

# **Schizotypy Taxonic or Dimensional?**

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## Schizotypy: Taxonic or Dimensional?

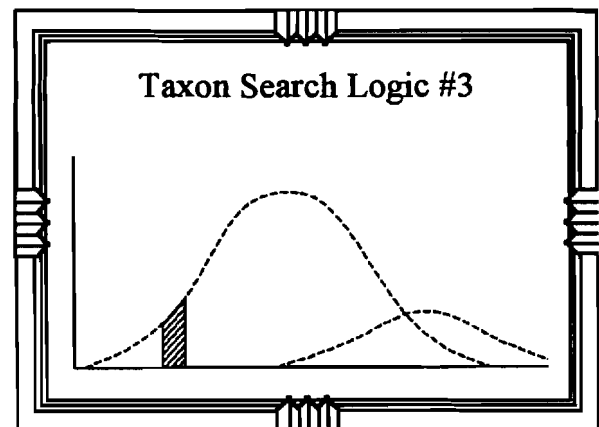
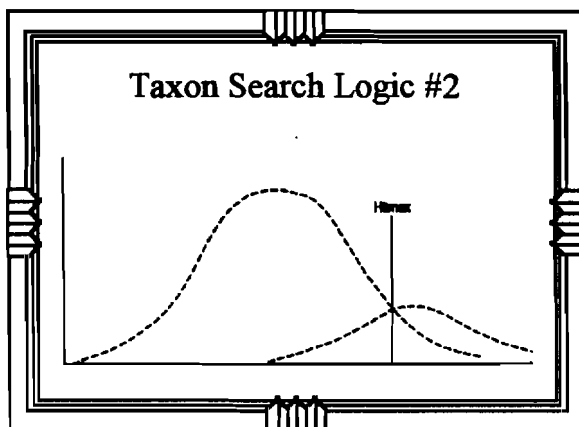
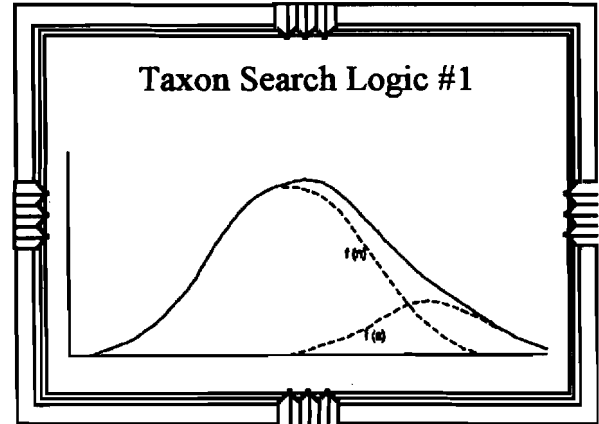
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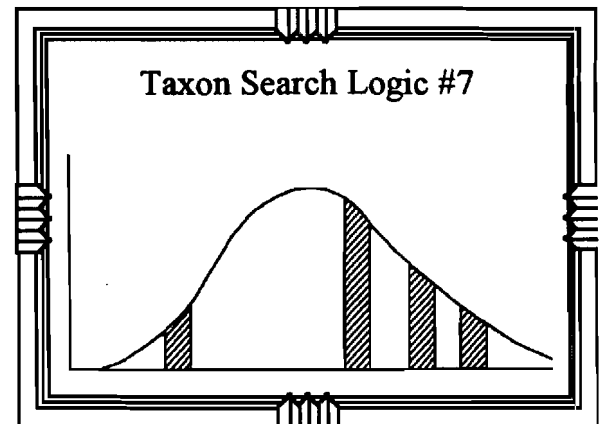
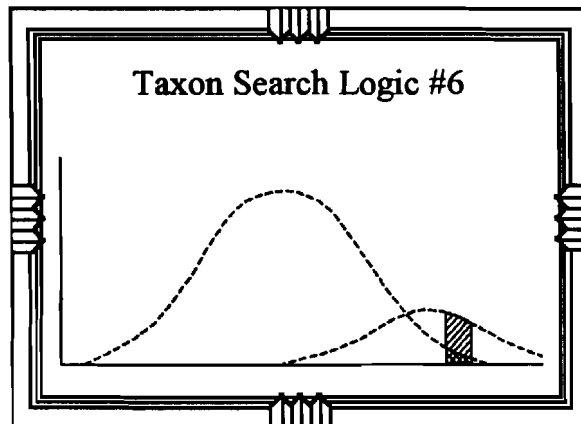
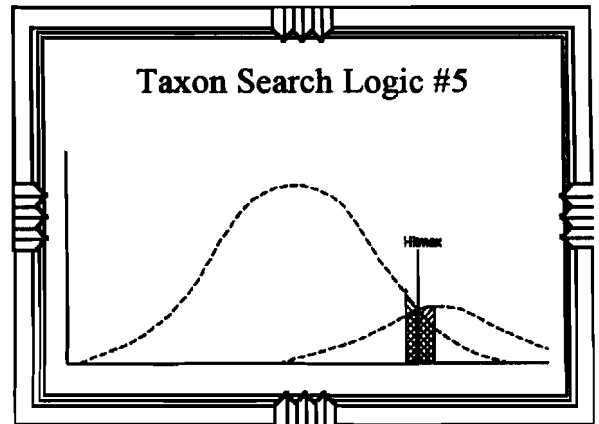
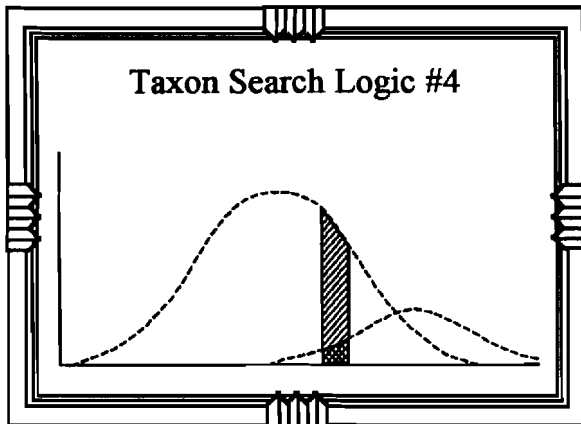
## Meehl's Schizotypy

- ◆ Schizotaxia, Schizotypy, Schizophrenia
- ◆ A Taxonic Theory
- ◆ Difference in Kind, Not Just Degree
- ◆ Detecting the Taxon

## Taxometric Search

- ◆ Meehl and Colleagues
- ◆ Based on Expected Mathematical Relationships
- ◆ In this Study
  - MAMBAC
  - MAXCOV





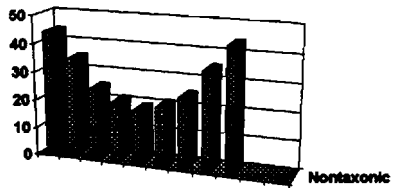
### Sample and Measures

- ◆ 5255 Subjects
- 2752 Males
- 2503 Females
- ◆ Completed Protocols and Low Infrequency Scores
- ◆ Perceptual Aberration
- ◆ Magical Ideation
- ◆ Cognitive Slippage
- ◆ Infrequency Scale

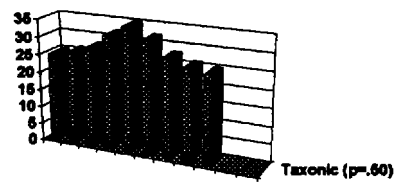
### MAMBAC

- ◆ Mean Above and Below a Cut
- ◆ Sensitive to the Existence of Taxonicity
- ◆ Procedure
  - Sliding Cut on One of Two Indicators
  - Mean Difference on Second Indicator for those Above and Below the Cut
  - Difference at Point of Maximum Discrimination (i.e., HITMAX)

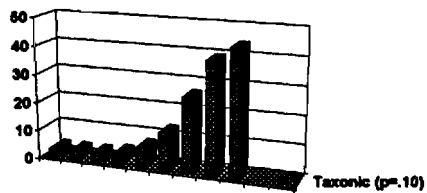
Typical MAMBAC Curves  
(Error Free Data)



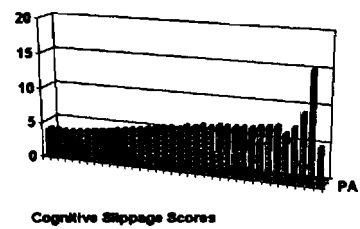
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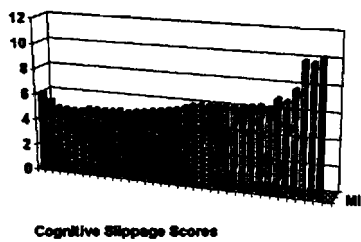
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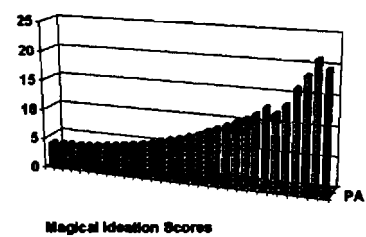
MAMBAC Curves

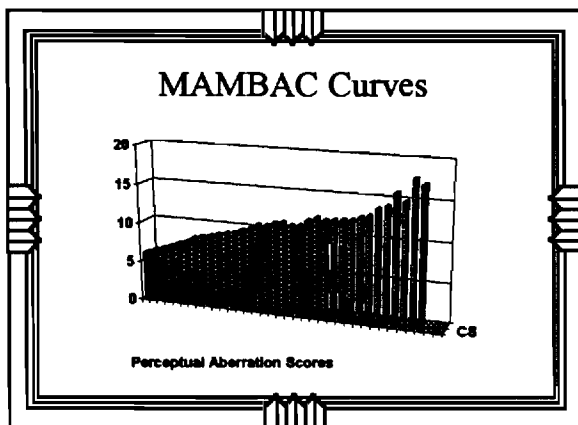
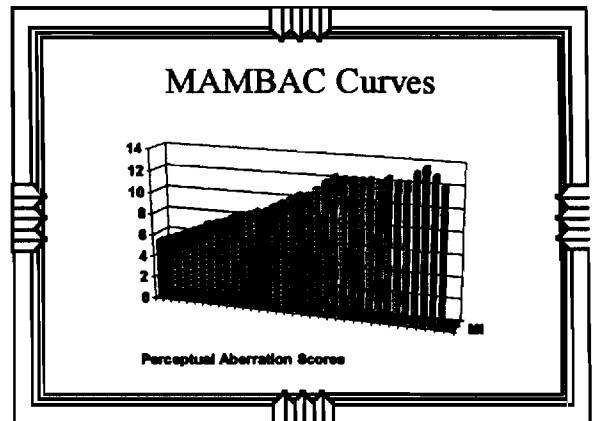
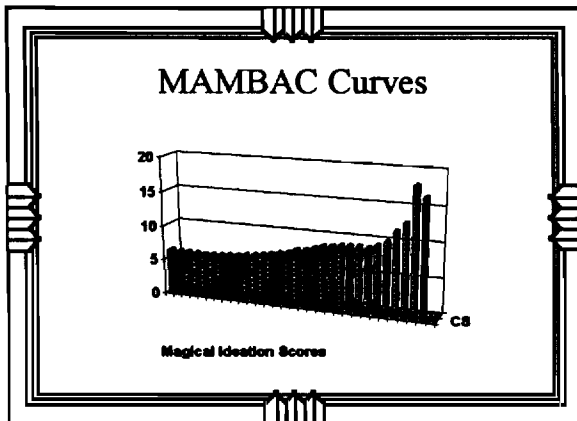


MAMBAC Curves

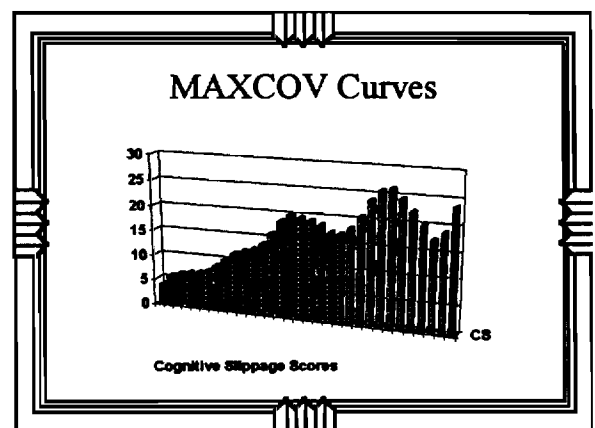
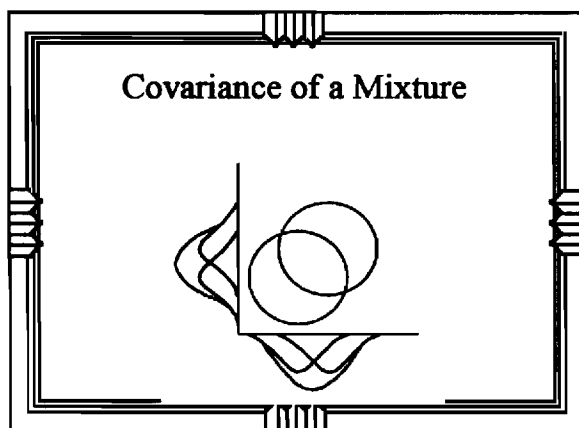


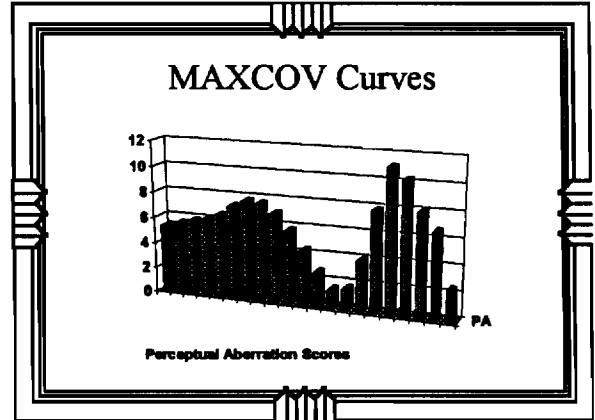
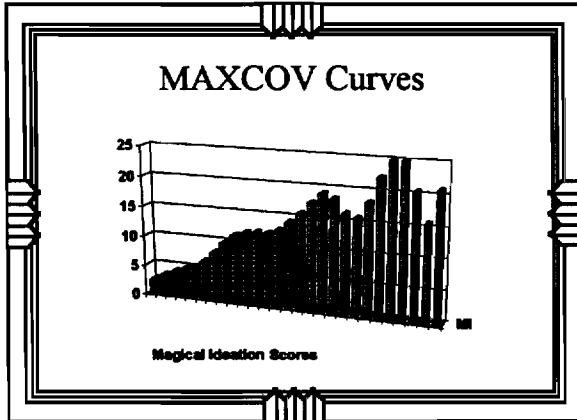
MAMBAC Curves



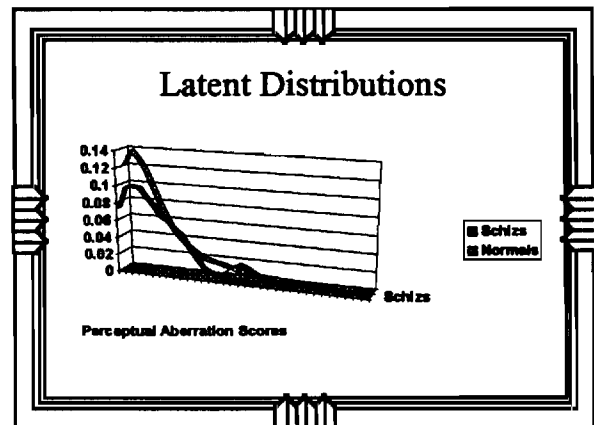
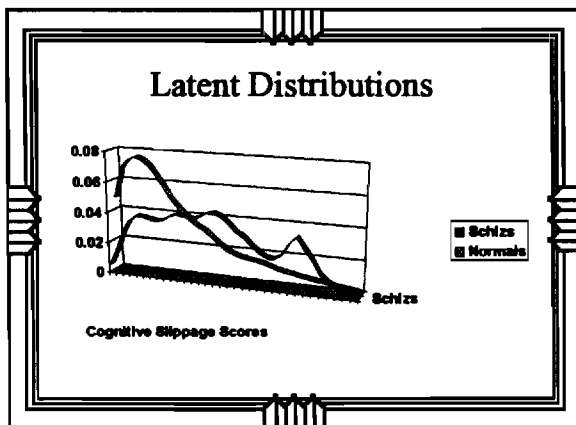
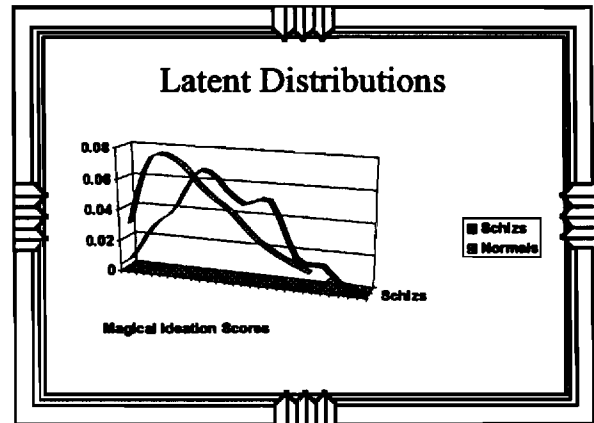


- ### MAXCOV
- ◆ Requires 3 Indicators that are Pairwise Uncorrelated Within Taxa
  - ◆ Procedure
    - Sliding Interval on Variable X
    - Compute  $Cov_{tz}$  for Each Interval
    - Maximum Covariance at HITMAX





- ### Schizotypy Base Rate Estimates
- ◆ Base Rate Estimates
    - Perceptual Aberration (7%)
    - Magical Ideation (10%)
    - Cognitive Slippage (8%)
  - ◆ Consistent with
    - Each Other
    - Other Data (Lenzenweger & Korfins, 1992)
    - Expected Values from Genetic Models



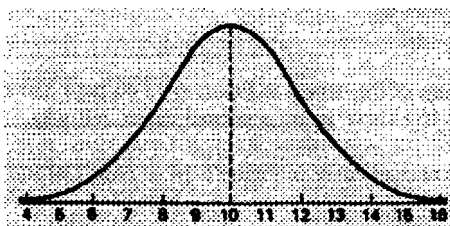
## Summary of Findings

- ◆ Suggestive of an Underlying Taxonomy
- ◆ Latent Distributions Suggests These Scales do a Poor Job of Discriminating the Taxonomy
- ◆ Solution: Improve the Scales!

## Scale Refinement

- ◆ Item Analysis to Refine Scales
- ◆ Test Procedures with
  - Our sample of 5000+ subjects
  - Using Monte Carlo techniques
- ◆ Be Sensitive to Possible Artifacts
- ◆ Psychometric Instruments are Very Prone to Artifacts

## Psychometric Artifacts



## Conclusions

- ◆ Promising Results
- ◆ Underlying Taxonomy or Artifact?
- ◆ How Effectively Do Meehl's Taxon Search Procedures Detect Psychometric Artifacts?
- ◆ If There is a Taxonomy, is it Schizotypy?