The Sense of Incompleteness as a Motivating Factor in Obsessive-Compulsive Symptoms: Conceptualization and Clinical Correlates

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Contemporary Understanding of OCD

- Current models emphasize the importance of Harm Avoidance (HA)
  - Threat-related dysfunctional beliefs as motivators of OCD symptoms (Frost & Steketee, 2002)
  - Forms the basis for DSM-5 criteria

- Is this enough to explain all cases of OCD?
  - Associations between HA and other non-OCD disorders points to a lack of specificity
  - Other motivational factors are likely important
Incompleteness (INC)

- A sense that one’s actions, intentions, or experiences have not been fully or properly completed (Coles, Frost, Heimberg, & Rhéaume, 2003; Rasmussen & Eisen, 1992; Summerfeldt, 2004)
  - E.g., “Just right” feelings

- Experienced by the majority of individuals with OC symptoms (>80%) (Leckman, 1994, 1995) but not currently included as part of a cognitive-behavioral conceptualization

- Pierre Janet’s (1908) conceptualization of INC: a broad construct
  - Alexithymia, impaired psychological mindedness, derealization, depersonalization
Clarifying the Role of Incompleteness in OCD

- Broad versus narrow conceptualization of INC
  - Need predictive specificity of OCD symptoms rather than general emotional distress

- HA and INC
  - Orthogonal core dimensions (Summerfeldt, 2004)
    - Previous study suggests they are highly correlated \((r=0.76)\) but factor analytically distinct (Pietrefesa & Coles, 2008)
    - Further exploration needed
  - Possible associations with particular OC symptoms

- Is INC uniquely predictive of OCD symptoms?
Study Aims and Significance

Specific Aims:
1. Compare broad vs. narrow conceptualizations of INC in their specificity to OC symptoms and general distress
2. Determine whether HA and INC are factor analytically distinguishable
3. Determine whether INC predicts OC symptoms after partialling out the effects of HA and OC-related beliefs

Significance of this research
- First study to compare broad and narrow INC in this capacity
- Evidence of a specific relationship of INC to OCD would indicate worth of pursuing experimental investigation of INC in OCD patients
<table>
<thead>
<tr>
<th>Total sample</th>
<th>N=534</th>
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| Age          | Mean: 33 (12)  
               Range: 18-82 |
| Sex          | 58% female |
| Race         | 73% Caucasian |
| Country      | 81% USA, 17% India, 1% Canada |
| Education    | 99% High School degree |
Measures

- **Incompleteness**
  - Not Just Right Experiences Questionnaire Revised (NJRE-Q/INC-C) (Coles et al., 2003)
  - Obsessive Compulsive Core Dimensions Questionnaire-Trait Version (OC-CDQ/INC-S) (Summerfeldt et al., 2001)
  - Toronto Alexithymia Scale-20 (TAS-20) (Bagby, Parker, & Taylor, 1994)
  - Dissociative Experiences Scale-II (DES-II) (Carlson et al., 1993; Stockdale, Gridley, Balogh, & Holtgraves, 2002)
  - Balanced Index of Psychological Mindedness (BIPM) (Nyklicet & Denollet, 2009)

- **OCD phenomena**
  - Obsessive Compulsive Inventory-Revised (OCI-R) (Foa et al., 2002)
  - Obsessive Beliefs Questionnaire-44 (OBQ-44) (OCCWG, 2005)

- **General distress**
  - Positive and Negative Affect Scale (PANAS) (Watson, Clark, & Tellegen, 1988)
Procedures

- Recruitment
  - All participants recruited through Mechanical Turk, a well-established crowd-sourcing platform operated by Amazon.com
  - Battery of measures hosted on SurveyMonkey.com

- Inclusion Criteria
  - 18 years old; Informed Consent; English proficiency

- Exclusion Criteria
  - >3 abnormal scores on the validity scale of the Psychopathic Personality Inventory (Cuttler, Sirois-Delisle, Alcolado, Radomsky, & Taylor, 2013; Lilienfeld & Andrews, 1996)
  - Failure to complete measures
Analyses

- Robust Maximum Likelihood (RML) using MPlus
  - Latent variables for scores from all measures and factor scores for each latent variable
  - Confirmatory Factor Analysis for INC-S and HA components of OC-CDQ

- Correlations among latent variables using SPSS
  - Mean r’s computed via Fisher’s transformation

- Regression analyses using SPSS
  - INC-C, INC-S, and INC-Broad as predictors of OCI-R versus PANAS, controlling for OBQ-44 and HA
Results: HA and INC

- Confirmatory Factor Analysis
  - Compared a 1-factor and 2-factor model of HA and INC-S
  - 2-factor model showed the best fit
    - Smaller values on all three information criteria: AIC, BIC, Sample-size adjusted BIC
    - Also meeting three of four goodness of fit indices identified by Hu & Bentler (1999): SRMR ≤ .08, RMSEA ≤ .06, CFI ≥ .95, and TLI ≥ .95

- HA and INC correlations
  - INC-S and INC-C: \( r=0.49 \) (\( p<.001 \))
  - INC-S and HA: \( r=0.93 \) (\( p<.001 \))
  - INC-C and HA: \( r=0.45 \) (\( p<.001 \))
## Results: Regression Analyses

Study 2: Correlations of INC and HA With OC Symptoms and Negative Emotionality, After Partialling out Either HA or OC-Related Dysfunctional Beliefs

<table>
<thead>
<tr>
<th></th>
<th>HA</th>
<th>OBQ-ICT</th>
<th>OBQ-PC</th>
<th>OBQ-RT</th>
<th>HA partialed out INN-C</th>
<th>INN-S</th>
<th>INN-Broad</th>
<th>OBQ partialed out INN-C</th>
<th>INN-S</th>
<th>INN-Broad</th>
</tr>
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<tbody>
<tr>
<td>Checking</td>
<td>.60***</td>
<td>.50***</td>
<td>.51***</td>
<td>.51***</td>
<td>.29***</td>
<td>.16***</td>
<td>.21***</td>
<td>.36***</td>
<td>.38***</td>
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<tr>
<td>Hoarding</td>
<td>.56***</td>
<td>.42***</td>
<td>.43***</td>
<td>.46***</td>
<td>.26***</td>
<td>.11**</td>
<td>.23***</td>
<td>.34***</td>
<td>.36***</td>
<td>.29***</td>
</tr>
<tr>
<td>Neutralizing</td>
<td>.61***</td>
<td>.53***</td>
<td>.52***</td>
<td>.53***</td>
<td>.28***</td>
<td>.14**</td>
<td>.20***</td>
<td>.34***</td>
<td>.36***</td>
<td>.29***</td>
</tr>
<tr>
<td>Obsessing</td>
<td>.65***</td>
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<td>.48***</td>
<td>.51***</td>
<td>.19***</td>
<td>.09</td>
<td>.30***</td>
<td>.28***</td>
<td>.42***</td>
<td>.43***</td>
</tr>
<tr>
<td>Ordering</td>
<td>.51***</td>
<td>.45***</td>
<td>.56***</td>
<td>.48***</td>
<td>.28***</td>
<td>.36**</td>
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<tr>
<td>Washing</td>
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<td>.49***</td>
<td>.53***</td>
<td>.50***</td>
<td>.28***</td>
<td>.20**</td>
<td>.23***</td>
<td>.35***</td>
<td>.40**</td>
<td>.33***</td>
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<tr>
<td>Negative emotionality</td>
<td>.51***</td>
<td>.27***</td>
<td>.29***</td>
<td>.34***</td>
<td>.08</td>
<td>-.06</td>
<td>.29***</td>
<td>.20**</td>
<td>.32**</td>
<td>.45***</td>
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*p < .01, **p < .005, ***p < .001. Unpartialed correlations appear in Appendix A. HA = Harm Avoidance. OBQ-ICT = Obsessive Beliefs Questionnaire-Importance and control of thoughts. OBQ-PC = Obsessive Beliefs Questionnaire-Perfectionism and Intolerance of Uncertainty. OBQ-RT = Obsessive Beliefs Questionnaire-Responsibility and Overestimation of Threat. INC-C = Not Just Right Experiences Questionnaire-Revised. INC-S = Obsessive-Compulsive Core Dimensions Questionnaire - Trait Version. INC-Broad is a composite of INC-C, INC-S, alexithymia-difficulty describing feelings, alexithymia-difficulty identifying feelings, depersonalization/derealization, and impaired psychological mindedness.
Results: Broad vs. Narrow INC

<table>
<thead>
<tr>
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<th>HA partialled out</th>
<th>OBQ partialled out</th>
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<tr>
<td></td>
<td>INC-C</td>
<td>INC-S</td>
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<tr>
<td>OC symptoms (mean r)</td>
<td>.26</td>
<td>.18</td>
</tr>
<tr>
<td>Negative emotionality</td>
<td>.08</td>
<td>-.06</td>
</tr>
<tr>
<td>Prototypic compulsions (mean r)</td>
<td>.28</td>
<td>.22</td>
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<tr>
<td>Obsessions</td>
<td>.19</td>
<td>.09</td>
</tr>
<tr>
<td>Difference between correlations (Z):</td>
<td>7.01***</td>
<td>8.98***</td>
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<tr>
<td>OC symptoms vs. negative emotionality</td>
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<td></td>
</tr>
<tr>
<td>Difference between correlations (Z):</td>
<td>2.60*</td>
<td>3.50***</td>
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<tr>
<td>Prototypic compulsions vs. obsessions</td>
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*p < .01, **p < .005, ***p < .001. Prototypic compulsions include all compulsions except for hoarding.
Discussion: Summarizing Key Findings

- INC and HA highly correlated yet emerged as distinct factors.

- Findings do not suggest INC is unrelated to HA, but do show that INC predicts OC symptoms even after controlling for HA and after controlling for obsessive, harm-related beliefs and perfectionism.

- Findings do not suggest HA is more strongly associated with compulsions than obsessions or that INC is any more strongly associated with obsessions than compulsions.

- Narrowly defined INC demonstrated a greater specificity to OC symptoms than a broad conceptualization of ICD.
  - Narrow INC (INC-C and INC-S) tended to have stronger associations with OC symptoms than general distress.
  - Broad INC showed the opposite pattern.
Implications, Limitations, and Future Research

- Narrowly defined INC appears more useful in predicting and understanding OCD symptoms than broadly defined INC.

- INC-S more strongly correlated with HA than with INC-C → reasons unclear but perhaps a result of method variance.

Limitations
- Non-clinical sample
- Self-reported data
- Correlational analyses

Future research warranted
- Exploration of INC with clinical samples
- Experimental investigations of HA and INC constructs
- More research on INC may reveal mechanism information which could allow for treatment predictions
References


