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PAUL GRAHAM

BEYOND SMART

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If you asked people what was special about Einstein, most would say that he was really smart. Even the ones who tried to give you a more sophisticated-sounding answer would probably think this first. Till a few years ago I would have given the same answer myself. But that wasn't what was special about Einstein. What was special about him was that he had important new ideas. Being very smart was a necessary precondition for having those ideas, but the two are not identical.

It may seem a hair-splitting distinction to point out that intelligence and its consequences are not identical, but it isn't. There's a big gap between them. Anyone who's spent time around universities and research labs knows how big. There are a lot of genuinely smart people who don't achieve very much.

I grew up thinking that being smart was the thing most to be desired. Perhaps you did too. But I bet it's not what you really want. Imagine you had a choice between being really smart but discovering nothing new, and being less smart but discovering lots of new ideas. Surely you'd take the latter. I would. The choice makes me uncomfortable, but when you see the two options laid out explicitly like that, it's obvious which is better.

The reason the choice makes me uncomfortable is that being smart still feels like the thing that matters, even though I know intellectually that it isn't. I spent so many years thinking it was. The circumstances of childhood are a perfect storm for fostering this illusion. Intelligence is much easier to measure than the value of new ideas, and you're constantly being judged by it. Whereas even the kids who will ultimately discover new things aren't usually discovering them yet. For kids that way inclined, intelligence is the only game in town.

There are more subtle reasons too, which persist long into adulthood. Intelligence wins in conversation, and thus becomes the basis of the dominance hierarchy. [1] Plus having new ideas is such a new thing historically, and even now done by so few people, that society hasn't yet assimilated the fact that this is the actual destination, and intelligence merely a means to an end. [2]

Why do so many smart people fail to discover anything new? Viewed from that direction, the question seems a rather depressing one. But there's another way to look at it that's not just more optimistic, but more interesting as well. Clearly intelligence is not the only ingredient in having new ideas. What are the other ingredients? Are they things we could cultivate?

Because the trouble with intelligence, they say, is that it's mostly

inborn. The evidence for this seems fairly convincing, especially considering that most of us don't want it to be true, and the evidence thus has to face a stiff headwind. But I'm not going to get into that question here, because it's the other ingredients in new ideas that I care about, and it's clear that many of them can be cultivated.

That means the truth is excitingly different from the story I got as a kid. If intelligence is what matters, and also mostly inborn, the natural consequence is a sort of *Brave New World* fatalism. The best you can do is figure out what sort of work you have an "aptitude" for, so that whatever intelligence you were born with will at least be put to the best use, and then work as hard as you can at it. Whereas if intelligence isn't what matters, but only one of several ingredients in what does, and many of those aren't inborn, things get more interesting. You have a lot more control, but the problem of how to arrange your life becomes that much more complicated.

So what are the other ingredients in having new ideas? The fact that I can even ask this question proves the point I raised earlier — that society hasn't assimilated the fact that it's this and not intelligence that matters. Otherwise we'd all know the answers to such a fundamental question. [3]

I'm not going to try to provide a complete catalogue of the other ingredients here. This is the first time I've posed the question to myself this way, and I think it may take a while to answer. But I wrote recently about one of the most important: an obsessive interest in a particular topic. And this can definitely be cultivated.

Another quality you need in order to discover new ideas is independent-mindedness. I wouldn't want to claim that this is distinct from intelligence — I'd be reluctant to call someone smart who wasn't independent-minded — but though largely inborn, this quality seems to be something that can be cultivated to some extent.

There are general techniques for having new ideas — for example, for working on your own projects and for overcoming the obstacles you face with early work — and these can all be learned. Some of them can be learned by societies. And there are also collections of techniques for generating specific types of new ideas, like startup ideas and essay topics.

And of course there are a lot of fairly mundane ingredients in discovering new ideas, like working hard, getting enough sleep, avoiding certain kinds of stress, having the right colleagues, and finding tricks for working on what you want even when it's not what you're supposed to be working on. Anything that prevents people from doing great work has an inverse that helps them to. And this class of ingredients is not as boring as it might seem at first. For example, having new ideas is generally associated with youth. But perhaps it's not youth per se that yields new ideas, but specific things that come with youth, like good health and lack of responsibilities. Investigating this might lead to strategies that will help people of any age to have better ideas.

One of the most surprising ingredients in having new ideas is writing ability. There's a class of new ideas that are best discovered by writing essays and books. And that "by" is deliberate: you don't think of the ideas first, and then merely write them down. There is a kind of thinking that one does by writing, and if you're clumsy at writing, or don't enjoy doing it, that will get in your way if you try to do this kind of thinking. [4]

I predict the gap between intelligence and new ideas will turn out to be an interesting place. If we think of this gap merely as a measure of unrealized potential, it becomes a sort of wasteland we try to hurry through with our eyes averted. But if we flip the question, and start inquiring into the other ingredients in new ideas that it implies must exist, we can mine this gap for discoveries about discovery.

Notes

[1] What wins in conversation depends on who with. It ranges from mere aggressiveness at the bottom, through quick-wittedness in the middle, to something closer to actual intelligence at the top, though probably always with some component of quick-wittedness.

[2] Just as intelligence isn't the only ingredient in having new ideas, having new ideas isn't the only thing intelligence is useful for. It's also useful, for example, in diagnosing problems and figuring out how to fix them. Both overlap with having new ideas, but both have an end that doesn't.

Those ways of using intelligence are much more common than having new ideas. And in such cases intelligence is even harder to distinguish from its consequences.

[3] Some would attribute the difference between intelligence and having new ideas to "creativity," but this doesn't seem a very useful term. As well as being pretty vague, it's shifted half a frame sideways from what we care about: it's neither separable from intelligence, nor responsible for all the difference between intelligence and having new ideas.

[4] Curiously enough, this essay is an example. It started out as an essay about writing ability. But when I came to the distinction between intelligence and having new ideas, that seemed so much more important that I turned the original essay inside out, making that the topic and my original topic one of the points in it. As in many other fields, that level of reworking is easier to contemplate once you've had a lot of practice.

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