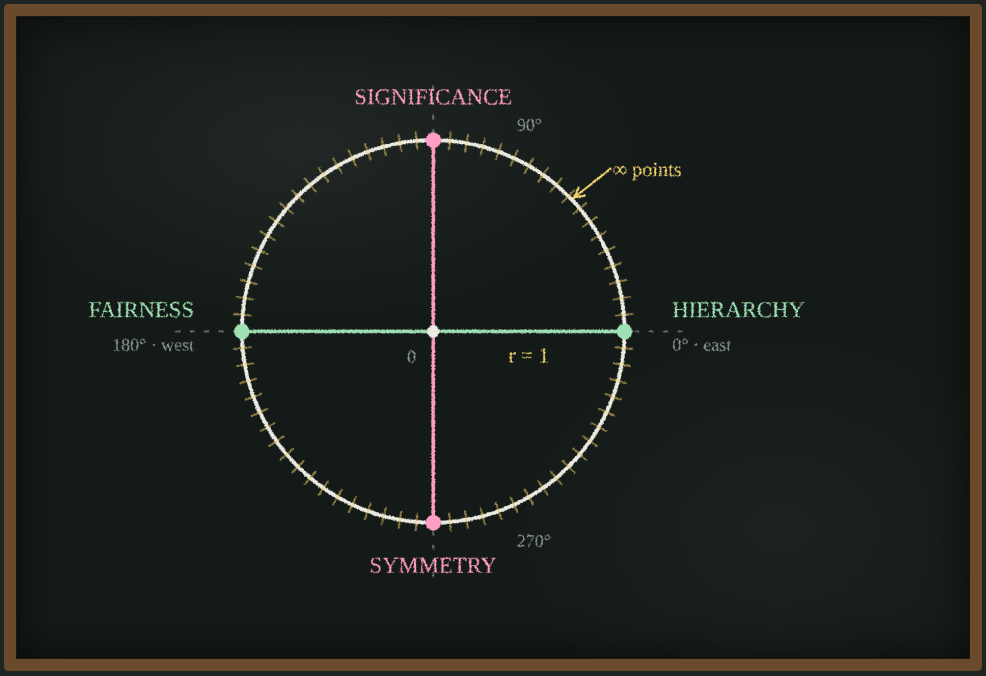
LECTURE · IDEATION · OCTOBER 31, 2026

The Missing *Arrow*

Hierarchy, significance, fairness, symmetry, and where bias comes from.



Lecture transcript · John Rector · Charleston, South Carolina

BOARD 1

An infinite problem, drawn in ten seconds

Good morning. It’s October thirty-first. Today’s lecture is on ideation, and in particular on four ideas I call the cardinal ideas: hierarchy, significance, fairness, and symmetry.

Here is the claim I want you to leave with. You are in relationship with all four of those ideas at all times. Not some of the time. All of the time. And it doesn’t stop at four. There is an infinite number of ideas, and you are in relationship with every one of them, all of the time.

Now, that’s a strange thing to say, and it’s a hard thing to work with. Whenever infinity shows up in a conversation, people get nervous. It sounds impossible. You can’t hold an infinite number of anything in your head.

And yet we can draw it. Easily. Watch.

I’m going to the chalkboard, and I’m drawing a circle. That’s it. That’s the whole drawing for now. A circle.

BOARD 2

The unit circle

On that circle I’m going to put four points. I’ll put them at the four cardinal positions—east, north, west, south—the way you’d find them on a compass.

I start in the east, and I go counterclockwise, the way mathematicians always go around a circle. I’ll use degrees, because degrees are the friendliest unit for those of you who are not in love with math.

At zero degrees, due east, I write hierarchy.

At ninety degrees, due north, I write significance.

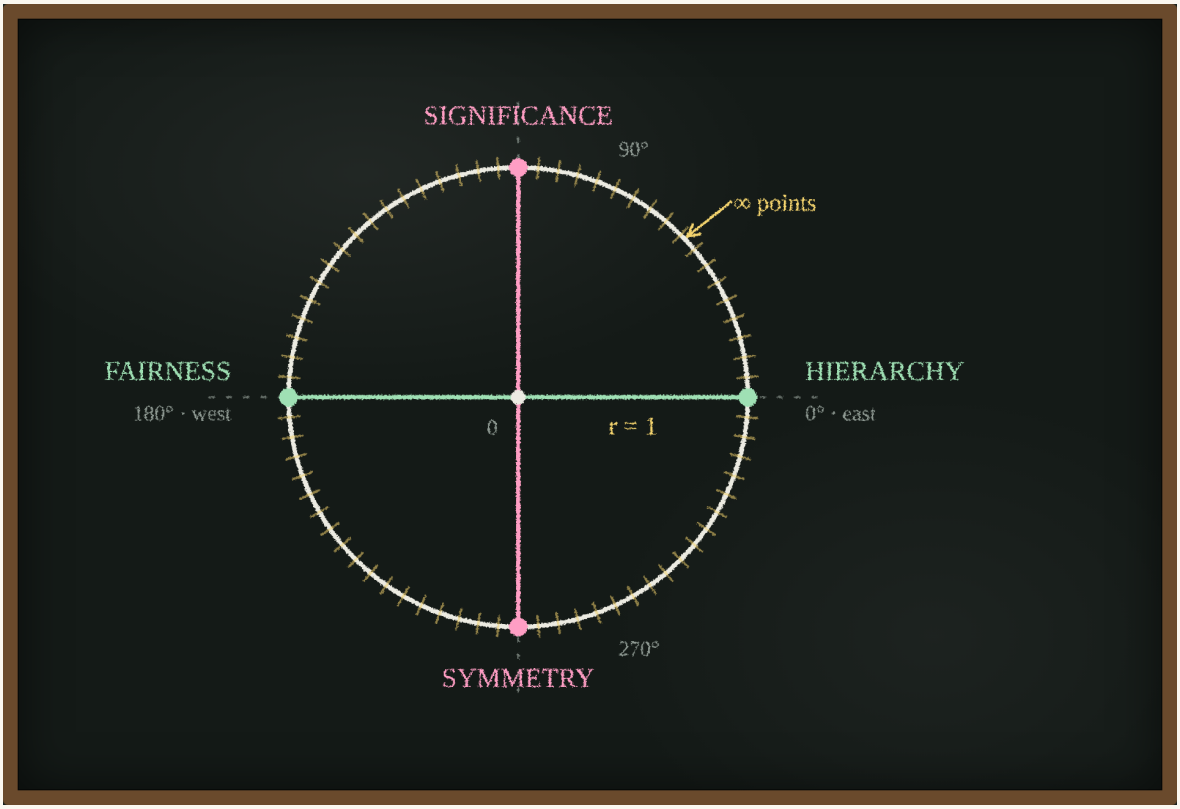
At one hundred eighty degrees, due west, I write fairness.

At two hundred seventy degrees, due south, I write symmetry.

East, north, west, south. Hierarchy, significance, fairness, symmetry.

Those four are what we call endpoints. Each one sits on the circumference—the edge of the circle. Now I draw a line from the center of the circle out to each endpoint. You know what

that line is. It’s a radius. And I want everyone to understand one rule about this circle: every radius has a length of exactly one. That makes this a unit circle. Every idea on the edge sits exactly one unit from the center.

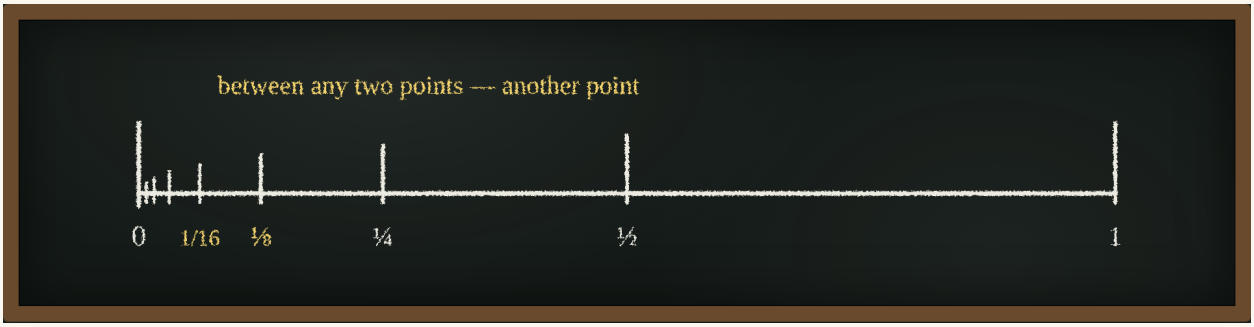


Now here’s the question. And I don’t want you to answer it with a definition. I don’t want you to believe me, either. I want you to know it, the way you know your own name. Look at the circle and tell me: how many endpoints could I draw on it?

Somebody says, “An infinite number.”

Right. And how do you know that? You know it without any mathematics at all. Pick any two points on the circle, however close together, and you can always put another point between them. Always.

It’s the same thing you’d do with a ruler. Between zero and one, there’s a half. Between zero and a half, there’s a quarter. Between zero and a quarter, an eighth. Then a sixteenth. Then a thirty-second. You never run out. You never reach the last point. Nobody had to teach you that. You just know it.



So that circle holds an infinite number of endpoints, and I want you to think of every one of them as an idea. All the ideas in the world live on that edge. We have named four of them. That's all we've done. Four names on an infinite circle, placed at the compass points so we can find our way around.

BOARD 3

Frank goes tip to tail

Now I want to give one of you a number. A single number that tells us something about you. I need a volunteer.

Thank you, Frank.

Frank, we're going to give you a number. And it's going to have a magnitude—a size. You might say, "Why would there be any size at all? Every radius is one." Good question. Hold on to it.

Here's what we're going to do. We're going to do vector addition.

A vector is just an arrow. It has two things: a direction and a magnitude. Which way does it point, and how long is it. Each radius on this board is a vector. It starts at the center and points out toward its idea, and its length is one.

Vector addition is the easiest thing in mathematics. It's called tip to tail. You draw the first arrow. Then you start the second arrow at the tip of the first one. Then you start the third arrow at the tip of the second one. And so on. When you're done, all that matters is one question: where did you end up?

Let's do the four we've named.

First arrow. From the center, one unit east. Toward hierarchy. Put an arrowhead on it if you like; it’s pointing left to right.

Second arrow. Start at the tip of the first. One unit straight up, north. Toward significance.

Third arrow. Start at that tip. One unit west. Toward fairness.

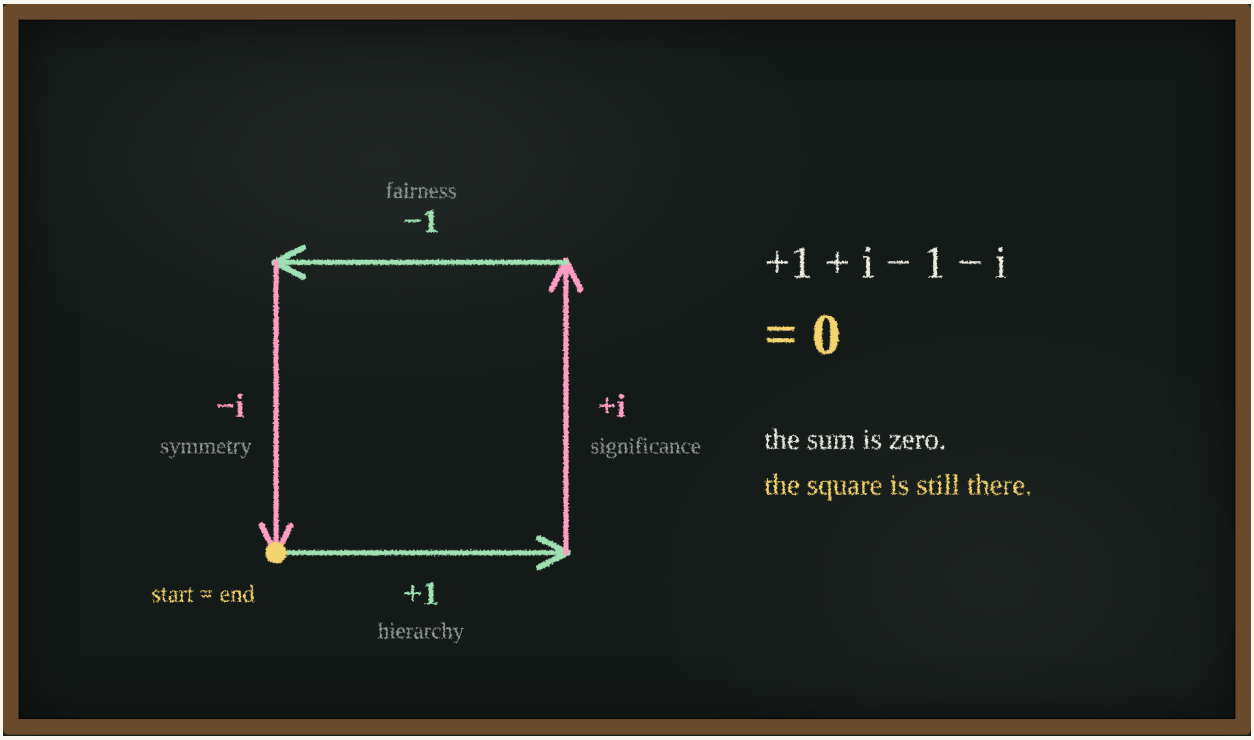
Fourth arrow. Start at that tip. One unit south. Toward symmetry.

Now look at the board. Where did we end up?

Right where we started.

We drew a square, and we came home. When you add these four vectors together, you get zero. They cancel each other out.

We can write it with numbers, too. Call the east arrow plus one. The north arrow, plus i. The west arrow, minus one. The south arrow, minus i. Now add them up. Plus one and minus one: zero. Plus i and minus i: zero i. The total is zero.



But stop and look at what’s actually on the board. The number is zero. And the square is still there.

We do not erase the square.

This is the most important thing I'll say this morning, so I'll say it slowly. We do not erase the square. The arithmetic tells us the sum is zero. It does not tell us the arrows went away. Every one of them is still drawn. Frank, your number is zero, and you are in relationship with all four ideas. Both of those are true at the same time.

BOARD 4

What zero feels like

So, Frank, how do you feel?

Let's go around the square.

Hierarchy. That's rank and order. Structure. Who stands above whom. Do you feel like part of a social order, with a place in it? Yes, you do.

Now go to the opposite side of the board. Fairness, in the west. What is fairness, really, if you mean it in the perfect sense? It's equilibrium. No rank. No order. Nobody better than their neighbor and nobody less. Do you feel that everything is fair, in that sense? Yes.

Significance. Do you feel significant? Yes.

Symmetry. Think of symmetry as something like the relationship between good and evil—each defined across a line from the other. Do you feel that? Yes.

So what does it feel like when you feel hierarchy and fairness at the same time, at full strength? When you feel significance and symmetry at once?

It doesn't feel like anything.

That's why zero matters. Zero is your vector sum. It's your magnitude. It tells me you are in perfect harmony with all four. Every pull is answered by an equal pull on the other side, and what you're left with is quiet.

Now I want to be careful here, because this is where people go wrong. Zero is not a goal. I'm not teaching you to get back to zero. Zero is the floor everybody shares. Every human being you'll ever meet—every entity, actually—is in relationship with every idea. That's the square that never gets erased. Zero is what you have in common with everyone. Hold that thought, because in a minute we're going to find what makes you someone.

BOARD 5

Leave one arrow out

Let’s do it again. Same board, same circle. But this time we leave one out.

Frank, go tip to tail, and leave off the last arrow.

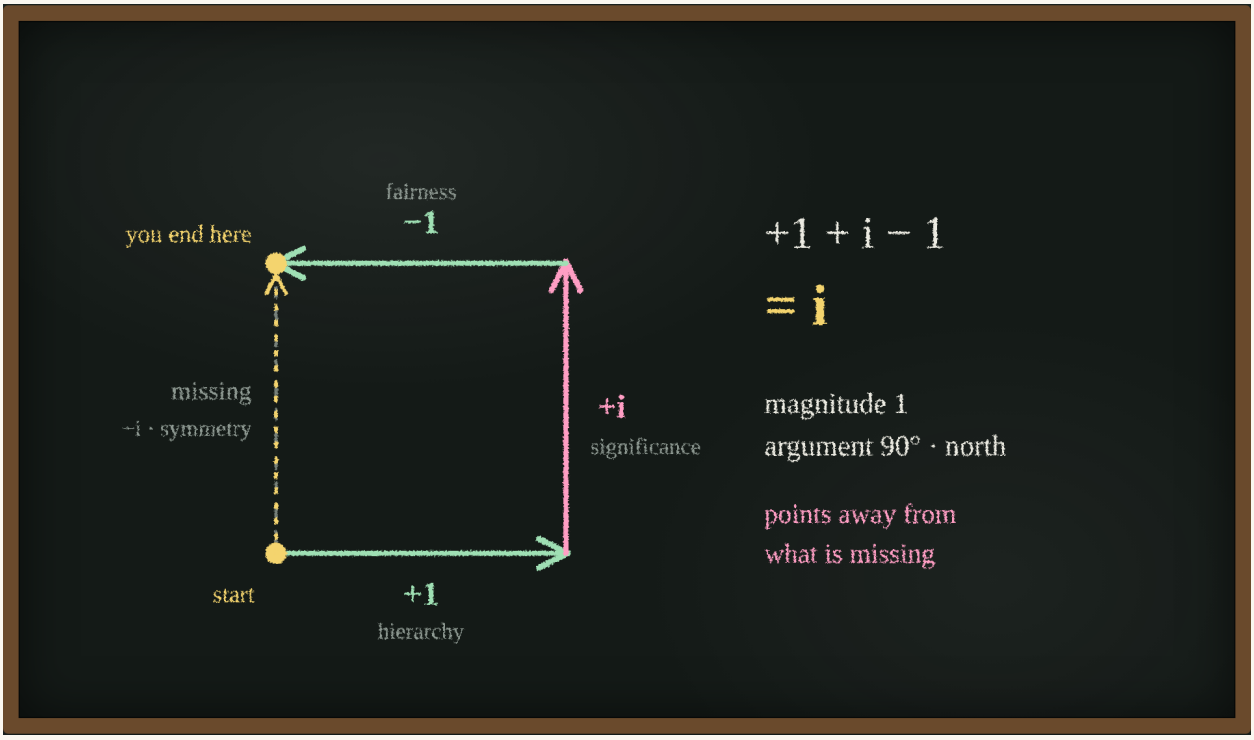
Plus one—east. Plus i—north. Minus one—west. And stop. No arrow south.

What’s on the board now? It isn’t a square anymore. Something’s missing. Three sides of a square, and an open corner.

So where did we end up? You don’t need algebra for this. You don’t need anything. Just look at the board. Where’s the last tip? You never came back. You’re sitting up here, one unit above the center, right on the vertical axis—the i axis, the y axis, whichever you prefer.

The sum is one i.

So now you have a number that isn’t zero. It has a magnitude of one instead of zero. And it has an argument. In mathematics, the argument is just the direction the result points. Where is it pointing? Straight up. Ninety degrees. Toward significance.



So let’s ask again. Frank, do you feel significant? Yes. Do you feel symmetry? No.

And notice the direction. The arrow you left out pointed south. The place you ended up is north. That's not a coincidence. Your result always points directly away from what's missing—one hundred eighty degrees from the gap.

How is this different from before? It's different in every way. For the first time, Frank, you have a number. You're on the board.

And here's what that number tells us. Now, this may sound strange, but stay with me. Whatever this diagram belongs to—and I'll call that thing an entity—is biased. Prejudiced. An entity could be you. It could be a plant. It could be a nation-state. It could be a solar system. Anything that is in relationship with ideas can be drawn on this board.

Frank, you don't have the fourth arrow that brings you home to zero. So the first thing we just learned about you is that you are prejudiced and biased.

Toward what? Toward wherever your tip ends up. You just look at the board and see where the last arrow stops.

With four ideas, you can only land on four directions. But remember, there aren't four ideas. There are infinitely many. So when you take them all into account, you might land northwest. You might land southeast. More precisely, on a circle we can say exactly which degree you're at. Will you have more than one degree? No. You'll have one. One direction, and one magnitude. That's your number.

BOARD 6

The except

Now, how big can that magnitude get? It could be one. It could be four or five. It could be a half. Why?

Because what we're really doing is taking an infinite number of arrows and stacking them tip to tail.

You'd think that would take forever. It doesn't. Every one of you could do this math in under a minute—even those of you who are allergic to the word vector. Because you'd notice something right away: they all cancel out.

Except.

That's the word. Except.

You know you're in relationship with every idea, all the time. So you should always be at zero. Except that isn't how you feel. You feel frustrated. You feel adamantly opposed to something. You feel very tolerant of this, but not of that.

What is that? By definition, that's prejudice. That's bias.

In American culture especially, those two words come with an accusation attached. They mean something is wrong with you. But look at it from this board. All the words mean is that you have a direction. You have a magnitude. It's almost mechanical. And the honest name for having a direction and a magnitude is: prejudice and bias.

How would you find out what you're biased toward? Listen for the word except.

"I love food. Except Japanese food." There's your exception.

"I love all sports. Except bowling." There it is again.

Every except is a missing arrow. It's an arrow that was supposed to be added in, the one that would have brought you back toward zero, and for some reason it isn't there.

Does that make you a bad person? It does not. It makes you prejudiced and biased. Which is to say, it makes you a person.

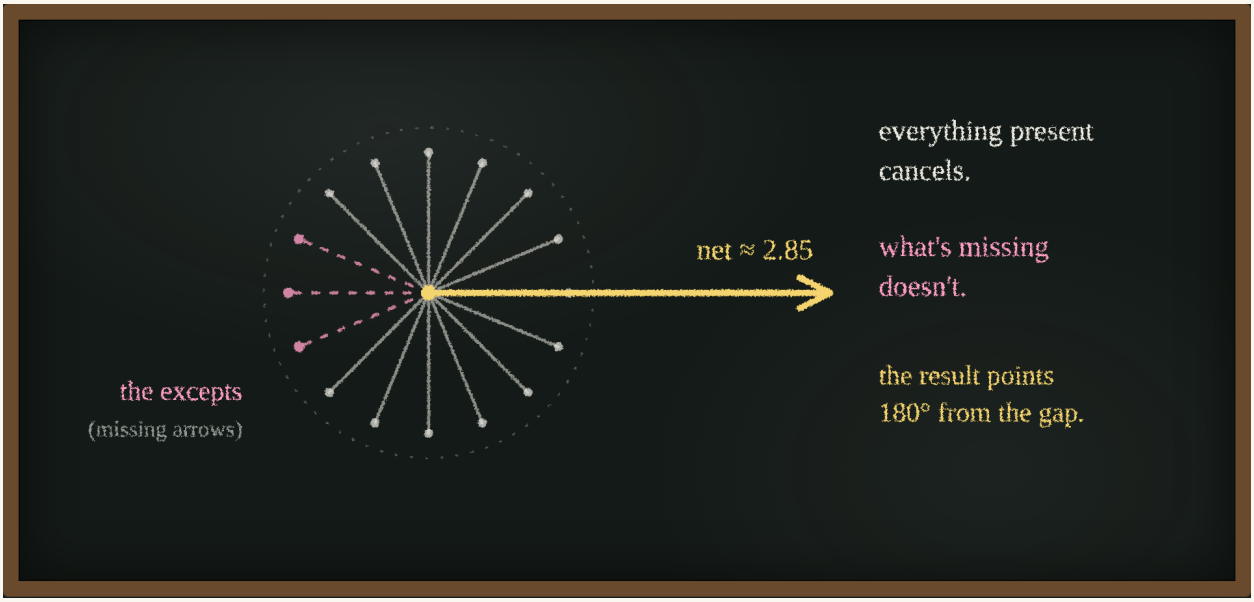
Everybody you know is prejudiced. Everybody you know is biased. There's nobody you know who is a perfectly indifferent being. However tolerant they say they are, you could find something they're adamantly opposed to.

And what is "adamantly opposed" on this chalkboard? It's a missing arrow. If you take one thing from today, take that. Adamantly opposed is a missing arrow.

Adamantly opposed is a missing arrow.

So here's the proper way to say it. Add up all the infinite arrows, and they all cancel out—except where there are missing arrows.

You might have several missing arrows. If they're all in the same neighborhood of the circle, clustered together, they add up to a strong magnitude. And the direction, again, points one hundred eighty degrees away from the cluster.



But what if your missing arrows are scattered all around the circle, well balanced? Then they mostly cancel each other, too. You'd still have a magnitude, but it might be around one. A half. Maybe two. Not large.

BOARD 7

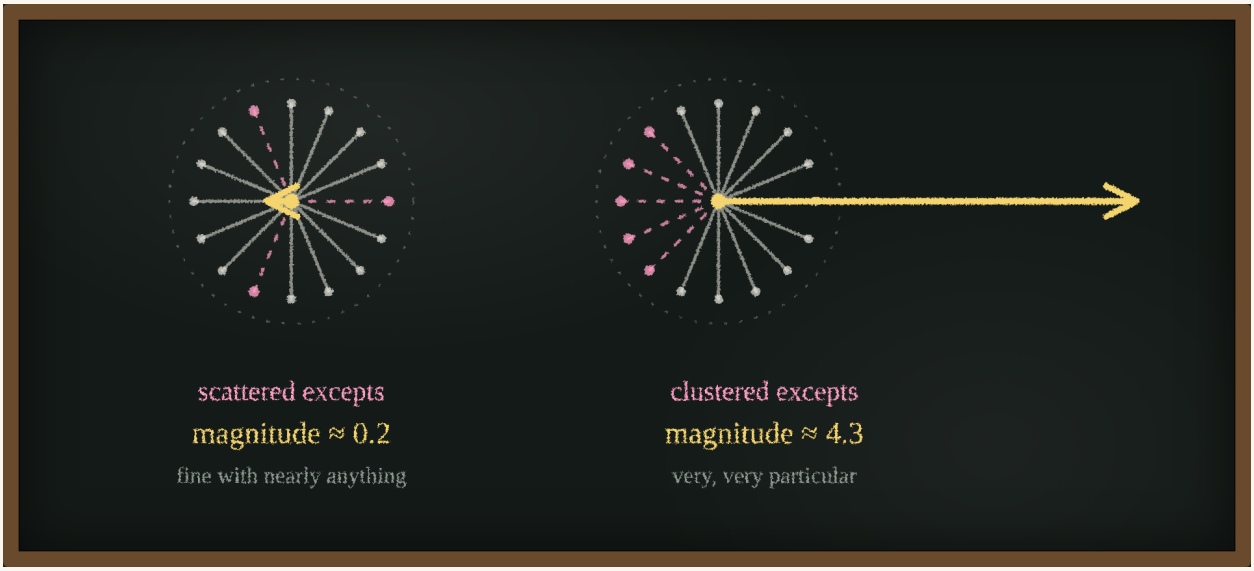
Magnitude is the measure

Now, between the two parts of your number—the magnitude and the argument—which one matters more?

For most of the work we do, it's the magnitude. The argument, the direction, is useful for diagnosis—really at a psychological level, when you want to know what someone is pulled toward. But for the exercises, all you need is the magnitude.

And the magnitude is interesting. The larger it is, the more you'll find that this particular person—or this nation, or this institution, or whatever the entity is—seems to have a strong ideology. A very strong preference. A very strong bias. A very strong prejudice. A very strong opinion.

People who are fine with pretty much anything have a low magnitude. People who are very, very particular have a high one.



BOARD 8

A high-magnitude life

Let’s take an example. Martin Luther King.

He’s a great one to work through, because “prejudice” and “bias” are two words nobody associates with him. And yet he would tell you himself. He stood on a stage in Detroit in June of 1963, and he said that if a man hasn’t discovered something he will die for, he isn’t fit to live.

That is a very strongly opinionated man. Would he have a low magnitude or a high magnitude? High. Very high. He is heavily biased toward a particular idea.

Now, can you say what the idea is? For a lot of people, you can’t. They seem to range everywhere—polymaths, Renaissance men and women. Their arrows are missing in so many places that the direction is hard to read.

With Martin Luther King, you can. And it’s important to get it right. It isn’t equality. You’d miss him if you said equality. It’s justice. He wrote it from a jail cell in Birmingham that same year: injustice anywhere is a threat to justice everywhere.

Put that on the board. If you can tolerate both justice and injustice—if both arrows are present and they cancel—you sit quietly at zero on that axis. He could not. The arrow toward injustice was missing. Gone. And his whole life pointed one hundred eighty degrees away from it.

That’s what a high magnitude looks like from the outside. Clarity. A direction you can name.

BOARD 9

Why perfectly fair people are rare

Which brings us back to fairness, because it’s easy to get confused here.

You might think fairness and justice are the same thing. They aren’t. One group will tell you fairness means this. Another group, just as sincerely, will tell you fairness for all means something completely different.

And go over to hierarchy. In a social order with rank, that’s where you find the laws. That’s where justice and injustice get written down and distinguished from each other. Go all the way back—before Rome, before the pharaohs, to the earliest law codes we have, and including the Bible—and you’ll find precise rules for how a master should deal with a slave. Justice and injustice, side by side, inside an order of rank.

So you can’t just pigeonhole justice with fairness, or injustice with hierarchy. It’s on both sides.

What you can say about fairness is this. To be perfectly fair means justice and injustice balance each other out. The magnitude of justice is one. The magnitude of injustice is one. They point in opposite directions, and they cancel.

Why do you so rarely meet someone you’d call perfectly fair? Because the moment you call something just, you’ve defined something else as unjust. Almost by accident.

It’s the same with beauty. The moment you say “beautiful,” you’ve drawn the line that defines ugly. When you use the word beautiful, you are, in a real sense, announcing your own prejudice. It’s so baked into how we talk that we never notice it.

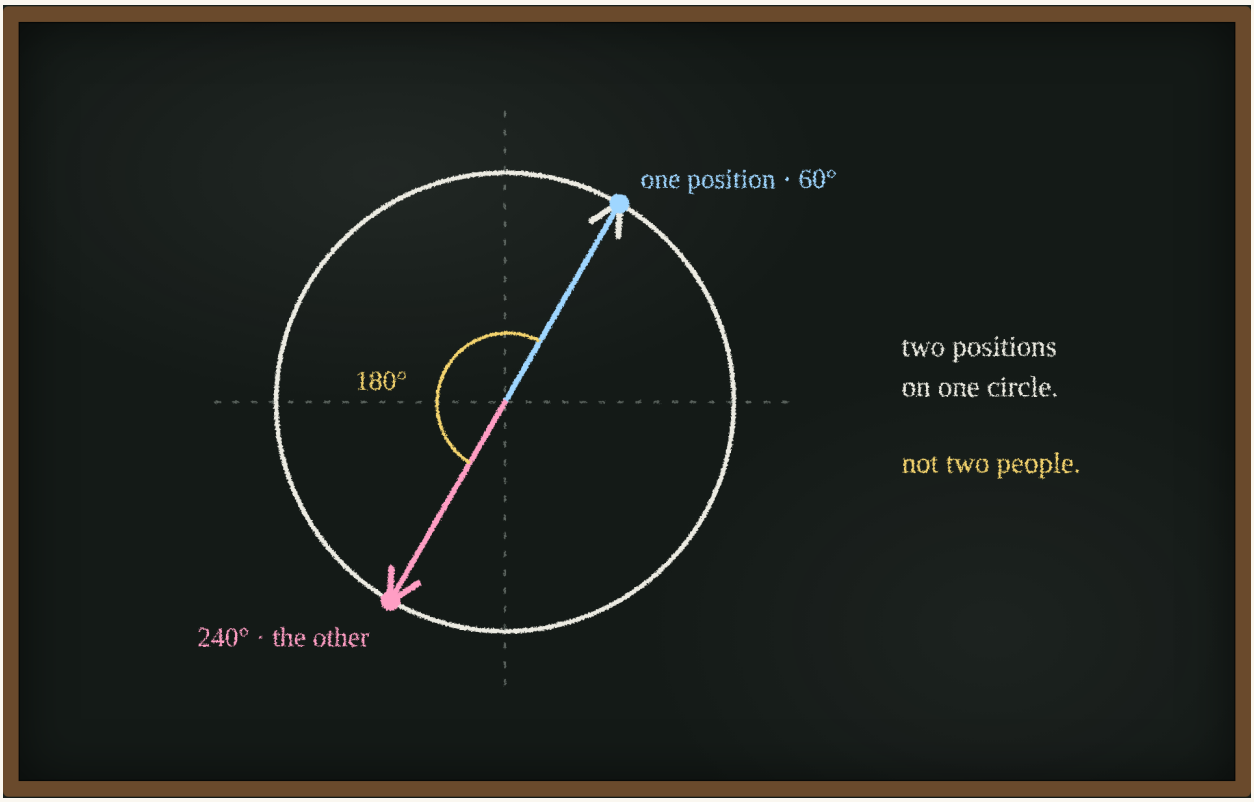
BOARD 10

The point one percent

So here’s where we are. If you were truly perfect, you’d be at zero. And in one sense you are. You are in relationship with every idea. Except. The except is the whole story. A few arrows are missing.

Everybody you know—whatever their age, religion, creed, or country—is in relationship with ninety-nine point nine percent of the same ideas you are. It's the last tenth of a percent we're dealing with, all the time.

Which tells you something about arguments. When two people argue, it isn't really two human beings arguing. Put them on the board. One of them lands at sixty degrees. The other lands at two hundred forty. Exactly opposite—one hundred eighty degrees apart. What's arguing is two positions on a circle.



That's why I say people don't have ideas. Ideas have people. The idea is the thing on the circle. The person is the one in relationship with it.

BOARD 11

Your number moves

And how do we know the argument isn't really about the people? Because for the average human being, this number moves. A lot.

There are people—and you've met a few—who are in a deep and profound relationship with one idea, and their number barely moves at all. Year after year, same direction, same

magnitude.

But the average human being? Draw their board on a different day and you could get a completely different number.

Now, notice something about the way it moves. You don't move it by reaching in and adding an arrow. You can't decide to stop being opposed to something any more than you can decide to stop being hungry. The arrows aren't yours to place. Your number moves because of what happens to you—what you live through, what you see, who you meet. History reaches in. You don't.

For those of you who've worked with the Reality Equation, this board belongs on the bottom of it. Expectation is a complex number: E equals P plus i I. The real part, P, is prediction—what habit and history expect. The imaginary part, I, is the Ideal—the pull of ideas. This board is a picture of that pull. Not the ideas you have; you're related to all of them. The pull comes from the gaps. The missing arrows are what give the Ideal its size and its direction.

BOARD 12

The assignment

So here is your assignment.

Take a sheet of paper and write three sentences. Each one starts the same way: "I love blank—except blank."

Be honest. Don't write the ones that make you look good. Write the ones that are true.

Then draw a circle. Put your three excepts on it, wherever they seem to belong, and draw them as missing arrows. Then do the tip to tail—just look where the remaining arrows leave you. Which way do you point? And how far from the center?

You won't get it exactly right. That's fine. The point is to see that you have a direction at all.

Remember the two things on the board this morning. The square never goes away. And the number is made of what's missing.

Zero is what you share with everyone. Your except is what makes you someone.

That's the lecture. Thank you, Frank. You can sit down.

johnrector.me/2026/10/31/the-missing-arrow