

# Social Cognitive Deficits in Schizophrenia: Does Culture Matter?

Zanny Weinreb & Francesca Li

Department of Psychology

Wesleyan University, Middletown, CT 06459



## Introduction/Abstract

Individuals with schizophrenia often experience deficits in social cognition and social functioning. Specifically, they may have difficulty in domains such as theory of mind, empathy, affect recognition, and social perception. These difficulties may serve as barriers to normal social interactions, including perceiving and responding to the actions of others as well as correctly identifying social contexts. Most of the research on social cognition in schizophrenia has taken place in western cultures using measures based on western societal norms. This has led to questions of culture's influence on social cognition in individuals with schizophrenia. For example: how might differing social norms affect social cognition? And, does culture influence the utility of current measures used to test social cognition across the world? Relevant studies collected from the PsychINFO, PubMed, CINAHL, and ProQuest Dissertations and Theses databases, published in or after 1980, will be used to address these questions. Insight into culture's influence on social cognition and its measurement could lead to the development of more culturally-sensitive approaches to the assessment, treatment, and understanding of schizophrenia. Findings could also call into question our fundamental understanding of social cognition in people with schizophrenia -- such as its neural components, development, and presentation, requiring further research

## Definitions

In a conference on social cognition in schizophrenia sponsored by the National Institute of Mental Health (NIMH) in 2006, researchers agreed on the definition of social cognition and its five main areas of research<sup>1</sup>:

**Social Cognition:** "The mental operations that underlie social interactions, including perceiving, interpreting, and generating responses to the intentions, dispositions, and behaviors of others."<sup>1</sup>

- **Theory of Mind**
  - "(also called mental state attribution) typically involves the ability to infer intentions, dispositions, and beliefs of others."<sup>1</sup>
- **Social Perception**
  - "one's ability to identify social roles, societal rules, and social context."<sup>1</sup>
- **Social Knowledge**
  - "awareness of the roles, rules, and goals that characterize social situations and guide social interactions."<sup>1</sup>
- **Attributional Bias**
  - "reflects how people typically infer the causes of particular positive and negative events."<sup>1</sup>
- **Emotional Processing**
  - "refers broadly to perceiving and using emotions [...] including identifying emotions, facilitating emotions, understanding emotions, and managing emotions."<sup>1</sup>
  - Generally includes empathy and affect perception.<sup>1</sup>



## Research Questions

- 1.) What is the role of culture in the expression of social cognitive deficits in individuals with schizophrenia?
- 2.) How does culture affect how a schizophrenic individual processes social information?
- 3.) How do different cultures impact the measures used to test social cognition in individuals with schizophrenia?
- 4.) Are there differences in social cognitive deficits between individuals with schizophrenia across cultures?

## Inclusion & Exclusion Criteria

Inclusion	Exclusion
<ul style="list-style-type: none"><li>● Studies consisting of individuals with Schizophrenia / psychosis<ul style="list-style-type: none"><li>○ (greater than 70% of the sample must have a diagnosis of schizophrenia or schizoaffective disorder)</li></ul></li><li>● Non-familial healthy control groups (non psychiatric)</li><li>● At least one standardized measure of social cognition from SCOPE Guidelines<ul style="list-style-type: none"><li>○ Ambiguous Intentions Hostility Questionnaire</li><li>○ Bell Lysaker Emotion Recognition Task</li><li>○ Penn Emotion Recognition Test</li><li>○ Relationships Across Domains</li><li>○ Eyes Test</li><li>○ The Awareness of Social Inferences Test—Part III</li><li>○ Hinting Task</li><li>○ Trustworthiness Task</li><li>○ MCCB (MSCEIT)</li></ul></li><li>● Unique data (no meta-analyses or systemic reviews)</li></ul>	<ul style="list-style-type: none"><li>● Studies done before 1980*</li></ul> <p>*1980 is the publication year of the DSM-III, which includes the most up to date criteria for the evaluation and diagnosis of schizophrenia.</p>

Figure 1: I&E Criteria used to screen and select studies

## Methodology

### Electronic Literature Review

#### Initial Steps/ Screening:

- Parallel searches were conducted in PubMed/MEDLINE, PsycINFO, CINAHL, and ProQuest: Dissertation and Thesis Global.
- Covidence systematic review software (Veritas Health Innovation Ltd, 2020) was used to help aid in screening and data extraction. Once search was completed, articles were uploaded into Covidence and duplicates were removed using the computer software.
- Title and abstracts of remaining citations were screened by two reviewers independently against the inclusion/exclusion criteria. Irrelevant papers were excluded. For articles deemed relevant, or where it is challenging to determine relevancy though solely abstract and title, full text papers will be sought and evaluated.

#### Data Extraction and Coding:

- After key sources and texts are identified, the following data (and more) will be extracted into a database:
  - Author(s)
  - Scope Measure(s) used
  - Sample Size & demographics
  - Location of Study
  - Income of Country
    - Low income vs. High income
  - Results
    - SD and Mean

#### Data Analysis:

- Once all articles have been screened and coded, we will conduct statistical analyses on the data.

## Prisma Diagram

The PRISMA flow diagram below depicts the flow of information through the different phases of our systematic review.



Figure 2: PRISMA Diagram created by Covidence

### Bibliography

<sup>1</sup> Michael F. Green, David L. Penn, Richard Bentall, William T. Carpenter, Wolfgang Gaebel, Ruben C. Gur, Ann M. Kring, Sohee Park, Steven M. Silverstein, Robert Heinsen, Social Cognition in Schizophrenia: An NIMH Workshop on Definitions, Assessment, and Research Opportunities, *Schizophrenia Bulletin*, Volume 34, Issue 6, November 2008, Pages 1211–1220, <https://doi.org/10.1093/schbul/sbm145>

<sup>2</sup> Thomas, A. B. "Evolution of diagnostic criteria in psychoses." *Dialogues in clinical neuroscience* vol. 3,4 (2001): 257-63.