It's Not Rocket Science; It's Harder

James C. Peterson

When Paul Henrickson retired, he reflected that he had two careers. The first was as an aerospace engineer with NASA; the second, as the chaplain at Roanoke College. Of the two, he was sure from experience that working with people was much more difficult than rocket science. Rocket science is a remarkable accomplishment that requires great precision in directing immense forces of heat and pressure, yet he found people more complex. We human beings are not simple, as will be seen in this issue's articles on addiction.

We all live simultaneously at multiple different levels. Picture a physicist studying a particular interaction at the subatomic particle level, seeking to explain it with "a theory of everything." Yet a chemist could see the same instance and note that it is occurring within a molecule of glucose. The molecular level of complexity is just as real as what is happening between the particles, but not described solely by particle interactions. Then a biochemist notes that this glucose is part of an ATP reaction that is releasing energy. The arriving physiologist notes that the energy is contracting a muscle, which the anatomist notes is attached to a vocal cord. The contraction of the muscle in this case is at the direction of a brain signal, as noted by a neurologist. Specifically, someone is singing, as the musician describes. In fact, she is singing in a chorus for pay. Is it always about money? No, she could earn more in another chorus. "She has chosen this one to be with her friends," says the sociologist. "But, ah," says the theologian, "do you hear that they are singing the 'Hallelujah' chorus from Handel's *Messiah*?" This subatomic particle interaction is embedded in an act of worship.

When trying to understand the perceptions and actions of a human being, whether it be the event above or, more generally, addictions, no one level of approach will give a full account. Describing the human experience at any one level may be insightful about that aspect, but it remains severely incomplete. Human action is too ambiguous and complex to be captured by what Donald MacKay called "nothing-buttery." Human beings are far more than "nothing but" any one particular aspect of their existence. They are more than atoms, or chemicals, or genes, or cells, or environment, or animals, or individuals. The simpler components do not begin to explain all that is happening at higher levels of complexity. Examining only one aspect at a time can be an insightful exercise, but such analysis at any specific level, is quite different from capturing a whole that is more than its parts. Chemistry is not merely particle physics. Physiology is more than biochemistry. Music is not just physiology. Theology is not just sociology. At each level of greater complexity, there is the potential for an emergent phenomenon not described completely by its constituent parts.

To begin to scratch the surface toward understanding the wrenching crisis of addiction, *PSCF* has an unusual capacity to approach what is happening at many of the multiple levels of human life that addiction entangles. Judith Toronchuk leads this issue delineating some of the complex interactions of neurology in addiction. Robin Rylaarsdam guides us through the genetic component. Kent Dunnington finds insight in the effective twelve-step movements as a philosopher considering personality theory. Janet Warren taps theology to find parallels for discernment and treatment, between addiction and sin. And Daniel Mallinson brings to bear political science to advocate public policy.

Thanks to each scholar, we are better informed to understand and deal with this challenging scourge of addiction. Thanks as well to the authors of a wide-ranging set of book reviews, and to letters from Randy Isaac and Walter Bradley. Their letter exchange, concerning the previous issue of *PSCF*, plays out more of how God is revealed in creation.

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