

What do the fundamental laws of nature, human perception, the music of J.S. Bach, and the selection of mates have in common? They are all characterized by certain symmetries. Symmetry is the concept that bridges the gap between physics and psychology, between science and art. Yet the "language" of symmetry - group theory - emerged from a most unlikely source: An algebraic equation that couldn't be solved. I will tell the story of symmetry, of group theory, and of their applications to phenomena ranging from the way we perceive the world around us to the way we select our mates. I will also follow the sad lives of two mathematical prodigies who opened the door for these concepts, but did not live to see the impact of their creativity.