

**This is a device** that was created by Ralph Stacey. It used to be called the Stacey matrix but then he went in a different direction and he didn't want it called the Stacey matrix because he was going off to do something else; so now we call it the *degree of uncertainty or degree of agreement matrix*.

**This is just an interesting** way to categorize problems, to figure out where your problem goes. The two axes of this, defining this space, are agreement—and that's a social axis. What it means is: how much agreement is there about what to do about this problem? Is it something that people feel very differently about? Are there are different arguments that aren't clear? There is usually some degree of difference; but how broad is that? How far are we from a clear understanding or how close are we to figuring out that, "*Yeah, that is sort of what we should do about it*"?

**The other is certainty**, which could be a more technical thing, if you wish; but it has to do with our understanding of what the problem is. Not what to do about it, but do we know what's *causing* this problem? Do we know how to fix it or how to solve it, what its nature

is, what contributes to it? Is that something that we're pretty certain about? It may be you if it's a personal issue or it may be everybody.

**These are the two axes.** The argument is that simple problems—the ones that we really can plan and control about—are close to agreement and close to certainty. We may have spent some time thinking about which of a couple of available ways to think about or handle this problem and we may need to take a little time to kind of clean up our understanding of what's causing this; but most of it is pretty accessible to us.

**When it comes to figuring** out, we just need to gather information in pretty conventional ways to be pretty certain about what's causing this problem to get through. We've got the right categories, we have the knowledge, and we also have a pretty good idea. Most people agree that if that's the problem, this is what you need to do about it. Right now, for example, medicine is a good one because problems start out as very complex in medicine and then go down to something that is often quite simple. How do you treat a strep throat? We know what causes a strep throat. We all are in agreement about what do you do about a

strep throat. You treat it with antibiotics. It can cause very severe consequences if you don't. Even though we are suspicious of antibiotics increasingly and certainly moving farther from certainty about whether antibiotics are good for *everything*, a strep throat is not something we argue about because we know it could have bad consequences, is very contagious, and we understand what causes it and how to fix it, right?

**That's a simple problem.** On a personal level you might say something like, "*What am I going to eat for dinner?*" That's a pretty simple problem. Again, we have a fair certainty about the fact that we do need to eat, about the range of foods that we should eat, and how they ought to be combined. We're all pretty much in agreement that dinner should be eaten and it should be a certain kind of food; and it's not a difficult problem. It might be a problem that's worrying you. There might be other aspects of it, other technical aspects of it. Well, I don't have much money and I know what I feel like eating, but can I afford it? You might have to go out and gather a bit of information about it but, in fact, it's pretty simple.

## Complex problems | The agreement/certainty matrix

**The next one**, though, is around complicated. As you move away from this agreement and certainty, things become more complicated. As we move away from certainty to being far from, things become technically more complicated. If we move away from close to far from around agreement, it becomes *socially* more complicated.

**For example**, we may be close to agreement about the fact now that climate change is happening. If you were to take this debate 15 years ago, we'd be pretty far from certainty there, too, but we're pretty close to certainty that it's happening; but we're still quite *far* from agreement about what to do about it. It's still a very socially complicated issue.

**We may have some things** that there's much more agreement about socially, though, for example, that we need to build a different agenda for Indigenous populations in Canada. But how to do it ... still we're very far from certain. It's not technical, it's social and it's really hard to figure it out.

**We may be** ... the international community may be pretty close to agreement that we really have to stop the conflict in the Middle

East but *how* to do it is extremely difficult. You can go either way. Issues just sort of will wash around in there. The key thing that makes it complicated as opposed to simple is that at least on one of those axes you are somewhat far from understanding or agreement.

What makes it less than *complex* is the fact that we have a pretty good idea about methods to go about answering or reducing that uncertainty or building greater agreement. We've sort of defined those arenas and we know how to do it.

**When you get into the zone of complexity** is when you're far from agreement and far from certainty. You don't either understand the nature of the problem nor are you agreed about what to do about it. A great example of that right now is something like mental health. There's a whole set of different kinds of technologies that are available. They don't seem to really answer the problem. There's huge variation on what and how people with mental health challenges should be treated, excluded, included, put in the streets, put in the hospitals, put in their own houses, treated like everyone else, not treated like everyone else.

**We have approaches** which suggest therapy. We have approaches that suggest drugs. We have approaches that suggest family counselling. We have approaches that say lock them up. But we don't really know. We don't know what causes it and, therefore, we don't really know how to treat it.

**When an issue like that** is both far from agreement and far from certainty, we enter into the zone of complexity. The zone of complexity is somewhat different than something which is just chaotic or hopeless. It comes into the realm of feeling like, "*This is something we ought to be able to figure out and ethically it is something that we feel we want to do something about.*" Everyone can be in agreement with that, but they can't be in agreement about what to do and then completely uncertain about *why* the problem exists and what to do about it.

**Those are complex problems.** It's important to understand the difference between simple, complicated and complex because you need to apply the right methodologies to the right problem. We run into trouble when we're using complicated methods to solve complex problems and we waste a huge amount of time when using complexity

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theory to try to solve simple problems or even complicated technologies to try to solve simple problems.

**Yet we can often do that.** An organization can spend two hours trying to figure out what they should serve at the annual picnic and when it should be; but they can't spend five minutes on what to do about mental health in the work place because people tend to avoid it. They know there's no agreement and they know there's no certainty.

**When you're out there** in the area of complexity, it is very, very demanding and it's difficult, but it *can* be made easier by looking at this problem from using these complexity lenses and complexity theory so it's important to be able to divide them.