## **YOU WILL REMEMBER THIS**

## Can you pass the test?

## **BY JUSTEN RUSSELL**

S o, tell me, are you excited? It's not every day that you meet an alien. The test you are about to take is different for everyone. Believe me, I watched

one man strip naked and start dancing on the table before he could hear anything!

One woman ate the red ball! Oh, she was fine — she even returned it a few days later.

As you can imagine, neither idea worked, though people try in creative ways.

Has someone explained the test to you? Think of it more as a monitored interaction than an exam. We need to be sure you will act responsibly the next time you encounter an alien.

Typically there are four coloured balls, although some places still use a deck of cards. Go in the room, talk to — have you ever seen an alien before? Cassandra will be in the liquid methane tank to your right. Just listen to what she has to say, then do anything. That's it.

She will tell you what she has seen, looking backwards from the other direction, and I promise —

despite the alien accent — you will remember those words, complete with every pause and stammer. How can anyone forget the first time they hear the future?

Me, I can recall them backwards or forwards. I was told: "Honestly, I am surprised ... you touch nothing and ... every ball falls to the ground when ... it should be that ... nothing moves ... because they are balanced on the table ... not falling ... one on top of another ... placing them in a pile then ... you pick them up."

It seemed so simple to prove that wrong. Everything would fall while I did nothing? I touched everything!

I grabbed each ball and stacked them, an

old party trick, so that they stood one on top of another. The opposite of falling.

It was only after, when I stepped back and looked at my pile, that I realized I had done exactly as the invigilator had said in

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Follow Futures: ©NatureFutures f go.nature.com/mtoodm her backwards alien way: "You pick them up ... placing them in a pile ..." That's how they see the world, backwards, remembering the future and not the past.

Afterwards, when my invigilator told me to "reset the balls", I asked what I would do next. Only, she never answered. To her I had not yet asked the question.



Passing this test is not about defying the prediction; that's impossible. It is about trying. It's one thing to be told the future is fixed, it's another to feel it. And, until you understand that your choices still matter, Cassandra will be the only alien you interact with. I cannot pass you if I have doubts.

Yes, it's possible to fail. Honestly, some people need multiple attempts, and that's okay. Patrick Xu needed six tries to pass. Yes, that Patrick Xu.

We get examinees here often who think the trick is not to fight fate. I will hear Cassandra say, "After picking up the green ball ... you leave quickly," then watch them do that. Those are the kinds of people who are the most dangerous to send into space, the people who think predetermination means they don't ever have to make a choice again.

Do you think Commander Xu could have landed the *Aloha* on Titan's Mayda Insula if he thought "the future is set" or "my decisions don't matter"? The choices you will make are still choices, even if you have already made them. The cosmonaut who doesn't understand that is the one who takes their hands off the controls and lets the spaceship crash because "que sera, sera".

This test is to ensure you don't think like that. That you, too, will keep fighting to land your ship even though a crash may be predetermined — because if you won't, a crash

is predetermined.

If you want my advice, talk to Cassandra. Few examinees do, but she can understand you, just — umm — don't expect the conversation to feel natural. Time is opposite for her. Her answers will come before your questions.

You know they also take the test? When you tire of exploring the Galaxy you can join the testing service. As an invigilator I spent two years under the Ligeia Mare in a room just like ours. It turns out they are just as troubled by the fact that we are never wrong. I watched from my oxygenated chamber as they threw objects around or swam in circles, then I would tell them what I had just seen them do. Only, from their perspective, the test had not yet taken place.

Before I lived there I used to wonder about first contact. How poorly it must have gone to be the last time they talk to us. But

having lived among them I understand it differently.

It becomes hard not to think of them as non-conscious, because you cannot understand the reasons they do the things they do. But they are as thoughtful as we are. Their brains just work in the opposite way to ours, filing memories as entropy decreases, rather than, as we do, while entropy mounts. If you reverse cause and effect, there is still an effect and a cause, just the other way around and invisible from our perspective.

Interaction with them is as enlightening as it is disturbing, but it is disturbing. As time goes by, from our perspective, you know them more and more while they know you less and less. It's only for a short time we can be equals. Eventually, we too will have to let their infant society go. The future is ours, as the past is theirs.

So, are you ready to meet your first alien?

As a microbiologist, **Justen Russell** likes to write short fiction for his bacteria. Thus far the effect on their growth has not been statistically significant.