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Superheroes and Anti-Theft Devices in Southern China: What the Psychology of Barred Windows Can Teach Us about China and America's Education Systems

中国南方的超级英雄与防盗系统: 隔离窗的心理学对于中美教育体系的启示

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FEAR, SPIDERMAN, AND SHIPAI DONG LU

The Chinese place a high importance on education. So high, in fact, that Chinese people often ask me what my experience teaching, doing psychology research, and studying in China has taught me about the educational differences between the US and China. This is a complex question, so I like to start by talking about something simple: walking down the street.

Across the street from the high school in Guangzhou where I teach is Shipai Dong Lu, a crowded street of electric signs and fragrant restaurants. I often walk down Shipai Dong Lu in the evenings with thoughts of the classes I taught that day flying through my head. As I'm walking down the crowded street I invariably notice the metal bars across all the apartment windows dozens of floors up from the ground, and I wonder: What are these people afraid of?

There's no possible way a thief would climb so high to break into the 20th floor of a nondescript apartment (especially when there are many more apartments much closer to the ground). Yet when I mentioned this to a Chinese friend of mine, he replied reflexively, "You don't think someone could climb up there!?" As soon as the words left his mouth and incredulity had spread across my brow, his judgment got the better of him, but his initial reaction was telling.

Now as I walk by, images flash through my mind of an evil Spiderman using his superpowers to jump up to 20^{th} floor, only to be frustrated because there are metal bars covering the windows. But are the people on the 20^{th} floor really afraid of Spiderman attacking them in the middle of the night? Of course not. Instead, I think the fears of the residents on the 20^{th} floor can be explained with research from Columbia University psychologist, E. Tory Higgins.

PERSONALITY THEORY AND METAL BARS OVER THE WINDOWS

During Higgins' research in the late 1980's on how people pursue goals, he came out with a theory about personalities centered on an idea he called "regulatory focus." Higgins says when people pursue goals there are two types of strategies: prevention-focused and promotion-focused.

Those who are prevention-focused think of their goals using vigilance and care to prevent mistakes and meet a minimum standard. The people living on the 20th floor on Shipai Dong Lu, I believe, are prime examples of prevention focus. Promotion-focused people approach their goals with an eagerness to advance toward larger goals and a willingness to make mistakes.

But isn't succeeding pretty much the same as not failing? It's not, and to understand the difference between these "preventioners" and "promotioners" it helps to use an example from signal detection theory.

In the classic experiment, a person wears headphones and must tell the experimenter whether or not there was a sound through the headphones at predetermined moments. Although they're facing the same task, promotioners and preventioners chase different goals.

A promotioner will more often report correct detections, saying that they heard the tone when the tone was actually played. But they will also report more false hits, saying that they heard the tone when the really was no tone.

By contrast, a preventioner will more often report correct rejections, saying that they didn't hear the tone when there was no tone. But they will also report more misses, saying that they didn't hear the tone when there actually was a tone.

The promotioners are eager to act and speak up for a positive answer, whereas the preventioners are looking to avoid acting when it could be the wrong answer. Promotioners are eager to see their actions cause success and preventioners are worried about when action could cause failure.

Whether or not someone is a preventioner or promotioner is so important, I think, that it can help explain small things like signal-detection experiments and the bars covering the windows of those 20th-floor apartments, as well as large things like the differences between the US and Chinese education systems.

US: PROMOTIONERS, CHINA: PREVENTIONERS

As Higgins demonstrated his theory in more and more experiments, his theory started to become bigger than just individuals' personalities. First, Higgins repeated his experiments with groups and found out that he could influence entire groups of people to behave as either promotioners or preventioners.

Next, psychologists started to use Higgins' idea with entire *cultures*, and soon there were experiments showing that, in general, Americans tend to be promtioners, whereas Chinese (and other East Asians) tend to be preventioners.

Psychologists argued that interdependent societies like those in East Asia tend to emphasize prevention and the lowering of the individual for the group goal, asking individuals to place aside their private aspirations. Independent societies like those of America and Western Europe, however, tend to emphasize promotion and the raising of the individual (and his or her aspirations) as the most important.

This, I think, is why the people living on the 20th floor have bars over their windows. They are concerned most about safety and preventing crime from happening to them. They're not alone in China. Two of the first characters I learned after coming to China were *an* and *quan*, which put together mean safety. Almost everywhere you go I see reminders to *zhuyi anquan*, pay attention to safety—a phrase that even sounds a little awkward in English.

Similarly, Western writers in China often remark on the importance of avoiding *luan* (chaos or disorder) in Chinese society. The French Sinologist Boye Lafayette De Mente writes that, "the main social, economic and political principle of China" has been "to prevent *luan* or *disorder*."

If people in China really are so concerned about avoiding *luan*, then perhaps this I seem to run into so many different Chinese words (e.g., *danxin*, *youxin*, *fachou*, *youlv*) that are all translated as 'worry.' And perhaps the reason so many Western writers find *luan* so interesting is because their own societies don't have the same emphasis on *luan* and don't see the world in the same way.

In yet another way, American society reinforces the idea that the world is a safe place and that perfection can be theirs when it encourages its children in love to find the best person for

them. A Chinese friend of mine, on the other hand, recently told me that her mother warned her not to expect perfection, saying: "Do you want love or bread?"

Perhaps this is why Hollywood movies almost always have a happy ending, with the world saved, the bad guys punished, and the two right characters in love together at the end. We Americans are just convincing ourselves that usually, in the end, things turn out well. Of the Chinese movies I've seen, however, a large number end with the good guys crushed and the fated lovers slated for a future suffering apart. Americans are telling themselves that it pays to be a promotioner and the Chinese are saying that sometimes it's better to hedge bets and be a preventioner.

IS THE WORLD A DANGEROUS PLACE?

I think that those people who live in the 20th-floor apartments on Shipai Dong Lu are classic preventioners. To understand why I think they're preventioners, it's important to understand these people's philosophy.

An important part of Higgins' theory is that regulatory focus is so important that it changes "which information people judge to be most important about their past experiences when considering future action." In other words, a preventioner and promotioner can think about the same thing and reach two entirely different conclusions simply because one is a preventioner and one is a promotioner.

So, promotioners and preventioners see the world differently. You'd have to see the world differently if those bars covering the windows are to make any sense. Promotioners, who aspire to lofty, perhaps unrealistic long-term goals look at the world as a safe place where success is likely and failure is just a temporary setback. This causes promotioners to ignore dangers and be irrationally risky sometimes.

Preventioners, on the other hand, see the world as an inherently dangerous and unstable place where failure is common and success is rare. This causes preventioners to concentrate on dangers and be a bit irrationally concerned with safety sometimes, just like the people who live on the 20^{th} floor and have metal bars over their windows protecting against Spiderman. To them, including my friend who defended the 20th-floor bars, there's a decent possibility that someone would climb up to the 20th floor to rob a nondescript apartment.

Yet with such simple world views, the potential for contradictions is enormous. As an American, I generally assume my world is safe, which would explain why when there were two separate murders across the street from my dormitory in Michigan, I still felt it was safe to walk alone at night. This is also why Americans who live in a country with a high rate of violent murder and gun ownership think that where they live is safe, while my Chinese friends who live in a country with no guns and much less violent crime than the US are afraid to walk in the street at night.

PREVENTION, PROMOTION, AND EDUCATION

So after returning from a walk down Shipai Dong Lu, I go to English corner where my students tell me what they want to study in college, and the connection between prevention, promotion, and education becomes all the more clear.

In China, for various reasons, education is more pragmatic. My students, out of worries (of their own and of their parents) that the population is too large and that even college graduates can't find jobs, most often choose majors that are very useful. Even at the University of Michigan, many of my Chinese classmates had majors in business, engineering, medicine, and the hard sciences—all majors that have a good chance of leading to a secure job.

Furthermore, my Chinese students are quick to decide what they want to study, judging from the fact that many of my high school students already know what they want to study. In the middle of their high school years, students in China are already being tracked to fit into groups of study so they can take the appropriate version of the Gaokao, the standardized high school entrance exam, and then apply to colleges according to their track.

In America, by contrast, a large part of the education system follows the ideals of a liberal arts education, despite much recent criticism that it's departing from the liberal arts. The goal of a liberal arts education is to give students general knowledge of many subjects and prepare intellectual capacities, rather than train students with professional or job-related skills. To do this, a typical liberal arts curriculum includes mathematics, literature, philosophy, history, languages, and science.

More importantly, a liberal arts education is supposed to make someone a "better," more well-rounded person who is encouraged to think critically about his or her life and place in the world. In other words, skills for an enriching life, rather than a skilled employee. Instead of having a specific goal like passing a test or getting a job in a certain field, a liberal arts education has a vague goal of simply making someone a more enlightened person and a more critical thinker.

In both countries, the education systems accommodate the respective styles. In my Chinese high school, the education system is already forcing students to choose majors and college entrance exams have students write down their intended majors, from which few stray. In the US, by contrast, high schools have loose and broad course requirements, and universities expect students to switch their majors after enrolling.

PREVENTION, PROMOTION, AND EDUCATION GOALS

Higgins' theory of promotion and prevention focus fits neatly onto the different goals of the Chinese education system and the American education system. In fact, Higgins' theory produced an experiment that showed just how promotion and prevention can affect our goals, and how having a promotion focus can harm us.

In one experiment students were told about an excellent fellowship opportunity. Then one group was primed to think like a promotioner by framing the fellowship as a great opportunity to be seized, while the other group was primed to think like a preventioner by framing the fellowship as an opportunity they should not make the mistake to miss.

After the experiment, the researchers measured whether the students actually applied for the fellowship. They found that the promotioners were *less* likely to apply for the fellowship, whereas the preventioners were *more* likely to actually apply for the fellowship. Back in Higgins' theory, preventioners focus *quickly* to meet a minimum *standard*; promotioners focus on development toward some sort of ideal maximum goal, without a pressure toward speed. Because there's less worry and little emphasis on speed, sometimes promotioners are likely to let opportunities slip away.

Now, contrast the pragmatic attitudes of my students (and their parents) of choosing majors quickly and for a specific purpose against the relaxed attitude of me and my average American parents. When I was young, I, like most other American children, was told to dream for the stars. If I wanted to be president, I could. If I wanted to be a sports star, I could.

When it came to choosing a major, the ideas given to me were the same. As I graduated from high school and entered college, I had no idea what I wanted to major in. My parents, teachers, and friends encouraged me to take classes in whatever I felt like exploring, so I spent almost two

of my four years taking classes in what I found interesting before I decided to major in psychology. Furthermore, when I chose psychology, the thought of a future career was not in the front of my mind. Rather, what I was concerned about was whether or not I loved learning about psychology.

THE GAOKAO VS. THE SAT

Just yesterday I sat down with a student who had questions to ask me about the verbal portion of the SAT. I told the student that I had scored relatively well on the verbal portion, but she was surprised when I told her that there were many words on the test that I didn't know. After all, English is my native language, and I am a good student. How could there be so many words I didn't know?

The reason lies in the fact that the goals of the SAT and the Gaokao are different. The SAT, in its purest form, is supposed to be a test of your critical thinking skills. The SAT was developed by the developers of a similar army test designed to be an IQ test, rather than a test of accumulated knowledge. This much is suggested in the original name of the test, the Scholastic *Aptitude* Test. (The 'A' was later changed to stand for 'Assessment,' and then later the College Board declared that 'SAT' didn't stand for anything.)

Instead of directly testing how much knowledge you've accumulated, the SAT is supposed to test for pure critical thinking skills. Therefore, the SAT is not supposed to test whether or not I've memorized these words (although it does), but rather whether or not I have the critical thinking skills to figure out the answer even if I'm not sure what the word means.

The design of the math section should make this point even clearer. Besides the most basic algebra and geometry (like the Pythagorean Theorem), the test contains very little in the way of math knowledge. The test doesn't even come close to testing the content of the math curriculum of a college-bound high school graduate. When looking at an SAT math question, you probably don't think about whether covered this in school, but rather whether or not you can figure out. This is critical thinking, not content retrieval.

The Gaokao, on the other hand, has a much more specific goal of more or less testing the knowledge high school students have accumulated over their years of schooling. The Gaokao represents well the concrete goals of the Chinese education system.

YOU'VE SUCCEEDED, WHAT NOW?

The Japanese graduate student I did psychology research with always used to complain that Japanese students were lazy. After they took the huge college entrance exam, she said, they didn't have to worry anymore and they relaxed in their college work. Here again, Higgins' theory can provide insight into these differences, this time the effect on motivation.

In yet another experiment, both promotioners and preventioners had to work on anagrams, unscrambling letters to form words. After completing several anagrams, the participants were told how well they had done on the anagrams.

Interestingly, not everyone was encouraged by hearing they had done well. Preventioners actually did worse after hearing that they were successful on the first part of the test. The preventioners thought that their concrete goal had been attained and thus they could rest. Promotioners on the other hand did even better on the second round after hearing that they had succeeded. Thus, it seems that success encourages promotioners to try even harder, whereas success encourages preventioners to relax.

Failure, on the other hand, helped encourage the preventioners. After hearing that they had done poorly, preventioners were more likely to do better on the second round. Promotioners, however, were discouraged by bad news, and did worse. Thus, failure encourages preventioners to try harder, whereas it discourages promotioners.

This fits nicely my colleague's complaint that Japanese college students weren't motivated to try hard. This could also explain some of the interesting differences I've seen in China. For example, teachers in China seem to give out more low grades (an effective strategy for preventioners), whereas grades are often inflated in the United States (an effective strategy for promotioners). In the same way, the American education system and American parents try hard to make kids feel good about themselves even when they fail, whereas parents in China often seem to be the first to criticize, and thus motivate, their children. This could also be why the parents of my Chinese friends like to use me and my Chinese ability to criticize their children's English ("Look at his Chinese! My son doesn't study his English hard.")

CONCLUSIONS AND THE RETURN OF SPIDERMAN

Although, prevention and promotion focus influence our education systems deeply, it should be clear that neither preventioners nor promotioners are necessarily better off. Each worldview makes basic assumptions about reality and has its own shortcomings. Preventioners tend to be overconservative, whereas promotioners tend to be risk-takers. Naturally, neither attitude will be right or beneficial all of the time.

Furthermore, it should be clear that each attitude exists in a different context. In China, there are many more college applicants than there are spaces in college, making the college admissions process a situation where failure prevention is more important than being the best. China's economy is still developing, and it has an incredibly large population, making the education system much more do-or-die. Finally, China has a long history of imperial exams, which were similarly do-or-die affairs that could determine the lives and fortunes of the candidate and his family.

Yet I would hesitate to say that the differences I see in China are simply a result of the current economic situation or the history of imperial exams. The Chinese (or rather East Asian) take on education is not easily separated from the many parts of culture and society that it is consistent with and that support it. There's probably a reason why the imperial exam system arose like it did in China in the first place, and that reason most likely has at least something to do with cultural thought and Higgins' theory.

Yet a better reason to suspect that prevention focus may be more important than the current economic situation is simply that other developed East Asian countries like Japan and South Korea have education systems still very much like China's.

Western and Eastern societies helps dictate what its individuals think is important and how they understand their environment. Until the day culture turns on its head, my American friend in Chicago will happily continue to walk down the street alone at night despite the fact that he was mugged last year, and the bars protecting the windows on the 20th floor of the apartment building on Shipai Dong Lu will continue to guard against flying criminals—and Spiderman too.

FURTHER READING

For those interested in further reading, the experiments and theory built around Higgins' idea of regulatory focus, a great resource is the Handbook of Self-Regulation: Research, Theory, and Applications (see below). I must warn, however, that (to the best of my knowledge), E. Tory

Higgins has never seen the bars on the windows of the 20th floor on Shipai Dong Lu, so experimental evidence therein is confined to the laboratory. Also, the words "promotioner" and "preventioner" are to the best of my knowledge my own creations and not used by Professor Higgins.

Higgins, T.E. & Spiegel, S. (2004). Promotion and Prevention Strategies for Self-Regulation. In: Roy F. Baumeister, Kathleen D. Vohs. (Eds.). Handbook of Self-Regulation: Research, Theory, and Applications. Guilford Press.

Evidence for promotion and prevention being spread within a group can be found in:

Levine, Higgins, & Choi (2000). Development of Strategic Norms in Groups. Organizational Behavior and Human Decision Processes, 82(1), 88-101.

Finally, evidence that interdependent societies tend to be more prevention focused comes from:

Aaker, J.L. & Lee, A.Y. (2001). "I" Seek Pleasures and "We" Avoid Pains: The Role of Self-Regulatory Goals in Information Processing and Persuasion. Journal of Consumer Research, 28.

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