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Thin Kin Gout, Oft He Box

PUGILIST FEATHERWEIGHT RELATIVE WITH ACHING JOINTS? No, it's "thinking out of the box" conceived of, well, *out of the box*. This essay offers a new perspective on idea generation and problem solving.[1]

It's one thing to tell people, "Be creative." It's quite another to give them a framework for coming up with new ideas—our goal is to do just that. The trick, if you like, is to give people guidance on where to look. It is hard enough to find a new idea, but much harder still if you don't know where to look.

We believe that most "original" ideas aren't completely original, but, instead, can be traced back to one of five sources: symmetry, automation, incentives, standardization, and translation. We describe the first two in some detail and provide just a quick overview of the others.

Symmetry

Looking for symmetry or, even better, for asymmetry, often leads to a new perspective. Why are things are done one way rather than another?

1. We thank John Lapides, John MacBain, Sheila Leary, and Murat Armbruster for sharing their ideas with us.

A few examples will illustrate what we mean.

A fun place to begin is with videotape rentals. The current convention is to rewind the tape at the end of the rental, but, as we all know, not everyone does this. What about reversing the custom—having people rewind the tape at the beginning of the rental? While both rules require people to rewind the tape once, renters have a far better incentive to rewind at the beginning than they do at the end.

A more serious example builds on one of the great innovations of the 1970s: the ATM machine. Banks cooperate with each other through the ATM network to allow their customers to withdraw money from each other's banks. The result is a great cost savings for banks, as they need not duplicate all of each other's branches. It's a great idea, but what's missing? Put on the symmetry hat. What's missing is the deposit side to the ATM idea. Why can't a customer make a *deposit* to any bank from any bank?[2]

Priceline made a big splash by turning the tables on pricing—it has the customer make an offer to the airline, rather than having the airline post a price to the customer. Why should it be just one way or the other? What about letting both sides state prices and see if they overlap?[3]

Insurance companies typically provide a list of what is covered. Turning this around, how about a listed exception policy—everything is covered but the listed exceptions? Then, there is no need to worry about the fine print.

To be symmetric about symmetry, we should recognize that asymmetries are as interesting as symmetries. Thus, in some cases, the trick is to break the symmetry. The one-way tollbooth (which requires commuters to pay tolls only in one direction) is an example that has improved many of our lives.

Automation

You can try to come up with great ideas, or you can see what people are already doing and help them do it better. To succeed at this, you needn't

2. While this is not generally possible in the U.S., it is in the U.K. and Australia.

3. See splitthedifference.com.

be an expert in electronics or programming, but you must become an expert in identifying problems. Find the problem by watching what people do (seeing not only their frustrations, but also how they respond to them). Now you just need to help them do it better.

Telecommunications seems to offer many opportunities in this area. We offer three quick examples. Have you ever phoned someone hoping to leave a message rather than speak to them? You intentionally call them at lunchtime or late at night, but they answer the phone and you have to speak to them. Why not make a call directly into the person's voice mail? Just dial the number with an * at the end.

Tired of choosing which cell phone calling plan is best for you? Why make the choice? At the end of the year, let the company look back at your calling pattern and pick the plan that would have been best for you.

Another dilemma: Which long-distance plan should you use? Instead of listening to incomprehensible solicitations, comparing rates, and deciding, why not let the provider automate this for you? Businesses take advantage of this today with something called "least-cost routing." Essentially, each phone call is put out to bid, and whoever will carry the call for the lowest price gets the business. This system gives carriers an added incentive to lower prices, as they know customers will truly switch for lower prices. Individuals could sign up for the service, and never worry about getting the best price or listening to the ads.

Another area just begging for new solutions is financial services. The mortgage business, for example, offers one of life's great inefficiencies: refinancing. People waste an enormous amount of time, legal fees, title insurance, points, and more. How about the mortgage that automatically refinances downward? There are adjustable-rate mortgages that go down when interest rates fall, but there are no fixed-rate mortgages that go down when rates fall. (Ah, asymmetry, again!) This automatic refinancing would benefit the customer and could be paid for with a higher rate (perhaps a quarter point above the traditional fixed-rate loan). The savings from legal fees and title insurance would make a bigger pie that both banks and customers could share.

Some of these automations have already occurred and have created loyalty for the providers. Many brokerage houses will now calculate

the cost basis for a stock that is sold. Going back and figuring out splits and mergers was one of life's most unrewarding activities. Now that the brokerage house will do this for you, there is a strong incentive *not* to move your account and lose this information.

In some contexts, the role of automation is to ensure that people do what they are supposed to do. Thus, Andrew Tobias has been on a crusade to mandate pay-at-the-pump auto insurance (just the liability part). This would be effective in preventing uninsured drivers—at least until electric cars become more prevalent.

Here's an automation idea that gives people pause—automate speeding tickets. If you are traveling on a toll road, and you cover the sixty miles from exit 4 to exit 12 in under forty-eight minutes, then you must have traveled at seventy-five miles an hour. Automated speeding tickets would save state troopers from setting up speed traps, and it would save customers from buying radar detectors. It might also improve business at highway restaurants. It might even force the government to change a law that most people are unwilling to obey.

Incentives, Standardization, and Translation

So far, we've introduced two of the idea generators. Here, more briefly, are the three others. We believe that once people start thinking this way, you'll hear a remarkable collection of innovative ideas. Below are some of the ideas we've heard.

Incentives

Aligning incentives is about finding ways to motivate people to take the most efficient course of action. Thus, teenagers might drive the family car more safely, if they knew that their maximum speed would be monitored.[4] As for airlines, measuring and posting on-time arrival rates inspired them to focus on performance. Ben Polak suggests going one step further: have the arrival time be measured by

4. This could be done in many ways. One way is through a resettable gauge on the dashboard. This would solve privacy issues. The teenager would be grounded if the number exceeded the agreed limit or was reset. It could also be done through global positioning—and some car rental companies have started to do this with fines given for drivers who speed.

when the luggage arrives at the carousel, not by when the plane arrives at the gate.

Standardization

To find ideas here, just look at what isn't standardized. Hot dogs come in packages of six, while buns come in packages of eight! Anya Schiffrin suggests a universal airmail stamp, one that could be used in any country. John MacBain wants a numbering system on clothes that would tell you what goes with what. Does our calendar really make any sense? Why not have thirteen four-week months plus a New Year's Day? That way, each month would begin on a Monday. The only problem is what to name that thirteenth month. How about Berube after this idea's proponent?

Translation

Our final approach, translation, is to take something that works in one context and bring it to another. The polycarbonate wheels that transformed roller skates into roller blades then went on to transform skateboards and even scooters. Just as frequent air travelers are given an expedited check-in line at airports, Gary Hamel suggests that frequent grocery shoppers be given expedited checkout. The translation framework can be thought of as existing solutions in search of new problems. (Symmetry, again. One can look for solutions to old problems or new problems for old solutions.)

Putting It to the Test

Here, then, is a quick test of our approach. We identify some problems below and ask you to use the tools above to find some solutions.

- How to improve telephone holding?
- How to make washing machines more energy efficient?
- How to make a better currency?
- How to make a better toilet?
- How to make airplane travel more pleasant?

Here are a few ideas—countless others are possible. Note that almost

every one of these ideas could be a business opportunity for someone.

Using the symmetry hat: Waiting on hold makes no sense. It is costly to the caller and even to the receiver, especially for 800 numbers. Why wait at all? Although you called them, they can call you back. Either using caller ID or having you type your number in, the party you called can call you back. *This can also be seen using the translation hat:* automatic call back is currently available when the phone is busy, but not when it is answered and you are put on hold.

Using the automation hat: Put timers on washing machines, so that it is easier for them to be run at night when energy costs are lower. Here's another example: Why can't money pay interest or be inflation adjusted? Just as the Euro is currently a common currency standard without any actual bills, imagine a traveler's check whose conversion into dollars or the local currency was based on when you bought it. If you had bought $100 in 1990, you would be entitled to convert it to $110 today. This would be even easier with electronic money. Cash is just an inefficient way to transfer money from my money market account to yours.

Using the incentive hat: Toilets could have two flushing options to reflect how much water is needed for the job—this exists in Europe.

Using the translation hat: The opportunities to make air travel more pleasant are too numerous to list. Take innovations from cars that could apply to planes. No, it's not antilock brakes or airbags. The big step forward for cars is cup holders. Why aren't there cup holders at airline seats? While safety issues might prevent something coming out of the armrest, there's no reason why there can't be a cutout in the tray table.[5]

Shaking Up the Status Quo

More than half the battle is to identify the problem. The difficulty is that we all learn to adjust our behavior to compensate for life's problems. The compensating behavior is so natural that we accept the status quo, and stop seeing the problems that need solutions. Once the problem is recognized, finding a solution isn't that difficult. Try doing things the other way around, simplify and automate what people are

5. Air France is the one airline we know that employs cupholders. They are flip-down devices connected to the back of the tray table.

already doing, ensure that incentives are right, look for standards, or steal a solution that has worked in another context.

Share the problem with others and see what solutions they have. Share your ideas with us. We welcome your suggestions, both problems and solutions you've found. E-mail us at barry.nalebuff@yale.edu.

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Together, Barry Nalebuff and Ian Ayres are writing a new book, *Why Not?*