# A Psychologist Explains the Limits of Human Compassion

Why do we ignore mass atrocities? It has to do with something called “psychic numbing.”

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*A Syrian Kurdish woman waits with her daughter near the Syria border at the southeastern town of Suruc in the Sanliurfa province after crossing the border between Syria and Turkey after several mortars hit both sides on October 2, 2014. BULENT KILIC/AFP/Getty Images*

(1)There are now 65.3 million people displaced from their homes worldwide, the United Nations reports. It’s an all-time high: likely the largest population of refugees and asylum seekers in human history.

(2)Think about that number: 65.3 million. Can you even imagine it? Like, really imagine it. When we see *one* life, we can imagine their hopes and pain. But 65 million? You can’t. That’s just an abstraction. There’s a hard limit to human compassion, and it’s one of the most powerful psychological forces shaping human events.

(3)I often report on political psychology. And in my conversations with scientists, I’ll often ask: “What research helps you understand what’s going on in the world?” The answer — whether it’s pegged to the refugee crisis abroad or the health care debate at home — very often involves Paul Slovic.

(4)Slovic is a psychologist at the University of Oregon, and for decades he’s been asking the question: Why does the world often ignore mass atrocities, mass suffering?

(5)Slovic’s work has shown that the human mind is not very good at thinking about, and empathizing with, millions or billions of individuals.

> *“THE VALUE OF A PERSON'S LIFE DECLINES PRECIPITOUSLY WITH NUMBER. IS THAT WHAT WE WANT?”*

(6)That’s why it’s not surprising six out of 10 Americans support a travel ban that, in part, bars refugees from entering America. That many lawmakers aren’t horrified by the possibility of booting tens of millions from health insurance. That the world looked on as millions died in war and genocide in Darfur. That we haven’t really grappled as a nation with the opioid epidemic, which killed 33,000 in 2015.

(7)It’s not surprising why political leaders often turn a blind eye toward refugees, or grow a callous heart when it comes to the hundreds of thousands of undocumented immigrants brought to the US as children.

(8)When numbers simply can’t convey the costs, there’s an infuriating paradox at play. Slovic calls it “psychic numbing.” As the number of victims in a tragedy increases, our empathy, our

willingness to help, reliably decreases. This happens even when the number of victims increases from one to two.

(9)Slovic's research explains why the world often fails to respond to large-scale human suffering, but it also can inform how journalists or advocates communicate problems. Recently, I spoke to Slovic by phone. We talked about why it's so easy for politicians to neglect the masses, the power of a single image to inspire change, and whether we can build machines more moral than we are.

(10)This conversation has been edited for length and clarity.

**"There is no constant value for a human life"**

(11)**Brian Resnick**

Where did this research begin?

(12)**Paul Slovic**

I've been doing research on risk for close to 60 years now. [In the 1970s] I was struck with Daniel Kahneman and Amos Tversky's work on prospect theory. It had something called a value function in it, which indicated how people value things as the amounts increase. Changes at small levels had a big impact, and then as the magnitudes got larger, it took more and more of a difference to be noticeable.

The difference between, say, $0 and $100 feels greater than the difference between $100 and $200. If you're talking about $5,800 or $5,900 — [both] seem the same, even though it's still $100 difference.

I talked with Tversky about that, and [wondered] if that applied to lives. We both figured it would — and that this is really a pretty scary kind of thing.

It means that there is no constant value for a human life, that the value of a single life diminishes against the backdrop of a larger tragedy.

(13)**Brian Resnick**

Is this what you call psychic numbing? The larger the number of people, the more apathy.

(14)**Paul Slovic**

Yes. And the opposite side of that is something we call the singularity effect, which is that an individual life is very valued. We all go to great lengths to protect a single individual or to rescue someone in distress, but then as the numbers increase, we don't respond proportionally to that.

People care about individuals. We see it over and over again: There's a child who needs an operation, his parents can't afford to pay for this operation, and there's a story in the newspaper. An outpouring of money, donations and support is often tremendous. We do care a lot about individuals. We don't scale that up, even when we're capable.

**We're compelled to help individuals. But the world's problems are too large to be solved one person at a time.**

(15)**Brian Resnick**

So there's a paradox here in the research that bothers me. We're numb to huge numbers of people. The solution is that we're receptive to individual stories.

But here's the thing: Problems on Earth are too large to solve one individual at a time.

(16)**Paul Slovic**

Individual stories and individual photographs can be effective for a while. They capture our attention — they get us to see the reality, to glimpse the reality at a scale we can understand and connect to emotionally. But then there has to be somewhere to go with it.

We did a study not too long ago; it was in *Proceedings of the National Academy of Sciences*, about Aylan [Kurdi], the little [drowned Syrian] boy on the beach. We analyzed the reaction to that photograph. Since 2011, the ... death toll in Syria was relentlessly climbing to hundreds of thousands. Suddenly we see this little boy washed up on the beach, and it woke people up.

People suddenly started to care about the Syrian war and the refugees, in ways that the statistics of hundreds of thousands of deaths had not led them to pay attention to. Then we were able to track that, and that lasted roughly a month.

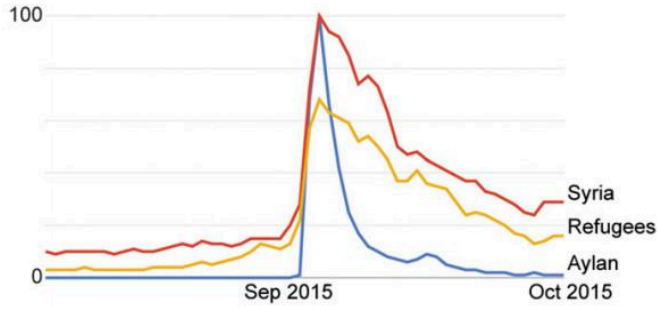


**Fig. 2.** Google Trend data on the relative popularity of search terms "Syria," "refugees," and "Aylan," August–September 2015. Note that Google Trends does not provide numbers of search requests; rather, the maximum number in the figure is scaled to 100, and the other values are proportional to that.

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(17)There were things people could do. In Sweden, where they had taken in 160,000 Syrian refugees, the Swedish Red Cross had created a fund to get money to help take care of this

mass influx. The day after that photograph appeared, donations went from $8,000 to $430,000 — because of the photograph. Then we could see over time how ... it stayed elevated for about a month or so, and then it went back [down].

(18)These dramatic stories of individuals or photographs give us a window of opportunity where we're suddenly awake and not numbed, and we want to do something. If there's something we can do, like donate to the Red Cross, people will do it. But then if there's nothing else they can do, then over time that gets turned off again.

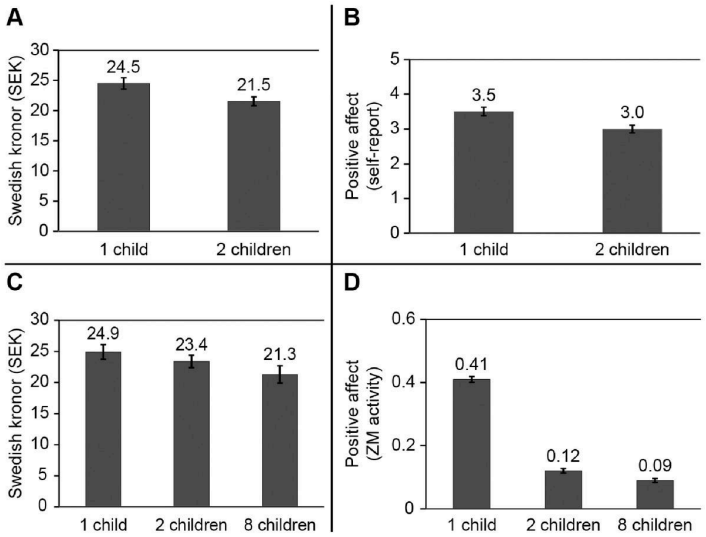
(19)These [individual] stories are important, and they can be very effective. But [only] if there's an action that can be taken, then, while you're engaged.

**Psychic numbing begins when the number of victims increases from one to two**

*Refugees and migrants massed onto an inflatable boat to reach Mytilene, northern island of Lesbos, after crossing the Aegean Sea from Turkey on February 17, 2016. RIS MESSINIS/AFP/Getty Images*

(20)**Brian Resnick**

I've read about some of your experiments and they are troubling — and enlightening. Like in this 2014 *PLOS One* paper, you see a decrease in empathy and donations to children when you go from one victim to two. Why does this happen?




(21)A 2014 study in *PLOS One* shows willingness to donate decreases when the number of children is increased from one to two.

(22)**Paul Slovic**

One has to do with attention.

We recently did an experiment (it's not published yet) asking people to think about an amount of money equivalent to $1, and to visualize an amount of American money amounting to $1.

We gave them a list of things: They could be visualizing 100 pennies, 10 dimes, four quarters, a silver dollar, or a dollar bill. We asked them, "What were you thinking? What were you visualizing?"

Overwhelmingly, what they were visualizing was a [single] dollar bill. They weren't even visualizing a multiple, four quarters, or anything like that; it was the one.

The single object is easier to visualize and to connect to.

You have to attend to the person or the group of people to make an emotional connection with them. And you just can't attend as closely to two people as to one. It's harder to think about the many.

(23)**Brian Resnick**

So we're confused by large numbers?

(24)**Paul Slovic**

This is really more of a gut-level reaction. Because if you were thinking carefully, you might say, "Well, a life is a life. It shouldn't diminish in a bigger problem."

The feeling system doesn't really add; it can't multiply, it doesn't handle numbers very well. It's maximized at the number one: "Protect myself. Protect the person in front of me." People who are like us, near us, near in time, things like that, we get a strong, emotional response when they're in danger.

**Three factors keep people and politicians from intervening in humanitarian crises**

*Thousands of migrants marched across the border from Croatia into Slovenia as authorities intensified their efforts to attempt to cope with Europe's largest migration of people since World War II. Jeff J Mitchell/Getty Images*

(25)**Brian Resnick**

Is psychic numbing the whole story? Why else do publicized tragedies fail to rally action?

(26)**Paul Slovic**

We found three psychological obstacles that inhibit response to major crises.

The first is the numbing response — the loss of sensitivity with the large numbers.

The second is a false sense of inefficacy.

That’s [the feeling] what you're doing just won't matter. That is influenced by the fact that you're only helping a portion of the problem. There are many people that you're not helping, and that sends bad feelings. The warm glow you get from helping gets hijacked by the negative elements in the picture.

We have an experiment of helping a starving child. A certain percentage of people help [by donating money to the kid]. Then we have another condition with a different group, same child, same situation, except we put the numbers of the statistics of starvation next to her picture, and the donations dropped in half.

We call it pseudo-inefficacy because it happens to people who actually can make a difference. They don't act because it doesn't feel worthwhile, or they don't think it's worthwhile.

The third is a more analytic problem that we believe [affects] decision-making. We call it the “prominence effect.”

(27)**Brian Resnick**

What’s the “prominence effect”?

(28)**Paul Slovic**

It stems from work I did a long time ago; actually the first data was collected in 1961. When people are making a decision between two courses of action ... people often used a simple rule to choose.

One example was a gift for a friend: It's a bundle of cash and a coupon.

Gift [bundle] A has more cash and less of a coupon value. But [bundle] B has a much larger coupon and less cash. The gifts overall were equal. But now you have to choose.

People don't flip a coin in those situations. They choose systematically. Close to 85 percent or 90 percent of the people would resolve that tough choice by going with the gift that had more cash.

There's a bias in decision-making toward the intrinsically more defensible. If you have to defend your choice, you can't go wrong choosing a gift that has more cash. If you do it with the coupon, you say, "Well, are they really going to get the money’s worth?"

You can think of reasons why it's not as defensible.

(29)**Brian Resnick**

Is that what happens when politicians turn a blind eye to refugees or humanitarian crises around the world? That it just seems more defensible to ban them?

(30)**Paul Slovic**

Our leaders, they see what's happening. They get the vivid pictures, the individual stories. They know this is horrible, and yet they still often choose not to act.

We see that, for example, with the refugee situation.

Last fall before the administration shifted, I remember some quotes from Mike Pence, who was governor of Indiana, and Dan Coats [who was then a U.S. senator]. They basically said, "We're not going to let any refugees at all into Indiana unless we can be 100 percent sure that they are not going to cause us harm." They can get away with it because everyone says, "Yeah, of course we don't want to let terrorists into our communities."

Even though you say it's important to attend to the humanitarian catastrophes, when it comes down to choice, the choice to protect the homeland is more defensible.

**We might be able to build machines more moral than humans**

(31)**Brian Resnick**

Should we not blame people for apathy, if it’s in human nature?

(32)**Paul Slovic**

Partly. We shouldn't be surprised.

That doesn't mean we should accept it. That doesn't mean it's right. It means we need not rely on our feelings, which we don't get, but we need to think in a more reasoned, careful, deliberate way about the realities beneath the data that we're getting. Then we need to design laws and institutions and procedures that are based on deliberative thinking, not based on our feelings.

(33)**Brian Resnick**

How so?

(34)**Paul Slovic**

It's like the income tax system, we don't leave it to individuals’ feelings of how much they think they should pay to the government for the services they receive. We have an analytic procedure that is thought through to a great extent and very detailed, which specifies to the penny how much you owe the state. It's backed up by the force of law.

For better or for worse, it's an analytic system. We don't leave it to people's feelings of loyalty and obligation; we couldn't. I think it's the same thing with these moral crises — when you think carefully and you realize the scale, you have to create laws and institutions that are not sensitive to the feelings of the moment.

(35)**Brian Resnick**

I can imagine a future — this is getting more sci-fi — where we automate compassion. When we have a moment of slow thinking, we can program a machine to direct the response to horrible things.

(36)**Paul Slovic**

A lot of people would be repulsed by the thought of turning morality to machines, but if you think of the fact that, in many ways, our moral intuitions really lead us to do the wrong thing, maybe [artificial] morality might not always be that bad.

What should be the value of a life? If we find that humans are inappropriately devaluing life, maybe these program values would be better.

(37)**Brian Resnick**

That's such an interesting idea. If we can program some machine to be moral, it could be more moral than we are.

(38)**Paul Slovic**

Yeah, because we're not as moral as we'd like to be.

**“Even partial solutions save whole lives”**

Refugees arrive on the shores of the Greek island of Lesbos after crossing the Aegean Sea from Turkey on an inflatable boat on October 2, 2015, near the village of Skala Sikaminias, Greece. Matej Divizna/Getty Images

(39)**Brian Resnick**

How can this research inform how journalists or advocates work?

(40)**Paul Slovic**

It's not enough to break through the numbing. You have to give people somewhere to go. You have to then have some action options that they can take.

The second is [to] fight against this false inefficacy feeling. Even partial solutions can save whole lives. Sure, it doesn't feel as good. Don't be misled by the fact that you can't do it all.

In one of our experiments, we showed that people were less likely to do something that would save 4,500 lives in a refugee camp if that camp had 250,000 people than if it had 11,000 people.

It didn't feel as good to save those lives, 4,500 out of 250,000. That's where you say, "Well, wait a minute. Even partial solutions save whole lives."

Another thing is we're looking toward the education of young people. You teach kids not just to write, read, and write bigger and bigger numbers. You get them to try to think about the reality that these numbers represent.

We're taught as kids to read and write big numbers, but we're not taught to think about the reality beneath the surface of those numbers.

(41)**Brian Resnick**

Can the problem of psychic numbing really be solved? Are you pessimistic on that question?

(42)**Paul Slovic**

Look at the problems we have in this world. The scale of various kinds of problems is so vast. Now we have 60 million refugees we're creating. And we have outbreaks of violence, atrocities being committed on innocent people all over the world. After the Holocaust, we vowed never again would we let this happen. And while the Holocaust hasn't been repeated in that form, we have dozens and dozens and dozens of continuing mass atrocities that we underreact to.

We're not reacting to [the threat of climate change]. And there's so many different problems of large scale that we need to be working harder to combat. I think that is pessimistic.

I used to think that every time I did a study that demonstrated one of these depressing flaws of the human mind, I had to then solve the problem in the discussion section. My son said, "Dad, the first step, you don't have to solve every problem that you point to; the first step is to create a wider awareness of the problem, to get more people to recognize that we have to be on guard against numbing and all those feelings of inefficacy and so forth."

If I can't solve it, I should get more people involved [in] trying to solve it.

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***Correction:*** *This article originally stated Dan Coats was the attorney general of Indiana, serving under Gov. Mike Pence. In fact, Coats was a US senator during the Pence administration.*

***About the author:*** *Brian Resnick is a science reporter at Vox.com, covering social and behavioral sciences, space, medicine, the environment, and anything that makes you think, "whoa, that's cool." He is the co-creator of Unexplainable, a Vox podcast about unanswered questions in science. He serves as the show's senior reporter, shaping the editorial direction of the series. Before Vox, he was a staff correspondent at National Journal.*

***Dr. Paul Slovic:*** *Professor of Psychology at the University of Oregon.*