**Original: https://sudaca.pe/noticia/opinion/las-estaciones-y-la-ivermectina**

**Google translate:**

We have all faced situations in which, after making a good point in an argument, our interlocutor refuses to refute us and responds with an obstinate: "Well, I am free to think what I want." While this answer is correct from a legal point of view, I would like to focus on the moral aspect: Is it morally correct to think anything? Or rather, is it morally correct to construct our beliefs in any way?

Many years ago, teaching a workshop, I asked a group of high school teachers what they believed was the cause of the seasons of the year. The vast majority responded that they were due to the fact that the Earth's orbit around the Sun is elliptical (an ellipse is something like a flattened circle): when the Earth is closest to the Sun it is summer, and when it is further away it is winter. I asked them to do the corresponding calculations, and with that, everyone could see that the "flattening" of the ellipse is minimal, that is to say that the orbit is practically circular. Therefore, the differences in the distance from the Earth to the Sun throughout the year do not explain the changes in temperature. To my surprise, many rushed to show me their textbooks, saying: "But look Manuel, here you can see that the orbit is very elliptical!" I pointed out to them that, if their explanation were correct, the temperature around the Earth would be the same throughout the year: winter all over the planet when the Earth is further from the Sun, and summer when it is closer, which contradicts the experience of having different temperatures in the two hemispheres. This argument changed many of their minds, but a small group did not want to concede. One of them even stood up and said, “It can't be! I've always known that the seasons are due to the orbit being elliptical!”

In these types of situations, the moral problem is neither the lack of knowledge nor the inability to analyze the possible implications of their answers, but rather the unwillingness to accept an error, the disregard for evidence, and the deliberate refusal to understand a simple argument. We may not be able to judge others by what they believe, but we can certainly judge them by how they choose to form their beliefs. In particular, we can judge a person by how closely they stick to his ideas in the face of conflicting evidence.

Let's think about our current situation in the face of the pandemic. Like never before, almost unintentionally, we have been involved in fascinating discussions about how to weigh scientific evidence with the most unexpected people. However, perhaps because we are not used to navigating scientific uncertainty, many of these discussions end abruptly with a “well, what is wrong with what I believe? It's my personal decision”. But, is it?

Take the case of ivermectin consumption. Many of those who take it maintain that it is their problem and that it does not affect anyone. But how did they arrive at that decision? Do they really think it works, or do they take it 'just in case' it works? Do they think that if a person takes ivermectin and recovers, that is sufficient evidence for the effectiveness of this drug (despite the high rate of people recovering from other factors)? Are they based on the results of a study of cultured cells, in which the concentration of ivermectin that had a retroviral effect was equivalent to a dose 30 times higher than the consumption suitable for humans? Do they do it because it is the predominant opinion in their WhatsApp group? Or do they think that there is a worldwide conspiracy against ivermectin, despite the fact that MERCK, one of the most important manufacturers of this drug worldwide, has advised that it not be used to treat Covid-19? The same people who use faulty reasoning to make the decision to consume ivermectin will use similar mechanisms to form other types of ideas and attitudes that are directly relevant to everyone: they will decide whether to accept or reject the vaccine, whether to use a mask or not, whether or not they will visit their relatives, etc. Their decision to take ivermectin is not private. Whether they are teachers, political authorities, or ordinary citizens, sooner or later it will affect us all.

When someone wants to end an argument by saying that they are 'free to think what they want', you can reply quoting what the English mathematician and philosopher William K. Clifford said almost 150 years ago in his essay *The Ethics of Belief*: “No real belief, however trifling and fragmentary it may seem, is ever truly insignificant; it prepares us to receive more of its like, confirms those which resembled it before, and weakens others; and so gradually it lays a stealthy train in our inmost thoughts, which may some day explode into overt action, and leave its stamp upon our character forever”

And if in the heat of the moment you do not remember Clifford's quote, you can simply tell her what one of the professors shouted to the one who stood up: “Give me a break! What do you think of this argument? "

(Note to the reader: the explanation of the seasons has to do with the angle that the earth's axis makes with the plane of translation of the earth).

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