

# I Play, and so I Am

**Prof. Włodzimierz Zawadzki**

Institute of Physics, Polish Academy of Sciences



*Science is not a zero-sum game, as my winning does not automatically mean that my rival loses.*

Our lives are filled with games of various sorts. International and local, political and sports-related. The stakes might be high or merely symbolic. Some games are comprehensible to us, others not. Some we participate in, many others we just observe. Some we treat seriously, others are not important. But one thing is certain: everyone plays some game or another.

Sports teach us how to lose. Children cannot handle defeat, they get upset and cry. Some people never manage to grow out of that. Rivalries can teach us a lot about other people. I once knew an elegant woman, very sweet in social life, who would quarrel over every ball in tennis. I also once watched a foreign academician who, facing a tough position in chess, knocked all the pieces over. Games teach us to try our very hardest, then smile after losing, shake the winner's hand, and not bear a grudge. They also teach us to win without a condescending smile or patronizingly patting our opponent on the back. In other words, games teach us how to keep a sense of perspective about both the game and ourselves. They also teach us how to persevere: to "play for keeps" as the American phrase goes.

I myself have played many games, though I have not gotten much into card-playing. Probably I was afraid of losing, although they say that whoever is unlucky at cards is lucky at love. On the other hand, my uncle used to say that one had to win at cards to be able to afford love. In any event, I thank my lucky stars that computer games did not exist back when I was an adolescent.

Games have changed tremendously just over my lifetime. With global media, by just pressing a button one can watch a Copa America soccer match taking place on the other side of the world. Via the TV screen we participate, if only passively, in a significantly larger number of games: in military and political maneuvers, in gambling and sports. Games are now played for much higher stakes, which makes them often ruthless. No one is surprised when a contender cheats. Ever since Maradona sent a soccer ball into England's net by the "hand of God," no referee will ever dare to ask a player on the field whether he or she had played fairly, simply because no one will ever fess up. There is a demand for victory at any price, and the winner simply takes it all. Only winners get shown on television, losers do not count, and the Olympic motto that the

important thing is to participate certainly sounds naïve today. Rules and styles have changed over time, with new running surfaces used for races, new point-scoring rules for ping-pong and volleyball, new styles for high-jumps and ski jumping. The direction is clear: "faster, higher, farther," but most importantly, it all needs to make for an ever-more-riveting show.

Are we participating in a game when we do science? I suppose so. Actually, in many games simultaneously. When there's a clear objective, we are often struggling to beat others to the finish line. But we also often compete when choosing the right objective. What topics are worth pursuing, still winnable? It's like choosing a sporting discipline. In science, like in sports, the first one to the finish line takes it all. There is fame, glory, and money at stake, like in classical games. There are winners and losers in science, although it is not as evident as in, say, boxing. Our "rings" and "playing fields" are scientific journals and conferences, there are individual rivalries and team competitions. But science is not a zero-sum game, as my winning does not automatically mean that my rival has to lose out. One might lose today, but win a year from now. And more players are constantly joining. A large Chinese team recently came into the fray and soon the Indians and Brazilians will be making big waves, so it is ever-harder to stay at the head of the pack. In all our day-to-day efforts, we sometimes forget about all the beauty and significance of our game.

There is also the problem of when to call it quits. It is well known that it is much easier to get into a game than to get out. In time, every game gives rise to a whole surrounding world, with outstanding players, fans, fascinations, novelty items, stories. Soccer fans will remember who kicked an important goal 30 years ago; a physicist will forever recall how he managed to solve a difficult problem. In each case, the game mediates between the "player" and a certain world, defining his or her status. When I decide to exit, I leave behind not only that world, but also part of myself. Playing made me someone, taught me something, it is hard to give that up.

In science, there are some players who easily jump from one topic to another, and others who keep pounding deeper and deeper at the same topic. It is a question of temperament which strategy works best. After all, the most important thing is to participate. For, as long as I play, I am. ■