



Creative Problem Solving Technique

Part 2. Welcoming New Ideas



Looking For Merit In Crude Ideas

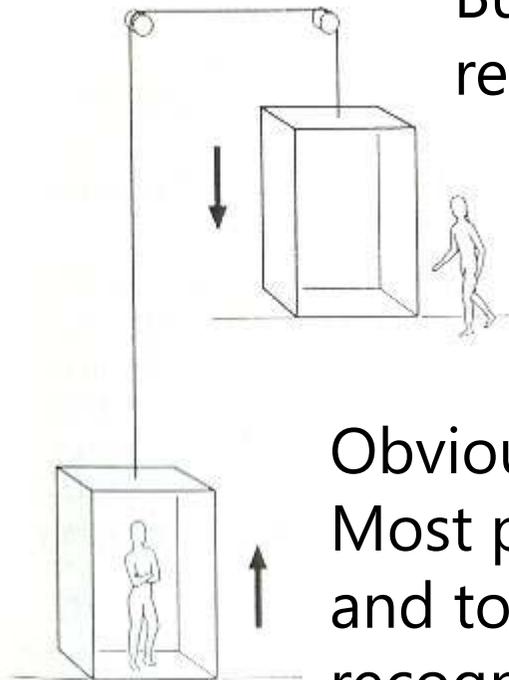
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Looking For Merit In Crude Ideas

Many people don't recognize useful creative ideas when they pop into their minds because the ideas arrive disguised as crude, foolish, and unworkable ideas.

But creative person sees through the disguise, refines the idea, and creates a useful solution.



What would you do with the following idea if it popped into your head?

Imagine two elevators that are side by side.

Obviously this idea is impractical for many reasons. Most people would regard the idea as useless and toss it out. But a creative person would recognize that this idea does have value. It would save energy!



Looking For Merit In Crude Ideas

This is “secret” to creating useful solutions.

When a creative idea pops into your head, **look for its merit.**

Only by recognizing merit in initially crude ideas and refining those ideas have you create useful solutions.

“look for merit in **any** idea.

Any idea that pops into the mind has some merit.”

Once you see an idea’s advantages (its merit),
modify the idea in a way that retains its advantages
and removes its disadvantages



Looking For Merit In Crude Ideas

- Let's replace the person going down with a bag of sand. This arrangement still saves energy but doesn't require the person going up to wait for some one going down.
- The bag of sand might not be heavy enough to lift a large person, so let's use a variable amount of sand instead of sandbags of a fixed size.
- Pouring sand creates dust in the air, so we can use water instead.
- Automating the loading of water eliminates the need for a person to load the water.
- Using a heavy weight (as is usually done) and a container to hold the water eliminates the need to use a second elevator as a counter balance.
- Extra water can be used to overcome friction and to get the elevator started.
- We can use the weight of people going down to lift some of the water back up for later use.



Looking For Merit In Crude Ideas

At this point we've refined the crude elevator idea into a somewhat practical idea.

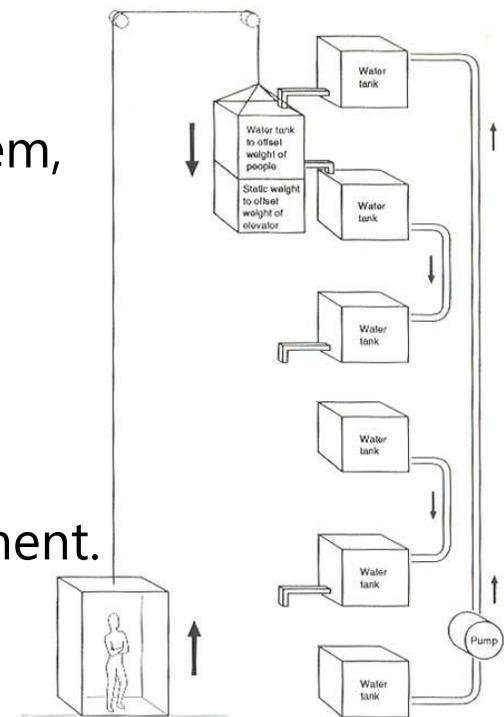
This example illustrates that what begins as a foolish notion can evolve, in little steps, into a practical idea. This is how creative ideas emerge:

Not ready to use, but rather ready to refine.

This process of refinement can happen so quickly that the initial idea is quickly forgotten and it can seem, Even to the person who created the idea, that the idea arrived in a practical form.

Or, the refinement can occur so slowly that it's easy to follow its evolution.

Following next page is good example of slow refinement. Let's see.



Looking For Merit In Crude Ideas



The bicycle is began as a seat on two wheels. The rider's feet pushed to make it go and dragged to make it stop.



Later, pedals were added to the front wheel was enlarged so that a comfortable rate of pedaling caused the bicycle to go at a reasonable speed.



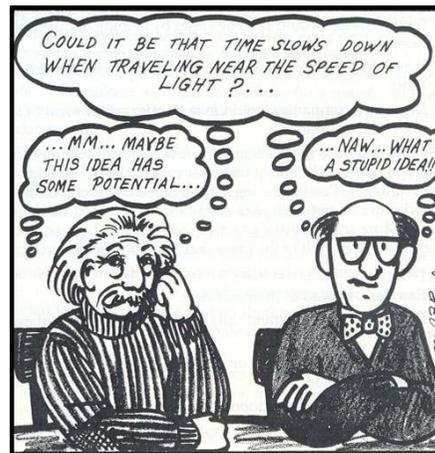
Finally, the pedals were connected to the rear wheel with a chain, the front wheel was returned to a practical size, and a brake was added. This is basically the way a one-speed bicycle remains today. By contrast, early bicycles seem crude and almost useless.

Looking For Merit In Crude Ideas

Seeing merit in new ideas is the most important skill of creative problem solving. Because, without it, you'll toss out creative ideas when they first arrive.

“Almost all really new ideas have a certain aspect of foolishness when they are first produced.”

- Alfred Whitehead, philosopher and mathematician



Looking For Fresh Perspectives

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Looking For Fresh Perspectives

The turning point in solving a problem is typically when a useful insight is reached through an effort to see the situation from a fresh perspective.

Within the Federal Express overnight mail service company, managers were discouraged by the frequent delays in transferring mail between the airplane that met at night at the central exchange location in Memphis, Tennessee. Managers learned that the employees intentionally stretched out the job to earn extra overtime pay. In other words, management had created a pay system that **rewarded slowness!** Once this perspective became clear, a solution was easy to create. The workers were guaranteed pay for a specific number of hours but could leave early if they finished early.



Looking For Fresh Perspectives

When you find yourself thinking “So that’s what’s been going on!” or “Oh, that’s the way it works!”, you’ve succeeded in seeing your situation from a fresh perspective. Frequently, such an insight automatically reveals how to solve the problem.

A fresh perspective is useful in solving any kind of problem. But, the needed fresh perspective can be so hidden that you might never discover it.

It’s necessary to one fresh perspective until a practical solution emerges. There are other ways to say **looking for fresh perspectives**. To say **understanding clearly** and **discovering insights** amount to the same thing. What you prefer to call it up to you. But whatever you call it, be sure to do it.



Looking For Fresh Perspectives

A wise person once said:

“No problem can be solved from the same perspective that created it.”

Problems do have solutions, but the solutions aren't always in plain view. To find them, look beneath the surface to reveal a fresh perspective that, almost by itself, makes a solution obvious.

For especially challenging problems, looking for just one fresh perspective might not be enough.

Keep looking until you find yourself thinking,
“Ah! Now it finally makes sense!”



Judging Perspectives According To **Usefulness**

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Judging Perspectives According To Usefulness

Instead of judging perspectives according to whether they're **right** or **wrong**, judge them according to whether they reveal useful solutions.

Often, corporate managers find it necessary to look outside their company to find someone qualified for a key leadership position. On the surface, this situation appears to be due to a lack of qualified candidates within the company.

But looking beneath the surface reveals a different perspective.

Employees who obediently do what their boss tells them to do are usually prompted more readily than employees who point out weaknesses in their boss's flawed requests.

As a result, middle level managers tend to be followers rather than leaders.



Judging Perspectives According To Usefulness

This fresh perspective reveals the following ideas for dealing with a shortage of candidates for a key leadership position:

- Teach leadership skills to managers who lack, yet need, these skills.
- Train managers to distinguish between complainers and people with leadership potential, both of whom readily point out flaws.
- Find out why competent employees quit.
- Encourage the promotion of competent employees who might otherwise be ignored for promotion because of their position.
They might not yet have been promoted to the level they deserve.

Just because a perspective reveals practical solutions doesn't mean that the perspective itself is **right**. Ultimately, what matters is **whether you come up with a solution to a problem**. How you arrive at the solution doesn't matter (just as it doesn't matter that an initial idea is silly or foolish.)



Judging Perspectives According To Usefulness

To see this point more clearly, consider the following analogy.
Suppose that someone showed the **same object** to three different people and asked them to describe its shape.
Suppose their responses were:

- First viewer: "It's square."
- Second viewer: "It's circular."
- Third viewer: "It's triangular."



What would you conclude?

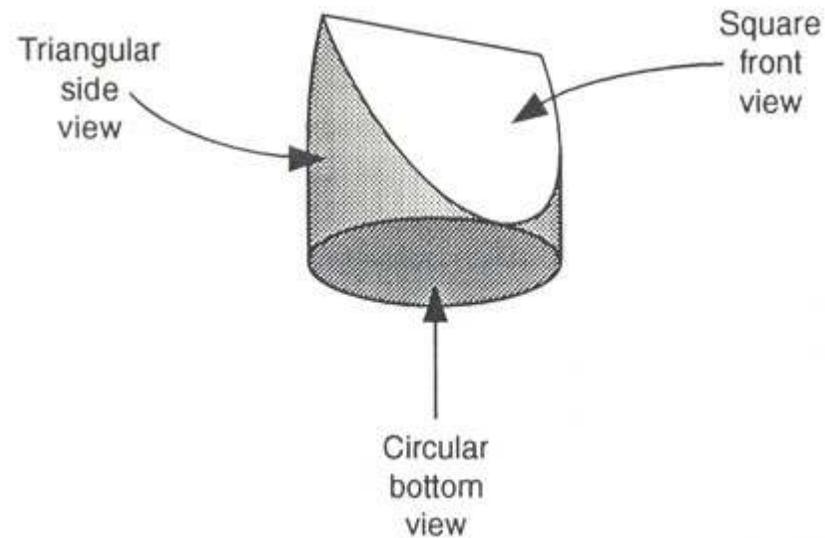
You'd probably figure that at least one of them was lying or need glasses.

Yet such an object exists!

Depending on which angle it's viewed from, it has the profile of a square, circle, or triangle.

To see what it looks like, see the next page.





Now that you know what this shape looks like, ask yourself.

“Is its shape circular, square, or triangular?”

The answer is that each of the descriptions is both true and not true.

Each description is simply **one of several possible perspectives**.

Just as there is not one **right** profile that characterizes this tri-shaped object, there is not one **right** way to view middle-level managers in a corporation.

They are neither, and yet both, leaders and followers.



Judging Perspectives According To Usefulness

Instead of judging a perspective as **right** or **wrong**,
focus on the perspective's **usefulness**.

Does the perspective reveal a solution or doesn't it?

That's what counts.



Appreciating Humor

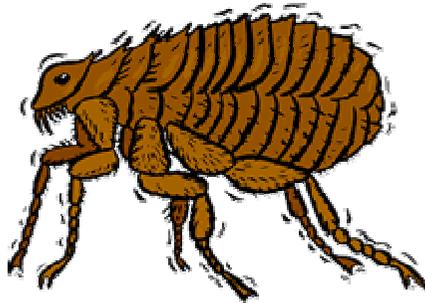
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Appreciating Humor

It's useful to **have a sense of humor** as you search for creative solutions.

Imagine that fleas have invaded your carpet.



One idea you might think of for getting rid of the **fleas** is to borrow a **neighbor's cat** and walk it across your carpet.

Without a sense of **humor**, you would be likely to ignore this idea without realizing the fresh perspective it suggests:

There might be something else (that's not alive) that might attract the fleas out of your carpet.



Appreciating Humor

Every idea, even a humorous or silly one, has the potential of leading to a practical idea.

Of course, not every idea you think of should be implemented, especially not unethical ones like hurting your neighbor's cat.

There's another reason to appreciate humor.

Insights, which are important in creative problem solving, involve a shift in perspective that's similar to the shift in perspective that occurs in humor. The following examples of an insight and a joke demonstrate this similarity.



Appreciating Humor

A timid, small-town woman traveled to a conference held in a large city with a high crime rate.

Returning from the conference late at night, she entered the hotel elevator to return to her room.

Before the elevator doors closed a large man with a fierce looking dog entered the elevator and stood behind her.

She was filled with fear and was afraid to turn around.

Moments after the elevator started to move, the man said, "Lie down!"

Quickly she obeyed.

Lying on the elevator floor, she heard him chuckle and say, "Not you. I was talking to my dog!"



Notice that the moment of humor is a dramatic and unexpected shift in perspective. Specially, the meaning of the words "Lie down!" suddenly and unexpectedly shift with the last word of the joke.



Appreciating Humor

The joke illustrate that humor that occurs at important moments of insight, namely a dramatic and **unexpected shift in perspective**. If this logic seems too abstract, then appreciate the fact that both humor and creative problem solving have same final goal: To make life more enjoyable!

Humorous ideas are common in creative thinking. **Enjoy them!** And in addition to being entertained, appreciate that they involve the same kind of **shift in perspective** that occurs at **enlightening moments of insight**.



Initially **Keeping** Your **Ideas Confidential**

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Initially Keeping Your Ideas Confidential

In your early moments of creative excitement, you might be tempted to tell someone else about a promising new idea.

But it's worth remembering that many people look for flaws without looking for merit.

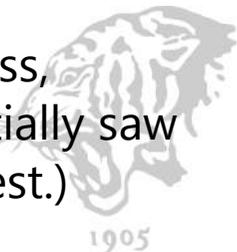
To appreciate that something new is typically criticized, regardless of its merit, consider these examples:

- Steve Wozniak's suggestion of making small, relatively inexpensive computers was rejected by his superiors at Hewlett-Packard, a large electronic manufacturing company. To pursue his idea, he quit his job and teamed up with Steve Jobs to start Apple Computer, Inc.



- Along with many other people in the 1500's, one German preacher criticized the innovation of eating with forks, saying, "God would not have given us fingers if He wished us to use such a diabolical instrument."

- The Wright Brothers' airplane was commonly criticized as being a useless, expensive, dangerous toy. Even the leaders of the United States Army initially saw no value in it. (They reconsidered when the French Army expressed interest.)



1905

Initially Keeping Your Ideas Confidential

These examples illustrate that unfavorable criticism doesn't mean that an idea is foolish or unfounded. It simply means that the **critic sees little or no merit in the idea.**

When a creative idea first occurs to you, it's usually too fragile to withstand criticism, even if the criticism is unfounded.

Therefore, consider not sharing a new idea with other people until you've evaluated the idea more carefully.

If you plan to claim credit for an idea by revealing it at a time of your choosing, be especially true for inventions because the first person to patent an invention legally owns it.

Instead of censoring your thoughts, **keep your ideas private.**

Other people need never know what silly ideas prompt your creative solutions. Only your **final solutions need to be shared.**



Writing Down New Ideas

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Writing Down New Ideas



After you've recognized the merit in a creative idea, write down the ideas so you won't forget it.

Write down any idea that has potential for leading to a new solution. Creating a useful new idea in your mind accomplishes nothing if you can't later recall your creative insight.

To avoid forgetting creative ideas, write them down!

