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Superconductivity: A Continuous Surprise or “How I Learned to Love the Surprises”

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When I was invited to give this talk, I thought I would talk about new materials, or new opportunities, or the electron-phonon interaction, or non electron phonon interactions. Then when I looked at the speakers in this symposium and the subjects that they were scheduled to talk about, I realized that they were better equipped to talk individually about each of these subjects than I was, and it was my role to introduce the subject and give a perspective on the future of research and applications in superconductivity. My experience over the past decades has been that it is very dangerous to make predictions in this field. There are many examples of our distinguished colleagues who have engaged in this practice only to be proven wrong by surprise after surprise. Fortunately, this has not harmed their reputations or their courage to continue to make predictions. In this talk I will reflect on my personal experience over several decades of research in superconductivity and how my own thinking has changed. Hopefully, I will

1. Transmit a flavor of this field and stimulate other younger investigators to be adventuresome
2. Prepare the audience for the talks that follow
3. Motivate the following speakers to reveal their own predictions and surprises.