



## A Designer of Robots Explains His Faith

Professor Massimo Tistarelli is a scientist at the University of Sassari in Italy. He is an associate editor of three international science magazines and has coauthored more than a hundred scientific papers. He studies how humans recognize faces and do such seemingly simple things as catching a ball. He then designs visual systems for robots—systems that imitate what we do. *Awake!* asked him about his faith and his work as a scientist.

### What is your religious background?

My parents were nonpracticing Catholics. As a young man, I leaned toward atheism. I was taught that life originated by means of evolution, and I accepted that as fact. Yet, even though I did not believe in a personal Creator, I felt that there must be something high-

er than us. In order to find out what, I explored Buddhism, Hinduism, and Taoism, but I found their teachings to be unsatisfactory.

### What led to your interest in science?

From childhood, I was fascinated with machines. I even used to take my electric toys

apart and reassemble them. And I would ply my father, a telecommunications engineer, with endless questions about how radios and telephones work.

### What has your career as a scientist involved?

I studied electronic engineering at the University of Genoa, and then I did doctoral research in robot design. I specialized in studying the human visual system and in devising ways to imitate it for the design of robots.

### Why did our visual system interest you?

It is incredibly sophisticated, encompassing much more than the eyes—it even includes

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the means to interpret what we see. For example, consider what happens when you catch a ball. As you run to make the catch, the lens of your eye focuses an image of the ball onto your retina. That image will move across your retina in a way that depends on the movement of both the ball and your eye. Normally, of course, you keep your eye fixed on the ball. Its image then becomes stationary on your retina while the background “moves.”

At the same time, your visual system calculates the speed of the ball and its trajectory. Amazingly, the calculations start right there in the retina as your eye estimates the movement of the ball in relation to its background. Your optic nerve then transmits the impulses formed by the retina to your brain, which further analyzes the information and directs you to intercept the ball. The whole process is breathtaking in its complexity.

### What persuaded you to believe in a Creator?

In 1990, I spent a few months in Dublin, Ireland, doing research at Trinity College. As I was traveling home with my wife, Barbara, we considered the future of our children. We also decided to visit my sister who was one of Jehovah’s Witnesses. My sister gave me a

copy of the book *Life—How Did It Get Here? By Evolution or by Creation?* published by the Witnesses. The careful research that had gone into this work impressed me. It then dawned on me that I had accepted evolution without really questioning it. For example, I had assumed that evolution was well supported by the fossil record. But it is not. Indeed, the more I examined evolution, the more I became convinced that the theory is more bluster than fact.

Then I thought about my work with robots. Whose designs was I imitating? I could never design a robot capable of catching a ball as we can. A robot can be programmed to catch a ball, but only in precisely controlled conditions. It cannot do so in circumstances for which it has not been programmed. Our ability to learn is vastly superior to that of a machine—and mere machines have makers! This fact is just one of many that led me to conclude that we must have had a Designer.

### Why did you become one of Jehovah’s Witnesses?

In part, it was because Barbara and I liked their thorough study methods. I was

especially impressed with the research that goes into their publications. Solid research appeals to people like me, who want to probe into the details of things. For example, I became deeply interested in the many prophecies, or predictions, in the Bible. My study of those convinced me that the Bible really is from God. In 1992, Barbara and I were baptized as Jehovah’s Witnesses.

### Has your study of science weakened your faith?

On the contrary, science has strengthened my faith. For example, consider how we recognize faces. A baby can do this within hours after birth. You and I can instantly recognize someone we know, even if he is in a crowd. We may even discern his emotional state. Yet, we may be completely unaware that this recognition involves the processing of a phenomenal amount of information at an incredible speed.

Yes, I am fully convinced that our visual system is a precious gift from Jehovah God. His gifts, which include the Bible, move me to thank him and to talk about him to others. After all, my sense of justice tells me that he should get the credit for his productions. ■