Understanding Health from a Complex Systems Perspective

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Physicians often use theory to inform medical practice. The current bio-psycho-social model of health may be advanced still further with theoretical rigour. Traditional fields of thermodynamics and newer fields of nonlinear dynamics including chaos theory and complex systems science can inform our understanding of the complexity of human health, illness, and disease. Commonly accepted aspects of human health may be projected as probabilities over time creating curves of human health potential. Maximum health may be represented by maximum complexity. Complexity’s relationship to entropy and energy can produce a complex surface that better models the human experience of health and illness from birth to death. Such a potential health trajectory uniting complexity and entropy expands upon earlier theories of health while allowing for unusual predictions and the novel opportunity to test and validate this model of human health.