Abstract Submitted
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Two Theories Are Better Than One ROBERT JONES, Emporia State University — All knowledge is of an approximate character (B. Russell, Human Knowledge, 1948, pg 497 and 507). Our formalisms abstract, idealize, and simplify (R. L. Epstein, Propositional Logics, 2001, Ch XI and E. Bender, An Intro. to Math. Modeling, 1978, pg v and 2). Each formalism is an idealization, often times approximating in its own DIFFERENT ways, each offering somewhat different coverage of the domain. Having MULTIPLE overlaping theories of a knowledge domain is then better than having just one theory (R. Jones, APS general meeting, April 2004). Theories are not unique (T. M. Mitchell, Machine Learning, 1997, pg 65-66 and Cooper, Machine Learning, vol. 9, 1992, pg 319). In the future every field will possess multiple theories of its domain and scientific work and engineering will be performed based on the ensemble predictions of ALL of these. In some cases the theories may be quite divergent, differing greatly one from the other. This idea can be considered an extension of Bohr's notion of complementarity, "...different experimental arrangements...described by different physical concepts...together and only together exhaust the definable information we can obtain about the object." (H. J. Folse, The Philosophy of Neils Bohr, 1985, pg 238)

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