Is It Worth Being Wise?

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A few days ago I finally figured out something I've wondered about for 25 years: the relationship between wisdom and intelligence. Anyone can see they're not the same by the number of people who are smart, but not very wise. And yet intelligence and wisdom do seem related. How?

What is wisdom? I'd say it's knowing what to do in a lot of situations. I'm not trying to make a deep point here about the true nature of wisdom, just to figure out how we use the word. A wise person is someone who usually knows the right thing to do.

And yet isn't being smart also knowing what to do in certain situations? For example, knowing what to do when the teacher tells your elementary school class to add all the numbers from 1 to 100? [1]

Some say wisdom and intelligence apply to different types of problems—wisdom to human problems and intelligence to abstract ones. But that isn't true. Some wisdom has nothing to do with people: for example, the wisdom of the engineer who knows certain structures are less prone to failure than others. And certainly smart people can find clever solutions to human problems as well as abstract ones.
[2]

Another popular explanation is that wisdom comes from experience while intelligence is innate. But people are not simply wise in proportion to how much experience they have. Other things must contribute to wisdom besides experience, and some may be innate: a reflective disposition, for example.

Neither of the conventional explanations of the difference between wisdom and intelligence stands up to scrutiny. So what is the difference? If we look at how people use the words "wise" and "smart," what they seem to mean is different shapes of performance.

Curve

"Wise" and "smart" are both ways of saying someone knows what to do. The difference is that "wise" means one has a high average outcome across all situations, and "smart" means one does spectacularly well in a few. That is, if you had a graph in which the x axis represented situations and the y axis the outcome, the graph of the wise person would be high overall, and the graph of the smart person would have high peaks.

The distinction is similar to the rule that one should judge talent at its best and character at its worst. Except you judge intelligence at its best, and wisdom by its average. That's how the two are related: they're the two different senses in which the same curve can be high.

So a wise person knows what to do in most situations, while a smart person knows what to do in situations where few others could. We need to add one more qualification: we should ignore cases where someone knows what to do because they have inside information. [3]
But aside from that, I don't think we can get much more specific without starting to be mistaken.

Nor do we need to. Simple as it is, this explanation predicts, or at least accords with, both of the conventional stories about the distinction between wisdom and intelligence. Human problems are the most common type, so being good at solving those is key in achieving a high average outcome. And it seems natural that a high average outcome depends mostly on experience, but that dramatic peaks can only be achieved by people with certain rare, innate qualities; nearly anyone can learn to be a good swimmer, but to be an Olympic swimmer you need a certain body type.

This explanation also suggests why wisdom is such an elusive concept:

there's no such thing. "Wise" means something—that one is on average good at making the right choice. But giving the name "wisdom" to the supposed quality that enables one to do that doesn't mean such a thing exists. To the extent "wisdom" means anything, it refers to a grab-bag of qualities as various as self-discipline, experience, and empathy.
[4]

Likewise, though "intelligent" means something, we're asking for trouble if we insist on looking for a single thing called "intelligence." And whatever its components, they're not all innate. We use the word "intelligent" as an indication of ability: a smart person can grasp things few others could. It does seem likely there's some inborn predisposition to intelligence (and wisdom too), but this predisposition is not itself intelligence.

One reason we tend to think of intelligence as inborn is that people trying to measure it have concentrated on the aspects of it that are most measurable. A quality that's inborn will obviously be more convenient to work with than one that's influenced by experience, and thus might vary in the course of a study. The problem comes when we drag the word "intelligence" over onto what they're measuring. If they're measuring something inborn, they can't be measuring intelligence. Three year olds aren't smart. When we describe one as smart, it's shorthand for "smarter than other three year olds."

Split

Perhaps it's a technicality to point out that a predisposition to intelligence is not the same as intelligence. But it's an important technicality, because it reminds us that we can become smarter, just as we can become wiser.

The alarming thing is that we may have to choose between the two.

If wisdom and intelligence are the average and peaks of the same curve, then they converge as the number of points on the curve decreases. If there's just one point, they're identical: the average and maximum are the same. But as the number of points increases, wisdom and intelligence diverge. And historically the number of

points on the curve seems to have been increasing: our ability is tested in an ever wider range of situations.

In the time of Confucius and Socrates, people seem to have regarded wisdom, learning, and intelligence as more closely related than we do. Distinguishing between "wise" and "smart" is a modern habit. [5]
And the reason we do is that they've been diverging. As knowledge gets more specialized, there are more points on the curve, and the distinction between the spikes and the average becomes sharper, like a digital image rendered with more pixels.

One consequence is that some old recipes may have become obsolete. At the very least we have to go back and figure out if they were really recipes for wisdom or intelligence. But the really striking change, as intelligence and wisdom drift apart, is that we may have to decide which we prefer. We may not be able to optimize for both simultaneously.

Society seems to have voted for intelligence. We no longer admire the sage—not the way people did two thousand years ago. Now we admire the genius. Because in fact the distinction we began with has a rather brutal converse: just as you can be smart without being very wise, you can be wise without being very smart. That doesn't sound especially admirable. That gets you James Bond, who knows what to do in a lot of situations, but has to rely on Q for the ones involving math.

Intelligence and wisdom are obviously not mutually exclusive. In fact, a high average may help support high peaks. But there are reasons to believe that at some point you have to choose between them. One is the example of very smart people, who are so often unwise that in popular culture this now seems to be regarded as the rule rather than the exception. Perhaps the absent-minded professor is wise in his way, or wiser than he seems, but he's not wise in the way Confucius or Socrates wanted people to be. [6]

New

For both Confucius and Socrates, wisdom, virtue, and happiness were necessarily related. The wise man was someone who knew what the right choice was and always made it; to be the right choice, it had to be morally right; he was therefore always happy, knowing he'd done the best he could. I can't think of many ancient philosophers who would have disagreed with that, so far as it goes.

"The superior man is always happy; the small man sad," said Confucius. [7]

Whereas a few years ago I read an interview with a mathematician who said that most nights he went to bed discontented, feeling he hadn't made enough progress.
[8]
The Chinese and Greek words we translate as "happy" didn't mean exactly what we do by it, but there's enough overlap that this remark contradicts them.

Is the mathematician a small man because he's discontented? No; he's just doing a kind of work that wasn't very common in Confucius's day.

Human knowledge seems to grow fractally. Time after time, something that seemed a small and uninteresting area—experimental error, even—turns out, when examined up close, to have as much in it as all knowledge up to that point. Several of the fractal buds that have exploded since ancient times involve inventing and discovering new things. Math, for example, used to be something a handful of people did part-time. Now it's the career of thousands. And in work that involves making new things, some old rules don't apply.

Recently I've spent some time advising people, and there I find the ancient rule still works: try to understand the situation as well as you can, give the best advice you can based on your experience, and then don't worry about it, knowing you did all you could. But I don't have anything like this serenity when I'm writing an essay. Then I'm worried. What if I run out of ideas? And when I'm writing, four nights out of five I go to bed discontented, feeling I didn't get enough done.

Advising people and writing are fundamentally different types of work. When people come to you with a problem and you have to figure out the right thing to do, you don't (usually) have to invent anything. You just weigh the alternatives and try to judge which is the prudent choice. But prudence can't tell me what sentence to write next. The search space is too big.

Someone like a judge or a military officer can in much of his work be guided by duty, but duty is no guide in making things. Makers depend on something more precarious: inspiration. And like most people who lead a precarious existence, they tend to be worried, not contented. In that respect they're more like the small man of Confucius's day, always one bad harvest (or ruler) away from starvation. Except instead of being at the mercy of weather and officials, they're at the mercy of their own imagination.

Limits

To me it was a relief just to realize it might be ok to be discontented. The idea that a successful person should be happy has thousands of years of momentum behind it. If I was any good, why didn't I have the easy confidence winners are supposed to have? But that, I now believe, is like a runner asking "If I'm such a good athlete, why do I feel so tired?" Good runners still get tired; they just get tired at higher speeds.

People whose work is to invent or discover things are in the same position as the runner. There's no way for them to do the best they can, because there's no limit to what they could do. The closest you can come is to compare yourself to other people. But the better you do, the less this matters. An undergrad who gets something published feels like a star. But for someone at the top of the field, what's the test of doing well? Runners can at least compare themselves to others doing exactly the same thing; if you win an Olympic gold medal, you can be fairly content, even if you think you could have run a bit faster. But what is a novelist to do?

Whereas if you're doing the kind of work in which problems are

presented to you and you have to choose between several alternatives, there's an upper bound on your performance: choosing the best every time. In ancient societies, nearly all work seems to have been of this type. The peasant had to decide whether a garment was worth mending, and the king whether or not to invade his neighbor, but neither was expected to invent anything. In principle they could have; the king could have invented firearms, then invaded his neighbor. But in practice innovations were so rare that they weren't expected of you, any more than goalkeepers are expected to score goals.
[9]
In practice, it seemed as if there was a correct decision in every situation, and if you made it you'd done your job perfectly, just as a goalkeeper who prevents the other team from scoring is considered to have played a perfect game.

In this world, wisdom seemed paramount.
[10]
Even now, most people do work in which problems are put before them and they have to choose the best alternative. But as knowledge has grown more specialized, there are more and more types of work in which people have to make up new things, and in which performance is therefore unbounded. Intelligence has become increasingly important relative to wisdom because there is more room for spikes.

Recipes

Another sign we may have to choose between intelligence and wisdom is how different their recipes are. Wisdom seems to come largely from curing childish qualities, and intelligence largely from cultivating them.

Recipes for wisdom, particularly ancient ones, tend to have a remedial character. To achieve wisdom one must cut away all the debris that fills one's head on emergence from childhood, leaving only the important stuff. Both self-control and experience have this effect: to eliminate the random biases that come from your own nature and from the circumstances of your upbringing respectively. That's not all wisdom is, but it's a large part of it. Much of

what's in the sage's head is also in the head of every twelve year old. The difference is that in the head of the twelve year old it's mixed together with a lot of random junk.

The path to intelligence seems to be through working on hard problems. You develop intelligence as you might develop muscles, through exercise. But there can't be too much compulsion here. No amount of discipline can replace genuine curiosity. So cultivating intelligence seems to be a matter of identifying some bias in one's character—some tendency to be interested in certain types of things—and nurturing it. Instead of obliterating your idiosyncrasies in an effort to make yourself a neutral vessel for the truth, you select one and try to grow it from a seedling into a tree.

The wise are all much alike in their wisdom, but very smart people tend to be smart in distinctive ways.

Most of our educational traditions aim at wisdom. So perhaps one reason schools work badly is that they're trying to make intelligence using recipes for wisdom. Most recipes for wisdom have an element of subjection. At the very least, you're supposed to do what the teacher says. The more extreme recipes aim to break down your individuality the way basic training does. But that's not the route to intelligence. Whereas wisdom comes through humility, it may actually help, in cultivating intelligence, to have a mistakenly high opinion of your abilities, because that encourages you to keep working. Ideally till you realize how mistaken you were.

(The reason it's hard to learn new skills late in life is not just that one's brain is less malleable. Another probably even worse obstacle is that one has higher standards.)

I realize we're on dangerous ground here. I'm not proposing the primary goal of education should be to increase students' "self-esteem." That just breeds laziness. And in any case, it doesn't really fool the kids, not the smart ones. They can tell at a young age that a contest where everyone wins is a fraud.

A teacher has to walk a narrow path: you want to encourage kids to

come up with things on their own, but you can't simply applaud everything they produce. You have to be a good audience: appreciative, but not too easily impressed. And that's a lot of work. You have to have a good enough grasp of kids' capacities at different ages to know when to be surprised.

That's the opposite of traditional recipes for education. Traditionally the student is the audience, not the teacher; the student's job is not to invent, but to absorb some prescribed body of material. (The use of the term "recitation" for sections in some colleges is a fossil of this.) The problem with these old traditions is that they're too much influenced by recipes for wisdom.

Different

I deliberately gave this essay a provocative title; of course it's worth being wise. But I think it's important to understand the relationship between intelligence and wisdom, and particularly what seems to be the growing gap between them. That way we can avoid applying rules and standards to intelligence that are really meant for wisdom. These two senses of "knowing what to do" are more different than most people realize. The path to wisdom is through discipline, and the path to intelligence through carefully selected self-indulgence. Wisdom is universal, and intelligence idiosyncratic. And while wisdom yields calmness, intelligence much of the time leads to discontentment.

That's particularly worth remembering. A physicist friend recently told me half his department was on Prozac. Perhaps if we acknowledge that some amount of frustration is inevitable in certain kinds of work, we can mitigate its effects. Perhaps we can box it up and put it away some of the time, instead of letting it flow together with everyday sadness to produce what seems an alarmingly large pool. At the very least, we can avoid being discontented about being discontented.

If you feel exhausted, it's not necessarily because there's something wrong with you. Maybe you're just running fast.

Notes

[1]
Gauss was supposedly asked this when he was 10. Instead of laboriously adding together the numbers like the other students, he saw that they consisted of 50 pairs that each summed to 101 (100 + 1, 99 + 2, etc), and that he could just multiply 101 by 50 to get the answer, 5050.

[2]
A variant is that intelligence is the ability to solve problems, and wisdom the judgement to know how to use those solutions. But while this is certainly an important relationship between wisdom and intelligence, it's not the distinction between them. Wisdom is useful in solving problems too, and intelligence can help in deciding what to do with the solutions.

[3]
In judging both intelligence and wisdom we have to factor out some knowledge. People who know the combination of a safe will be better at opening it than people who don't, but no one would say that was a test of intelligence or wisdom.

But knowledge overlaps with wisdom and probably also intelligence. A knowledge of human nature is certainly part of wisdom. So where do we draw the line?

Perhaps the solution is to discount knowledge that at some point has a sharp drop in utility. For example, understanding French will help you in a large number of situations, but its value drops sharply as soon as no one else involved knows French. Whereas the value of understanding vanity would decline more gradually.

The knowledge whose utility drops sharply is the kind that has little relation to other knowledge. This includes mere conventions, like languages and safe combinations, and also what we'd call "random" facts, like movie stars' birthdays, or how to distinguish

1956 from 1957 Studebakers.

[4]
People seeking some single thing called "wisdom" have been fooled by grammar. Wisdom is just knowing the right thing to do, and there are a hundred and one different qualities that help in that. Some, like selflessness, might come from meditating in an empty room, and others, like a knowledge of human nature, might come from going to drunken parties.

Perhaps realizing this will help dispel the cloud of semi-sacred mystery that surrounds wisdom in so many people's eyes. The mystery comes mostly from looking for something that doesn't exist. And the reason there have historically been so many different schools of thought about how to achieve wisdom is that they've focused on different components of it.

When I use the word "wisdom" in this essay, I mean no more than whatever collection of qualities helps people make the right choice in a wide variety of situations.

[5]
Even in English, our sense of the word "intelligence" is surprisingly recent. Predecessors like "understanding" seem to have had a broader meaning.

[6]
There is of course some uncertainty about how closely the remarks attributed to Confucius and Socrates resemble their actual opinions. I'm using these names as we use the name "Homer," to mean the hypothetical people who said the things attributed to them.

[7]
Analects VII:36, Fung trans.

Some translators use "calm" instead of "happy." One source of difficulty here is that present-day English speakers have a different idea of happiness from many older societies. Every language probably has a word meaning "how one feels when things are going well," but different cultures react differently when things go well. We react

like children, with smiles and laughter. But in a more reserved society, or in one where life was tougher, the reaction might be a quiet contentment.

[8]
It may have been Andrew Wiles, but I'm not sure. If anyone remembers such an interview, I'd appreciate hearing from you.

[9]
Confucius claimed proudly that he had never invented anything—that he had simply passed on an accurate account of ancient traditions. [Analects VII:1] It's hard for us now to appreciate how important a duty it must have been in preliterate societies to remember and pass on the group's accumulated knowledge. Even in Confucius's time it still seems to have been the first duty of the scholar.

[10]
The bias toward wisdom in ancient philosophy may be exaggerated by the fact that, in both Greece and China, many of the first philosophers (including Confucius and Plato) saw themselves as teachers of administrators, and so thought disproportionately about such matters. The few people who did invent things, like storytellers, must have seemed an outlying data point that could be ignored.

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