Metaphor in Physics and Psychoanalysis
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The Cosmic Code: Quantum Physics as the Language of Nature
• From the clockwork universe of classical physics
• To the God who plays dice

Inside Lives: Psychoanalysis and the Growth of the Personality
• From Freud’s mechanical/archaeological drives and layers of mind
• To dynamic/organic view of internal object relations - inside lives
Metaphor in Quantum Physics

Fundamentals of the Transition

*Classical Physics*  
• Continuous – Wave  
• Deterministic – Clock  
• Independent of observer
  - Einstein on the beach

*Quantum Physics*  
• Quantised – Particle  
• Probabilistic – Dice  
• Observer created reality  
  - Schrodinger’s Cat

Quantum physics denies the objectivity and determinism of the world! Werner Heisenberg – QM brings us face to face with the question of the possibility of understanding reality by mental processes!
Metaphor in Psychoanalysis

• Meaning of Growth – From narcissism to concern
  - Weaning / Oedipus: Internal capacity to be alone/face reality
  - Narcissus as failure of development: dying of sadness

• Facilitating Environment – Container/Contained
  • Internal objects / Inside lives
  • States of mind – infancy to old age present simultaneously

• Centrality of Relationships – Internal and External
  • Shallow personality v Depth of character
  • Defensive/Cold/Closed personality v At Ease/Warm/Open personality
Aims of Paper

• Explore the role of metaphor in transformations within two disciplines of foundational importance to modernity

• Physics is about the material world (scientific perspective); Psychoanalysis about thinking and emotion (psychological perspective). Both perspectives are relevant to sustainability transitions

• Both are extremely practical – QM underpins modern technology; human emotion and cognition will determine our future = Ideas Matter

• Identify specific metaphors of transformational change in both disciplines (relevant to sustainability transitions) as part of the ‘toolkit’ being assembled in the wider project