

The Relationship Between Methodological Variables and attachment classifications in the Strange Situation Paradigm: A meta-analysis

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Strange Situation Paradigm

- The most well-validated and widely used measure of infant-caregiver attachment (O'Connor & Byrne, 2007)
- Originally 3-way categorical classifications: *insecure-avoidant*, *secure*, and *insecure-resistant* (Ainsworth et al., 1978)
- 4th category later developed, which was called *disorganized* (Main & Solomon, 1986)

Methodological Quality

- Despite the availability of intensive in-person coder training and detailed coding procedures for the Strange Situation Paradigm attachment classifications, there is variability in the methodological quality of studies in the literature
- Even for those studies that report interrater reliability of trained and certified reliable coders, there are large discrepancies between reliability coefficients
- Some studies report Cohen's Kappa coefficient for 4-way classification reliability as low as .49 (Higley & Dozier, 2009), while others as high as .93 (Jin et al., 2012)

Objective

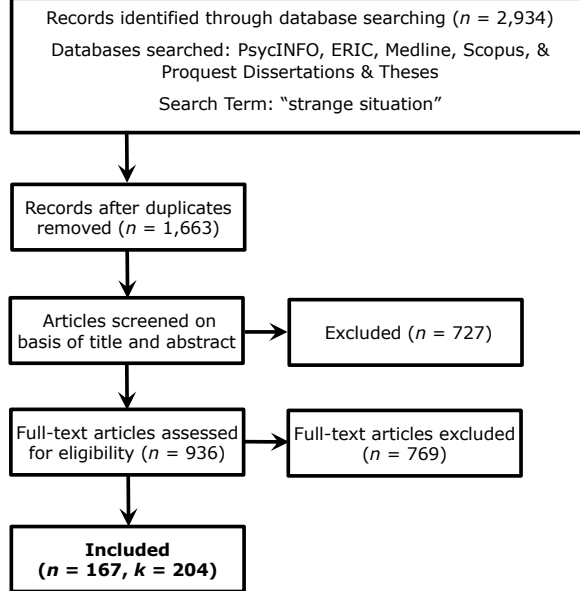
- The goal of the present meta-analysis was to determine if methodological variables (e.g., coder training and reliability) affect the rate of each attachment classification in the Strange Situation Paradigm

Research Questions

- Moderator Analyses – Which of the following variables affect the rate of attachment classifications in the infant Strange Situation Paradigm:
 - Coder training
 - Coder certification
 - % studies second coded
 - % agreement for 4-way classifications
 - Cohen's Kappa for 4-way classifications
 - Peer-reviewed (journal article vs. thesis/dissertation/book)
 - Language of publication

Methods

A meta-analysis was conducted



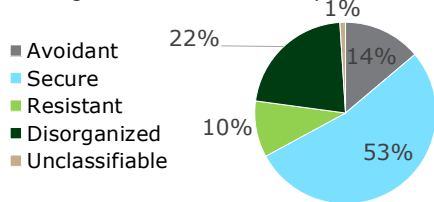
Modified version of the PRISMA Flow Diagram (Moher, Liberati, Tetzlaff, Altman, & The PRISMA Group, 2009)

Data was entered and analyzed using Comprehensive Meta Analysis Software Version 3.0 (Borenstein, Hedges, Higgins, & Rothstein, 2014)

Meta-regression was used for moderator-analyses, which is analogous to regression in primary data-analysis

Results

Weighted Mean Rates of 4-way Classifications



Moderator Analyses

Variable	Avoidant (A)	Secure (B)	Resistant (C)	Disorganized
Coder training	$Q = 0.44$ $p = .532$	$Q = 3.18$ $p = .074$	$Q = 0.08$ $p = .782$	$Q = 0.24$ $p = .620$
Coder certification	$Q = 3.14$ $p = .208$	$Q = 2.20$ $p = .332$	$Q = 0.41$ $p = .519$	$Q = 0.87$ $p = .647$
% of studies 2 nd coded	$Q = 0.06$ $p = .811$	$Q = 0.00$ $p = .994$	$Q = 3.75$ $p = .153$	$Q = 0.41$ $p = .519$
% Agreement	$Q = 0.00$ $p = .946$	$Q = 1.55$ $p = .213$	$Q = 0.97$ $p = .324$	$Q = 1.28$ $p = .257$
Cohen's Kappa	$Q = 0.00$ $p = .959$	$Q = 0.07$ $p = .788$	$Q = 1.51$ $p = .219$	$Q = 0.02$ $p = .895$
Peer reviewed	$Q = 0.56$ $p = .754$	$Q = 1.00$ $p = .605$	$Q = 1.19$ $p = .274$	$Q = 0.33$ $p = .850$
Language of publication	$Q = 0.56$ $p = .453$	$Q = 0.01$ $p = .940$	$Q = 2.43$ $p = .297$	$Q = 0.13$ $p = .715$

Discussion

- Methodological variables were not associated with rates of attachment classifications
 - Suggests that we can have more confidence in the results of studies that do not report coder training and certification
- In the Strange Situation literature there is large variability in the reporting of methodological variables in studies, with many studies neglecting to include a measure of interrater reliability for 4-way attachment classifications
- Another issue encountered was studies not clearly reporting coder training and certification

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