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There are some kinds of work that you can't do well without thinking differently from your peers. To be a successful scientist, for example, it's not enough just to be correct. Your ideas have to be both correct and novel. You can't publish papers saying things other people already know. You need to say things no one else has realized yet.

The same is true for investors. It's not enough for a public market investor to predict correctly how a company will do. If a lot of other people make the same prediction, the stock price will already reflect it, and there's no room to make money. The only valuable insights are the ones most other investors don't share.

You see this pattern with startup founders too. You don't want to start a startup to do something that everyone agrees is a good idea, or there will already be other companies doing it. You have to do something that sounds to most other people like a bad idea, but that you know isn't — like writing software for a tiny computer used by a few thousand hobbyists, or starting a site to let people rent airbeds on strangers' floors.

Ditto for essayists. An essay that told people things they already knew would be boring. You have to tell them something [new](#).

But this pattern isn't universal. In fact, it doesn't hold for most kinds of work. In most kinds of work — to be an administrator, for example — all you need is the first half. All you need is to be right. It's not essential that everyone else be wrong.

There's room for a little novelty in most kinds of work, but in practice there's a fairly sharp distinction between the kinds of work where it's essential to be independent-minded, and the kinds where it's not.

I wish someone had told me about this distinction when I was a kid, because it's one of the most important things to think about when you're deciding what kind of work you want to do. Do you want to do the kind of work where you can only win by thinking differently from everyone else? I suspect most people's unconscious mind will answer that question before their conscious mind has a chance to. I know mine does.

Independent-mindedness seems to be more a matter of nature than nurture. Which means if you pick the wrong type of work, you're going to be unhappy. If you're naturally independent-minded, you're going to find it frustrating to be a middle manager. And if you're naturally conventional-

minded, you're going to be sailing into a headwind if you try to do original research.

One difficulty here, though, is that people are often mistaken about where they fall on the spectrum from conventional- to independent-minded. Conventional-minded people don't like to think of themselves as conventional-minded. And in any case, it genuinely feels to them as if they make up their own minds about everything. It's just a coincidence that their beliefs are identical to their peers'. And the independent-minded, meanwhile, are often unaware how different their ideas are from conventional ones, at least till they state them publicly. [1]

By the time they reach adulthood, most people know roughly how smart they are (in the narrow sense of ability to solve pre-set problems), because they're constantly being tested and ranked according to it. But schools generally ignore independent-mindedness, except to the extent they try to suppress it. So we don't get anything like the same kind of feedback about how independent-minded we are.

There may even be a phenomenon like Dunning-Kruger at work, where the most conventional-minded people are confident that they're independent-minded, while the genuinely independent-minded worry they might not be independent-minded enough.

Can you make yourself more independent-minded? I think so. This quality may be largely inborn, but there seem to be ways to magnify it, or at least not to suppress it.

One of the most effective techniques is one practiced unintentionally by most nerds: simply to be less aware what conventional beliefs are. It's hard to be a conformist if you don't know what you're supposed to conform to. Though again, it may be that such people already are independent-minded. A conventional-minded person would probably feel anxious not knowing what other people thought, and make more effort to find out.

It matters a lot who you surround yourself with. If you're surrounded by conventional-minded people, it will constrain which ideas you can express, and that in turn will constrain which ideas you have. But if you surround yourself with independent-minded people, you'll have the opposite experience: hearing other people say surprising things will encourage you

to, and to think of more.

Because the independent-minded find it uncomfortable to be surrounded by conventional-minded people, they tend to self-segregate once they have a chance to. The problem with high school is that they haven't yet had a chance to. Plus high school tends to be an inward-looking little world whose inhabitants lack confidence, both of which magnify the forces of conformism. So high school is often a [bad time](#) for the independent-minded. But there is some advantage even here: it teaches you what to avoid. If you later find yourself in a situation that makes you think "this is like high school," you know you should get out. [2]

Another place where the independent- and conventional-minded are thrown together is in successful startups. The founders and early employees are almost always independent-minded; otherwise the startup wouldn't be successful. But conventional-minded people greatly outnumber independent-minded ones, so as the company grows, the original spirit of independent-mindedness is inevitably diluted. This causes all kinds of problems besides the obvious one that the company starts to suck. One of the strangest is that the founders find themselves able to speak more freely with founders of other companies than with their own employees. [3]

Fortunately you don't have to spend all your time with independent-minded people. It's enough to have one or two you can talk to regularly. And once you find them, they're usually as eager to talk as you are; they need you too. Although universities no longer have the kind of monopoly they used to have on education, good universities are still an excellent way to meet independent-minded people. Most students will still be conventional-minded, but you'll at least find clumps of independent-minded ones, rather than the near zero you may have found in high school.

It also works to go in the other direction: as well as cultivating a small collection of independent-minded friends, to try to meet as many different types of people as you can. It will decrease the influence of your immediate peers if you have several other groups of peers. Plus if you're part of several different worlds, you can often import ideas from one to another.

But by different types of people, I don't mean demographically different. For this technique to work, they have to think differently. So while it's an excellent idea to go and visit other countries, you can probably find people who think differently right around the corner. When I meet someone who knows a lot about something unusual (which includes practically everyone, if you dig deep enough), I try to learn what they know that other people don't. There are almost always surprises here. It's a good way to make

conversation when you meet strangers, but I don't do it to make conversation. I really want to know.

You can expand the source of influences in time as well as space, by reading history. When I read history I do it not just to learn what happened, but to try to get inside the heads of people who lived in the past. How did things look to them? This is hard to do, but worth the effort for the same reason it's worth travelling far to triangulate a point.

You can also take more explicit measures to prevent yourself from automatically adopting conventional opinions. The most general is to cultivate an attitude of skepticism. When you hear someone say something, stop and ask yourself "Is that true?" Don't say it out loud. I'm not suggesting that you impose on everyone who talks to you the burden of proving what they say, but rather that you take upon yourself the burden of evaluating what they say.

Treat it as a puzzle. You know that some accepted ideas will later turn out to be wrong. See if you can guess which. The end goal is not to find flaws in the things you're told, but to find the new ideas that had been concealed by the broken ones. So this game should be an exciting quest for novelty, not a boring protocol for intellectual hygiene. And you'll be surprised, when you start asking "Is this true?", how often the answer is not an immediate yes. If you have any imagination, you're more likely to have too many leads to follow than too few.

More generally your goal should be not to let anything into your head unexamined, and things don't always enter your head in the form of statements. Some of the most powerful influences are implicit. How do you even notice these? By standing back and watching how other people get their ideas.

When you stand back at a sufficient distance, you can see ideas spreading through groups of people like waves. The most obvious are in fashion: you notice a few people wearing a certain kind of shirt, and then more and more, until half the people around you are wearing the same shirt. You may not care much what you wear, but there are intellectual fashions too, and you definitely don't want to participate in those. Not just because you want sovereignty over your own thoughts, but because [unfashionable](#) ideas are disproportionately likely to lead somewhere interesting. The best place to find undiscovered ideas is where no one else is looking. [4]

To go beyond this general advice, we need to look at the internal structure of independent-mindedness — at the individual muscles we need to exercise, as it were. It seems to me that it has three components: fastidiousness about truth, resistance to being told what to think, and curiosity.

Fastidiousness about truth means more than just not believing things that are false. It means being careful about degree of belief. For most people, degree of belief rushes unexamined toward the extremes: the unlikely becomes impossible, and the probable becomes certain. [5] To the independent-minded, this seems unpardonably sloppy. They're willing to have anything in their heads, from highly speculative hypotheses to (apparent) tautologies, but on subjects they care about, everything has to be labelled with a carefully considered degree of belief. [6]

The independent-minded thus have a horror of ideologies, which require one to accept a whole collection of beliefs at once, and to treat them as articles of faith. To an independent-minded person that would seem revolting, just as it would seem to someone fastidious about food to take a bite of a submarine sandwich filled with a large variety of ingredients of indeterminate age and provenance.

Without this fastidiousness about truth, you can't be truly independent-minded. It's not enough just to have resistance to being told what to think. Those kind of people reject conventional ideas only to replace them with the most random conspiracy theories. And since these conspiracy theories have often been manufactured to capture them, they end up being less independent-minded than ordinary people, because they're subject to a much more exacting master than mere convention. [7]

Can you increase your fastidiousness about truth? I would think so. In my experience, merely thinking about something you're fastidious about causes that fastidiousness to grow. If so, this is one of those rare virtues we can have more of merely by wanting it. And if it's like other forms of fastidiousness, it should also be possible to encourage in children. I certainly got a strong dose of it from my father. [8]

The second component of independent-mindedness, resistance to being told what to think, is the most visible of the three. But even this is often misunderstood. The big mistake people make about it is to think of it as a

merely negative quality. The language we use reinforces that idea. You're *unconventional*. You *don't* care what other people think. But it's not just a kind of immunity. In the most independent-minded people, the desire not to be told what to think is a positive force. It's not mere skepticism, but an active [delight](#) in ideas that subvert the conventional wisdom, the more counterintuitive the better.

Some of the most novel ideas seemed at the time almost like practical jokes. Think how often your reaction to a novel idea is to laugh. I don't think it's because novel ideas are funny per se, but because novelty and humor share a certain kind of surprisingness. But while not identical, the two are close enough that there is a definite correlation between having a sense of humor and being independent-minded — just as there is between being humorless and being conventional-minded. [9]

I don't think we can significantly increase our resistance to being told what to think. It seems the most innate of the three components of independent-mindedness; people who have this quality as adults usually showed all too visible signs of it as children. But if we can't increase our resistance to being told what to think, we can at least shore it up, by surrounding ourselves with other independent-minded people.

The third component of independent-mindedness, curiosity, may be the most interesting. To the extent that we can give a brief answer to the question of where novel ideas come from, it's curiosity. That's what people are usually feeling before having them.

In my experience, independent-mindedness and curiosity predict one another perfectly. Everyone I know who's independent-minded is deeply curious, and everyone I know who's conventional-minded isn't. Except, curiously, children. All small children are curious. Perhaps the reason is that even the conventional-minded have to be curious in the beginning, in order to learn what the conventions are. Whereas the independent-minded are the gluttons of curiosity, who keep eating even after they're full. [10]

The three components of independent-mindedness work in concert: fastidiousness about truth and resistance to being told what to think leave space in your brain, and curiosity finds new ideas to fill it.

Interestingly, the three components can substitute for one another in much the same way muscles can. If you're sufficiently fastidious about truth, you

don't need to be as resistant to being told what to think, because fastidiousness alone will create sufficient gaps in your knowledge. And either one can compensate for curiosity, because if you create enough space in your brain, your discomfort at the resulting vacuum will add force to your curiosity. Or curiosity can compensate for them: if you're sufficiently curious, you don't need to clear space in your brain, because the new ideas you discover will push out the conventional ones you acquired by default.

Because the components of independent-mindedness are so interchangeable, you can have them to varying degrees and still get the same result. So there is not just a single model of independent-mindedness. Some independent-minded people are openly subversive, and others are quietly curious. They all know the secret handshake though.

Is there a way to cultivate curiosity? To start with, you want to avoid situations that suppress it. How much does the work you're currently doing engage your curiosity? If the answer is "not much," maybe you should change something.

The most important active step you can take to cultivate your curiosity is probably to seek out the topics that engage it. Few adults are equally curious about everything, and it doesn't seem as if you can choose which topics interest you. So it's up to you to [find](#) them. Or invent them, if necessary.

Another way to increase your curiosity is to indulge it, by investigating things you're interested in. Curiosity is unlike most other appetites in this respect: indulging it tends to increase rather than to sate it. Questions lead to more questions.

Curiosity seems to be more individual than fastidiousness about truth or resistance to being told what to think. To the degree people have the latter two, they're usually pretty general, whereas different people can be curious about very different things. So perhaps curiosity is the compass here. Perhaps, if your goal is to discover novel ideas, your motto should not be "do what you love" so much as "do what you're curious about."

Notes

[1] One convenient consequence of the fact that no one identifies as conventional-minded is that you can say what you like about conventional-minded people without getting in too much trouble. When I wrote ["The Four Quadrants of Conformism"](#) I expected a firestorm of rage from the aggressively conventional-minded, but in fact it was quite muted. They sensed that there was something about the essay that they disliked intensely, but they had a hard time finding a specific passage to pin it on.

[2] When I ask myself what in my life is like high school, the answer is Twitter. It's not just full of conventional-minded people, as anything its size will inevitably be, but subject to violent storms of conventional-mindedness that remind me of descriptions of Jupiter. But while it probably is a net loss to spend time there, it has at least made me think more about the distinction between independent- and conventional-mindedness, which I probably wouldn't have done otherwise.

[3] The decrease in independent-mindedness in growing startups is still an open problem, but there may be solutions.

Founders can delay the problem by making a conscious effort only to hire independent-minded people. Which of course also has the ancillary benefit that they have better ideas.

Another possible solution is to create policies that somehow disrupt the force of conformism, much as control rods slow chain reactions, so that the conventional-minded aren't as dangerous. The physical separation of Lockheed's Skunk Works may have had this as a side benefit. Recent examples suggest employee forums like Slack may not be an unmitigated good.

The most radical solution would be to grow revenues without growing the company. You think hiring that junior PR person will be cheap, compared to a programmer, but what will be the effect on the average level of independent-mindedness in your company? (The growth in staff relative to faculty seems to have had a similar effect on universities.) Perhaps the rule about outsourcing work that's not your "core competency" should be augmented by one about outsourcing work done by people who'd ruin your

culture as employees.

Some investment firms already seem to be able to grow revenues without growing the number of employees. Automation plus the ever increasing articulation of the "tech stack" suggest this may one day be possible for product companies.

[4] There are intellectual fashions in every field, but their influence varies. One of the reasons politics, for example, tends to be boring is that it's so extremely subject to them. The threshold for having opinions about politics is much [lower](#) than the one for having opinions about set theory. So while there are some ideas in politics, in practice they tend to be swamped by waves of intellectual fashion.

[5] The conventional-minded are often fooled by the strength of their opinions into believing that they're independent-minded. But strong convictions are not a sign of independent-mindedness. Rather the opposite.

[6] Fastidiousness about truth doesn't imply that an independent-minded person won't be dishonest, but that he won't be deluded. It's sort of like the definition of a gentleman as someone who is never unintentionally rude.

[7] You see this especially among political extremists. They think themselves nonconformists, but actually they're niche conformists. Their opinions may be different from the average person's, but they are often more influenced by their peers' opinions than the average person's are.

[8] If we broaden the concept of fastidiousness about truth so that it excludes pandering, bogusness, and pomposity as well as falsehood in the strict sense, our model of independent-mindedness can expand further into the arts.

[9] This correlation is far from perfect, though. Gödel and Dirac don't seem to have been very strong in the humor department. But someone who is both "neurotypical" and humorless is very likely to be conventional-minded.

[10] Exception: gossip. Almost everyone is curious about gossip.