

John Cacioppo: ‘Loneliness is like an iceberg – it goes deeper than we can see’

By Interview by Tim Adams

Loneliness is contagious, heritable, affects one in four people – and increases the chances of early death by 20% – says US social neuroscientist John Cacioppo. The good news? He thinks it can be treated...

Professor John Cacioppo has been studying the effects and causes of loneliness for 21 years. He is the director of the University of Chicago’s Center for Cognitive and Social Neuroscience. His book *Loneliness: Human Nature and the Need for Social Connection* examines the pathology and public health implications of the subject.

You have been studying social connection and loneliness for more than two decades. How did you come to it as a subject?

It was not biographical, I don’t think. Back in the early 90s I had outlined the new field called social neuroscience, the study of the neural mechanisms within a defined social species. Social species are those that create stable bonds, which have societies and cultures. And neuroscience hadn’t really studied those things.

Was it something that neuroscientists, with their emphasis on individual brains and cells, resisted?

When I proposed it in 1992, I anticipated some kickback from colleagues, so in the original papers I proposed that “social neuroscience isn’t an oxymoron”, and I explained why. That was all well and good, but I quickly realised that theoretical arguments were not going to be enough on their own. I needed to have a convincing demonstration of social neuroscience.

And you chose loneliness for that?

Well, I was originally interested in social connections. I argued we are defined by social connections, so what happens in the brain when you absent those? I took one other step. I said that the brain is the organ for creating, monitoring, nurturing and retaining these social connections, so it didn’t matter whether you actually had these connections, what was important was whether you felt that you had them. There is a big difference between objective isolation and perceived isolation, and very quickly we learned that perceived isolation was loneliness, and that had not been studied.

Some people have a great many connections but also feel lonely

Yes. In fact, often times, fewer is better. The classic case is the billionaire who sees that everyone wants to be their friend, but in the billionaire’s eyes none of those are effective, because they are seen as being motivated by material gain.

You say in your book, that in answer to the question “How many confidants do you have?” 25% of Americans said they had no one at all. Is one confidant enough to change brain chemistry if it is a quality connection?

Enough is always a hard term, but certainly one is hugely better than zero. Two is probably better than one. The true answer to your question is that it depends on context. If, to take an extreme example, you are in a state of war, then one probably isn’t enough – you need a small army of people around you.

Is it possible for that confidant to be a therapist, a professional person?

No. That would be better than not having anybody, but one of the things that we have learned is that avoiding loneliness is not about “getting”, not about being a recipient. Despite what economists say, that is not how we are designed. We need mutual aided protection. If you are only receiving aid and protection from others, that doesn’t satisfy this deeper sense of belonging. Being just a client of a psychotherapist fulfils some needs, but it doesn’t fulfil that real need to have a rich reciprocal bond.

You have produced some data that suggests loneliness is contagious. How does that work?

It is actually stunningly simple as a mechanism. In one study we looked at people’s connections, every three to four years. This process happens over time. Let’s say that you and I are neighbours. I have become lonely for some reason and you are my friend. As a suddenly lonely person I am now more likely to deal with you cautiously, defensively, as a potential threat to me [because you might leave and add to my pain], and you recognise that so we are going to have more negative social reactions. And over three or four years we are more likely to stop being friends. So that is one less confidant for both of us.

So relationships have to go both ways to be beneficial?

Yes, and it doesn’t end there. Because you interact less well with me as a neighbour, when you go to work we can see you are more likely to interact negatively with someone else. And so it goes on.

There is that sad quote in your book from someone saying “I can remember exactly the year when eye contact stopped...” Why do we sometimes seem at pains to avoid connection?

What we think we prefer is often counter-productive for us. Loneliness is like an iceberg, we are conscious of the surface but there is a great deal more that is phylogenetically so deep that we cannot see it.

There is a statistic that there are 30% more people living alone in the US than there were in 1980. Obviously people living alone are not necessarily lonely, but it seems quite a fundamental shift in society. Does that help to explain a rise in these problems?

It’s true that there is a big increase, partly because of ageing and to do with the fact that women live longer than men. Whether it leads to more loneliness is not clear. When people move into a senior citizen home, say, those people are often more lonely because even if they were living on their own, they have been removed from a sense of family and friends and their neighbourhood.

You describe humans as “obligatorily gregarious” and suggest that if we were designing a human zoo, a note should be added “do not house in isolation”. To what extent is that a universal trait?

Loneliness is heritable, we have discovered. The sociality that is designed into our brains and DNA therefore has individual variation. In terms of the heritability of loneliness, we have taken that to mean disconnection is differentially painful. Some people it hardly bothers at all, some people it disturbs so much as to become a pathology. Those that aren’t bothered at all may well be psychopaths. I have a very simple example of that. This comes from an evolutionary biologist’s work. If I ask you to think of the traits of a person who is evil, what are the three words you think of?

Uncaring. Cold. Calculating.

Give me three traits of a good person.

Kind, generous, empathetic.

OK. So actually your answers are consistent across age and across culture. What you see about them is that the good person cares about themselves primarily in relation to other people. Whereas the evil person cares first and only about themselves. We wouldn’t be a social species without that universal agreement.

But then society often seems set up to make us competitive, and we prize self-reliance and independence as qualities.

Right. But there is nothing anti-competition about this. Think of the Olympics, a great event based on competition that has the effect of bringing people together. Cooperation can equally be thought a universally good trait, but think of, say, how Wall Street bankers colluded at the expense of all of the rest of us. So those qualities in themselves are not good or bad.

Your research suggests loneliness as a major public health issue. How do you measure that and convince policymakers?

There are a handful of things. First, what is the prevalence? The incidence ranges from 20% to 40% of people; in our own research it comes in at around 26% of the population. That is one in four people who regularly feel lonely.

Then, what is the impact on health if you feel chronically lonely? When you allow for all the other factors, you find that chronic loneliness increases the odds of an early death by 20%. Which is about the same effect as obesity, though obesity does not make you as miserable as loneliness.

And then we studied how it makes you more vulnerable. What is happening in the brains of lonely people, at the endocrinological level, at the genetic level and what is that doing to immunity and resistance to disease, what genes are being turned on and turned off, when the brain goes into this self-preservation mode? For one thing, we found that loneliness decreases the effectiveness of sleep. You have sleep fragmentation and you always wake up tired. The cumulative wear and tear is greater if you are lonely than if you are not. You cannot make a direct line to heart disease or cancer, but you can certainly see the effects on the immune system.

What is the best way of mitigating that, of curing loneliness? You have been doing work with soldiers who recently came home...

Yes. My original focus wasn't on treatments, but because my funding came from the National Institutes of Health they were urging us: what are you going to do about this? So we looked at groups of soldiers who had come home, one of the most chronically lonely groups of people, and we went through all the available interventions.

Kindness is a great way to start to deal with loneliness. But the answer is not just be happy and treat everyone well

What worked best?

Well, there were four major types of treatment we studied. First: social engagement. You take lonely people and you just put them together. That doesn't work because it confuses the idea of loneliness with the fact of being alone.

The second is social skills: this is based on the idea that people are lonely because they have poor social skills. Actually, this is again false. Just about everybody has good social skills to begin with, but when you experience loneliness you focus more and more on yourself, your brain engages in self-preservation. You are not necessarily aware of that happening, but you become like the animal on the edge of the herd. If you feel vulnerable you often stop taking empathetic or compassionate positions and therefore you lose social skills.

The third treatment is social support. This suggests that lonely people will be "cured" just with the support of people around them. That is not the answer either because getting out of loneliness takes reciprocal

connections not one-directional ones. If it were just about support, people would not feel lonely in hospital because they are surrounded by it. But we know that people in hospital often feel very lonely.

The last treatment we looked at is changing how lonely people think about other people, having them understand what happens when their brain goes into this self-preservation mode. And those kinds of treatments actually seem to work, although they have been applied only a few times.

How do you go about that?

We retrained people, soldiers in this case, in reciprocity in communication: how do you read voices, how do you read eyes, how do you read posture. And then we taught them how that goes wrong. We talk to them about different ways of probing this in an objective fashion.

Because chronically lonely people are less good at spotting those signs because they are in preservation mode, concentrating on their own pain and anxiety?

Right. And that can lead them to be further ostracised. It is particularly prevalent in the army where connections are vital. There is a culture that can be very supportive but if you are weak, if you are considered unable to bear the load, consciously or subconsciously people want to remove you from the group. Those are the people who end up vulnerable, depressed, lonely and sometimes suicidal.

We have talked a lot about being lonely without defining the opposite state. What is the opposite of loneliness?

It's an interesting question. As I said, my original interest was about social connection, not social isolation, and I went through a lot of words trying to capture it and none of them quite did. Because each word seemed designed to capture a particular kind of social connection, not the whole thing. Finally I just started to say "normal".

How about the old-fashioned idea of kindness, or "being kind" as the opposite, which at its root suggests that idea of kinship and belonging that you have identified as the mark of healthy connection?

Yes and no. I think kindness is a great way to start to deal with loneliness. But the answer is not just be happy and treat everyone well, because chronically lonely people may need more than that. Actually I think loneliness is a bit like pain, hunger and thirst, and we don't have opposites for them either, except, pain-free, or not hungry, not thirsty. Loneliness is the same way. It protects our social body. Chronic loneliness is harmful; but short-term loneliness can be positive and necessary because it highlights the need for social connections.

https://www.theguardian.com/science/2016/feb/28/loneliness-is-like-an-iceberg-john-cacioppo-social-neuroscience-interview?CMP=share_btn_tw