

# An Examination of the Impact of Mixed Variable & Fixed Non-Content-Based Invalid Responding on the MMPI-3 Validity Scales

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## Introduction

- A strength of the MMPI family of measures is their robust set of Validity Scales designed to detect several threats to protocol validity (Ben-Porath, 2013)
- Variable Response Inconsistency (VRIN) detects random responding and True Response Inconsistency (TRIN) detects fixed inconsistent responding
- The MMPI-3 includes Combined Response Inconsistency (CRIN), designed to help detect protocols invalidated by a mix of fixed and variable inconsistent responding (Ben-Porath & Tellegen, 2020)
- Although studies have explored the impact of inconsistent responding on the MMPI-2-RF Validity Scales (Burchett et al., 2016, Dragon et al., 2011; Lemaster et al., 2019, Whitney et al., 2018a, 2018b), there is a need to explore the impact of mixed inconsistent responding on the MMPI-3

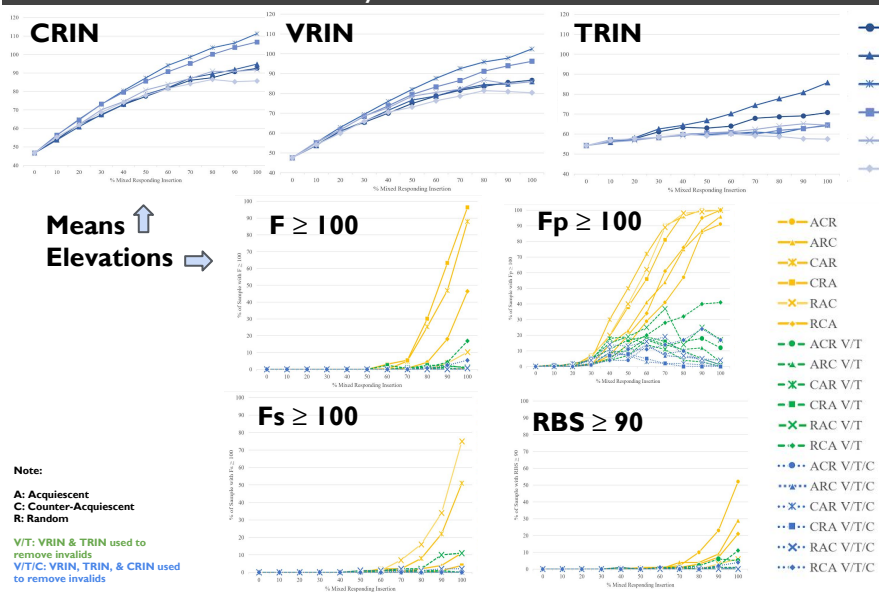
## Aims and Hypotheses

- How does mixed inconsistent responding affect MMPI-3 Validity Scale mean scores and elevations?
- Do VRIN, TRIN, and CRIN help reduce the likelihood of misinterpreting overreporting and underreporting validity scale elevations caused by mixed inconsistent responding?
- We hypothesized that F, Fp, and Fs would be most impacted by mixed inconsistent responding, with Fp being especially impacted due to a relatively low percentage of items being required to reach elevation and relatively low endorsement of these items in the general population

## Method

- Using a college student sample with no validity or substantive scale elevations ( $n = 166$ ), we created 61 datasets with increasing amounts of 6 conceptualizations of mixed inconsistent responding
- For instance, for ACR10: 10% of items in the first third of each person's results were replaced by acquiescent (or true) responses, 10% of middle items were replaced by counter-acquiescent (or false) responses, and 10% of the final third of items were replaced by randomly-selected true or false items

## Impact of Mixed Inconsistent Responding on Selected Validity Scale Means & Elevation Rates



Note:

A: Acquiescent  
C: Counter-Acquiescent  
R: Random

V/T: VRIN & TRIN used to remove invalids  
V/T/C: VRIN, TRIN, & CRIN used to remove invalids

## References

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## Results

### Mean Scores:

- Mean scores on CRIN—and to a lesser degree, VRIN and TRIN—elevated in the presence of increasing levels of mixed inconsistent responding

### Percentage of Sample with Clinically Elevated Scores:

- As hypothesized, F, Fp, and Fs elevations were impacted, especially Fp
- Although not hypothesized, RBS elevations were also impacted
- FBS, L, and K (not pictured) had virtually no elevations in the presence of mixed inconsistent responding

### Utility of Screening for Mixed Inconsistent Responding:

- Using VRIN, TRIN, and CRIN to screen out invalid protocols helped mitigate the impact of mixed inconsistent responding on most scales
- However a notable portion of the protocols with Fp elevations went undetected by VRIN, TRIN, or CRIN (especially with around 40% or greater mixed inconsistent response insertion)

## Conclusion

- When we use VRIN, TRIN, and CRIN to detect and screen out protocols invalidated by mixed responding, we almost never misinterpret the scales as elevating due to symptom exaggeration
- This study highlights the importance of screening for non-content-based invalid responding before interpreting MMPI-3 overreporting and underreporting Validity Scales
- Fp is particularly susceptible to undetected mixed inconsistent responding, so it is particularly important to interpret Fp elevations in the context of extra-test information

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