

Whether or not quantum physics is the last word in describing nature, it does seem that whatever model is used, there must be some degree of freedom, some apparent elements of chance in that description. For only in this way can the hand of God move invisibly to forward mans spiritual development. Therefore we conclude that probability models have worth and may actually be better reflections of nature than their deterministic counterparts.■

COMMUNICATION

To the Editor:

Concerning spiritual intervention in natural events, in response to Dr. Ebert's article in the January-March issue:

Most physical laws either can be derived as limiting cases of, or are themselves, quantum theories. Physicists expect that all physical laws will eventually be based on quantum theory, and thus that they are fundamentally probabilistic. This implies that some courses of events are more likely than others, but none is absolutely physically impossible. But what does it mean for one thing to be more likely than another? Physicists set up experiments to measure the outcomes of many events which all have the same initial conditions as nearly as possible. Outcomes which are more probable usually occur more frequently. The more events are measured, the closer the relative frequencies of outcomes will probably be to their probabilities. But there is always the possibility of exceptions.

To me, probability is a very elusive concept. I cannot even define it by example without circular reference. There is a rigorous, elegant, and useful mathematics of probability, but it does not define the fundamental concept of likelihood. This concept has something to do with frequency of outcomes of similar events, but it also has to do with human expectations. When someone assigns a value of probability to something, he may be using the mathematical laws of probability, but he is applying them to some other assumptions, such as, perhaps, that the dice are not loaded, etc. When someone says that a thing will probably happen, it is usually something that will happen all the way or not at all, and the statement of probability

does not describe the event as much as the state of mind of the person.

So what do physical laws imply about what will actually happen? That something not too improbable will happen? But how improbable is too improbable? There is no natural line between what is according to physical laws and what is not. On the other hand, I believe there is a spiritual criterion. The Writings say that the laws of nature are also the laws of Divine Providence. God will not allow anything to happen that appears so improbable that it would take away man's freedom. I believe the answer to the question, "How improbable is impossible?" depends on the spiritual state of the observer.

Now what determines what will happen among those things that are possible? The answer is spiritual influx. Everything in the natural world has a cause in the spiritual world. Every event is an act of God or of some angel, spirit, man, or devil. Spirits can intervene in natural events (in fact I believe everything they do has some effect in the natural world), but never so far as to violate a physical law, for by definition to violate a physical law is to violate a law of the Divine Providence.

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ABBREVIATED TITLES OF A SELECTION FROM SWEDENBORG'S WORKS

In the tabulation below, titles marked with an asterisk were published posthumously.

Theological Works

Abom.—Abomination of Desolation*	Idea—Angelic Idea concerning Creation
AC—Arcana Coelestia	ISB—Intercourse between Soul and Body
Adv.—Adversaria *	Inv.—Invitation to the New Church*
AE—Apocalypse Explained*	Jus.—Concerning Justification and Good Works*
AR—Apocalypse Revealed	Life—Doctrine of Life
Ath.—Athanasian Creed*	LJ—Last Judgment
BE—Brief Exposition	LJ post—Last Judgment (posthumous)*
Calvin—Conversations with Calvin*	Lord—Doctrine of the Lord
Can.—Canons*	Love—Divine Love*
Char.—Doctrine of Charity*	Mar.—On Marriage*
CL—Conjugal Love	PP—Prophets and Psalms*
CLJ—Continuation of the Last Judgment	Q—Nine Questions*
Conv. Ang.—Conversations with Angels*	SC—Scriptural Confirmations*
Coro.—Coronis*	SD—Spiritual Diary*
DLW—Divine Love and Wisdom	SD min.—Spiritual Diary Minor*
Dom.—De Domino*	SS—Doctrine of the Sacred Scripture
DP—Divine Providence	TCR—True Christian Religion
Ecc. Hist.—Ecclesiastical History of the New Church*	Verbo—De Verbo*
EU—Earths in the Universe	WE—Word Explained (Adversaria)*
F—Doctrine of Faith	WH—White Horse
5 Mem.—Five Memorable Relations*	Wis.—Divine Wisdom*
HD—New Jerusalem and its Heavenly Doctrine	
HH—Heaven and Hell	
Hist. Crea.—History of Creation*	

Philosophical Works

AK—Animal Kingdom	Observations
BR.—The Brain*	Ont.—Ontology *
Cer.—The Cerebrum*	OPS—Origin and Propagation of the Soul*
Chem.—Chemistry*	Pr.—Principia
EAK I, II—Economy of the Animal Kingdom	Psych. Trans.—Psychological Transactions*
Fib.—The Fibre (EAK III)	R. Psych.—Rational Psychology*
Gen.—Generation *	Sens.—The Five Senses*
Inf.—The Infinite	Trem.—Tremulation *
JD—Journal of Dreams*	WLG—Worship and Love of God
L Pr.—Lesser Principia*	
Misc. Obs.—Miscellaneous	

For lists of the Theological Works see: Tafel's *Documents*, Vol. II, pp. 950-1023; Potts' *Concordance*, Introduction; and General Church *Liturgy*, 5th ed., pp. 236-238. For lists of Swedenborg's earlier philosophical and other works see: Tafel's *Documents*, Vol. II, pp. 884-949; and *A Classified List* by the Rt. Rev. Alfred Acton.