

Some-thing from No-thing: G. Spencer-Brown's Laws of Form

Robin Robertson¹

Abstract: G. Spencer-Brown's *Laws of Form* is summarized and the philosophical implications examined. *Laws of Form* is a mathematical system which deals with the emergence of anything out of the void. It traces how a single distinction in a void leads to the creation of *space*, where space is considered at its most primitive, without dimension. This in turn leads to two seemingly self-evident "laws". With those laws taken as axioms, first an arithmetic is developed, then an algebra based on the arithmetic. The algebra is formally equivalent to Boolean algebra, though it satisfies all 2-valued systems. By following the implications of the algebra to its logical conclusions, self-reference emerges within the system in the guise of re-entry into the system. Spencer-Brown interprets this re-entry as creating time in much the same way in which distinction created space. Finally the paper considers the question of self-reference as seen in Francisco Varela's *Principles of Biological Autonomy*, which extended Spencer-Brown's *Laws of Form* to a 3-valued system.

[1] 846 N. Monterey St. Alhambra, CA 91801.1573 e-mail: rrobertson@worldnet.att.net