistributing wealth" has a lot of supporters today. In this country it has been a stated goal of the Obama presidency. The basic idea is to have the government overcome financial inequality