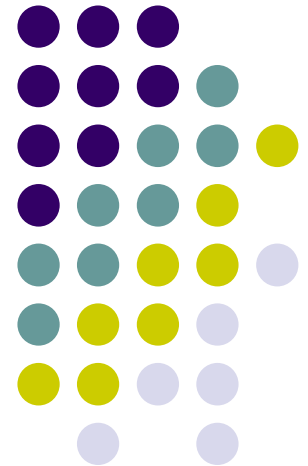
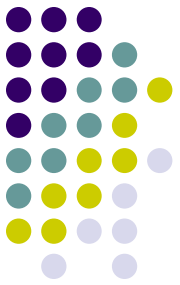


# Creative Genius:

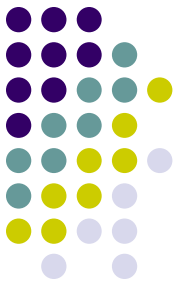
Two Darwinian Perspectives





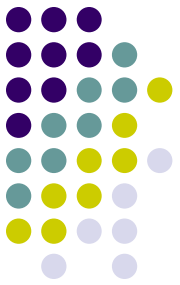
# Introduction

- Two kinds of Darwinism
  - Primary:
    - The origins of new biological species by means of
      - Spontaneous variation
        - genetic recombination
        - mutation
      - Struggle for existence
      - Selective retention
        - Natural (competition for resources)
        - Sexual (competition for reproduction)



# Introduction

- Two kinds of Darwinism
  - Secondary:
    - The origins of adaptive originality via
      - Blind variation (BV)
      - Selective retention (SR)
    - Examples of BVSR processes:
      - Neurodevelopment (Neural Darwinism)
      - Antibody formation
      - Human creativity →
    - Standard definition of a creative idea or behavior:
      - original (BV)
      - adaptive (SR)



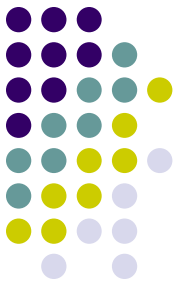
# Introduction

- Overview
  - First, the secondary perspective on creativity
  - Second, the primary perspective on creativity
- Focus
  - Big-C rather than little-c creativity
    - Creative genius rather than everyday creativity
  - Reason: Creative genius
    - best exemplifies secondary Darwinian creativity
    - poses more critical issues with respect to primary Darwinism

# Creative genius: Secondary perspective

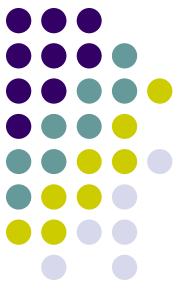


- Problem:
  - What are the factors supporting creative genius that render it Darwinian?
  - Here concentrate on the BV part of Big-C Creativity
- Five sets of factors
  - Cognitive processes
  - Individual differences
  - Developmental antecedents
  - Creative careers
  - Sociocultural phenomena



# Five sets of factors

- Cognitive processes
  - Associative richness and remoteness
  - De-focused attention (reduced negative priming and latent inhibition)



# Five sets of factors

- Individual differences
  - Openness to experience (versatility/interests)
  - Motivation (drive and persistence)
  - Psychoticism:
    - aggressive, cold, egocentric, impersonal, impulsive, antisocial, unempathetic, tough-minded, creative,
    - rather than
    - altruistic, socialized, empathetic, conventional, conformist



# Five sets of factors

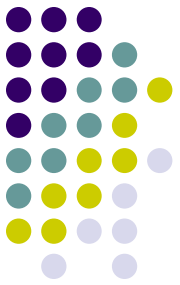
- Developmental antecedents
  - Birth order
  - Familial conflict and trauma
  - Divergent educational experiences
  - Diverse role models and mentors





# Five sets of factors

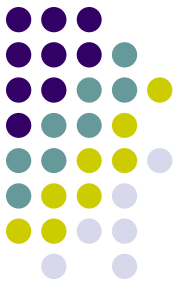
- Creative careers
  - Risk taking variability (project failures)
  - Diversified folios (project variety)
  - Multitasking efforts (project crosstalk)



# Five sets of factors

- Sociocultural phenomena
  - Positive:
    - political fragmentation
    - civil conflict
    - ideological diversity
    - cultural heterogeneity
  - Negative:
    - external: war
    - internal: anarchy

# Creative genius: Primary perspective



- What kind of selection pressures would yield a gene pool capable of producing creative genius?
- Selection possibilities:
  - Individual selection
    - Natural
    - Sexual
  - Group selection

# Postscript



- Cultural rather than biological selection?
  - Within-culture reproductive competition
  - Cross-culture resource competition
- Gene-cultural coevolution?