

# Understanding Mentoring: Analytic Perspectives

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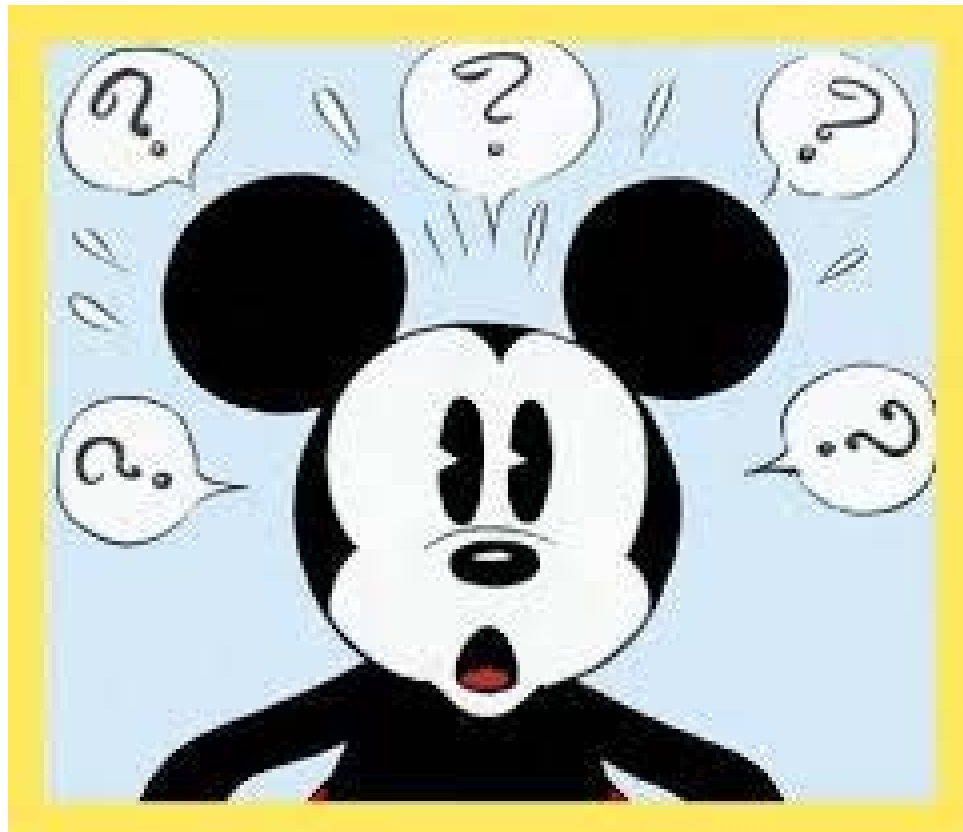
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# The Charge

- How can we enhance our understanding of the mentorship process by leveraging new tools, approaches & methodologies?

# What are Key Unanswered Questions About Mentoring?



# New Tools, Approaches & Methodologies



# Mechanisms of Action

- \* Existing research tends to examine amount of mentoring received or relationship quality in relation to mentoring outcomes
- \* What are the intervening psychological, cognitive, affective & behavioral processes linking mentoring received/quality to outcomes?

# Mechanisms of Action

- \* Laboratory research to pinpoint key relational behaviors
  - \* Observational research with behavioral coding
  - \* Manipulate identified relational behaviors in dyadic exchanges to see effect on outcomes
- \* Field research to examine different potential mediating mechanisms
  - \* Structural equation modeling/path analysis
  - \* The mechanisms of action may vary across outcomes

# Dynamic Processes

- \* Mentoring relationships are inherently dynamic but most research is cross-sectional
- \* Existing research also uses a between-persons (nomothetic) approach
- \* How do relational experiences over time culminate to predict outcomes?
- \* Can studying intra-individual variability (idiographic approach) shed new light on mentoring relationships?

# Dynamic Processes

- \* Lagged (2 times) & longitudinal (3+ times) studies
  - \* Need to carefully consider time lags
  - \* Ideally measure all variables at all time points
    - \* Latent growth modeling to examine change trajectories
    - \* Cross-lagged panel studies to examine reciprocal effects
- \* Ecological momentary assessment (aka experience sampling) to examine within-person effects
  - \* Important for understanding both cumulative & more “immediate” effects of mentoring



# Relationship Stages

- \* Kram's (1985) seminal work on mentoring phases has not been rigorously replicated
  - \* Are there characteristic patterns or phases?
  - \* If so, what are the defining features?
    - \* Relational processes & milestones
  - \* Do relationship stages vary if data is from mentor vs. protégé perspective?
  - \* Do relationship stages vary when comparing formal & informal mentorships?

# Relationship Stages

- \* In-depth qualitative research
  - \* Structured interviews followed by content analysis
  - \* Obtain data from both mentors & protégés
    - \* Sub-group analyses comparing mentor & protégé perspective; formal & informal mentorships
- \* Latent class analysis
  - \* Quantitative exploratory method to identify unobservable sub-groups based on measured variables

# Non-Linear Change

- \* Mentoring theory suggests relationships change over time
- \* Correlational research generally assumes linear change (e.g., “as trust increases, so does relationship quality”)
- \* We know almost nothing about relational shifts & turning points
  - \* Are there predictable patterns of discontinuous change?
  - \* What experiences that fundamentally alter mentoring relationships?

# Non-Linear Change

- \* Qualitative research on relational turning points
  - \* What are the positive &/or negative relational events that fundamentally alter mentoring relationships?
    - \* Can positive turning points repair previously damaged mentorships?
- \* Latent transition analysis (an extension of latent class analysis) using longitudinal data to identify movement between sub-groups over time

# Dyadic Fit

- \* We know surprisingly little about the best way to match mentors & protégés
  - \* Demographics (e.g., race, gender), professional characteristics (e.g., academic discipline), needs-supplies, personality, other individual differences etc.?
- \* Is complimentary or supplementary fit important?
  - \* Do different types of fit matter for different outcomes?
- \* Is there an optimal algorithm for matching on multiple characteristics?

# Dyadic Fit

- \* Quasi-experimental field studies are needed
  - \* Random assignment to different matching methods & examine outcomes
  - \* May be different in formal vs. informal mentorships
- \* Consideration of other matching factors (e.g., racial identity instead of same-race/cross-race comparisons)
- \* Polynomial regression & response surface methodology
  - \* Tests nonlinear effects
  - \* Provides information on similarity (congruence) & discrepancy (incongruence) effects
- \* Computational modeling(?)

# Formal vs. Informal Mentoring

- \* Existing research focuses on this broad distinction
  - \* Meta-analytic research finds small, but consistent effects in favor of informal relationships
    - \* Confidence interval includes zero suggesting moderators
- \* What are the different aspects of formality & which are most important to consider?
  - \* Matching by 3<sup>rd</sup> party, contract, pre-determined length, expectations for interaction, etc.
  - \* Can formal relationships become informal over time?

# Formal vs. Informal Mentoring

- \* Narrative review of research on formal mentoring to identify key features of “formality”
  - \* May help generate predictions about moderators
- \* Informant interviews – are there aspects of formality that we aren’t measuring &/or studying?
- \* Quantitative research
  - \* Develop new measures of relationship formality
  - \* Relative weights analysis to determine what matters most in predicting outcomes
  - \* May differ for protégé & mentor outcomes



# Effects Beyond the Individual

- \* Most research focuses on either the protégé (most common) or the mentor (less common)
- \* Some studies have used in-tact dyads but typically examine crossover effects ( $M \rightarrow P$  or  $P \rightarrow M$ )
- \* Very little, if any, research on multi-level influences
  - \* Mentoring relationships are nested within work-groups/academic departments/research labs, nested within organizations/universities, nested within industries/academic disciplines

# Effects Beyond the Individual

- \* Aggregate effects (unit/department/work group)
  - \* Average, minimum, maximum, variability in mentoring predicting mentoring outcomes
- \* Multi-level modeling to examine individual, dyadic, group, & organizational effects

# Sources of Mentoring Support

- \* Most research focuses on relationship with a single mentor
- \* In reality, protégés likely have multiple mentors over time & perhaps at the same time
  - \* Particularly common in academic settings
  - \* Co-mentors, team mentoring & other hybrids
- \* People also receive developmental support from many sources
  - \* Assigned mentors, informal mentors, collegial peers

# Sources of Mentoring Support

- \* Retrospective life history analysis of mentoring across the life course
- \* Longitudinal survey-based cohort studies from adolescence to adulthood
  - \* Could allow for understanding of transition from protégé to mentor
- \* Social network analysis
  - \* Patterns of giving & receiving support

# There's A Lot of Work to be Done!



Thank you!

