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Matthew Macauley* (mmacaul@clermson.edu), Department of Mathematical Sciences, O-325 Martin Hall, Clemson University, Clemson, SC 29634-0975, and **Brian Rabern** and **Landon Rabern**. *Semantic paradoxes and graph dynamical systems*. Preliminary report.

We present a mathematical foundation to study semantic paradoxes using graph theory and local binary functions. In this setting, a paradox is represented by a particular graph dynamical system that has no fixed points. Most work on the nature of paradox has used tools from symbolic logic, whereas our goal is to completely characterize paradox from purely a graph-theoretic point of view. Our work to tackle this problem draws from the rich structure of graph theory, real analysis, and algebraic geometry, and in this talk, we will present some of our results and outline some future goals. (Received September 14, 2008)