

HOW A RADICAL IDEA BECOMES A NEW ORTHODOXY (The Nine Stages)

- Stage 1. (Long-unsolved) problems without solutions; also solutions looking for a problem
- Stage 2. Breakthrough
- Stage 3. Spreading the word
- a scientist must be a publicist and an entrepreneur (show biz)
 - the important process of proselytization
 - extraordinary missionary effort by the first few converts to the new view
- Stage 4(a). Excommunication of the apostate
- missionaries cannot afford equal time for opposing views
 - active proponents become an exclusive club
 - "what I tell you three times is true!"
 - Repetition is the mother of acceptance -- with the help of the press, one must keep saying the same thing over and over ... and over again
- Stage 4(b). Reaction is inevitably on the horizon
- knee-jerk rejection and healthy skepticism
- Stage 5. Mobilization of resources
- Stage 6. A new terminology is invented
- Stage 7. All sides start changing the terms of discussion
- Stage 8. The silly season
- claim of earlier priority
 - proposal of even more far-out ideas
- Stage 9. Calmer heads prevail
- original idea and its later manifestations are absorbed into the mainstream
 - about-face of critics who now use its language freely because enough amendments, etc., to give room for a wide range of people to enlist
- RESULT --> Paradigm shift
- incorporation of a major new idea into the fabric of an area of study is that the old order is destabilized
 - What was monolithic admits a diversity of views

(Based on *Marginalia -- Anatomy of the Extinction Debate*, Keith Stewart Thomson, **American Scientist**, January-February 1988, pages 59-61)