

Important co-occurring problems in autism spectrum disorder: strategies for characterization and treatment

American Academy of Child & Adolescent Psychiatry 2020 Virtual Annual Meeting
September 24th, 2020

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Disclosure of potential conflicts of interest

Source	Research funding	Advisor/ consultant	Employee	Speakers' bureau	Books, intellectual property	In-kind services (e.g., travel)	Stock or equity	Honorarium or expenses for this presentation or meeting
Potential conflict	Whitaker Scholar in Developmental Neuropsychiatry Award (Marilyn and James Simons Family Giving) NIMH T32 Fellowship (National Institutes of Health)							

Discussion of off-label medication use

- Not part of this talk

This presentation is part pre-recorded, part live

- Pre-recorded: individual talks from speakers (~2 hours)
- Live: Q&A with speakers and discussant (~30 minutes)
 - **Friday, October 23rd: 11:30am to 12pm EST**
- If questions come up as you watch this:
 - Send a tweet containing the tags **#AACAP2020** and **#ASDCP**
- We'll address them during the Q&A

ADHD

Psychosis

Autism spectrum disorder (ASD):
**Social communication deficits &
restricted/repetitive behavior**

Anxiety

Emotional
dysregulation

Understanding psychosis in autism spectrum disorder: conceptual and practical challenges

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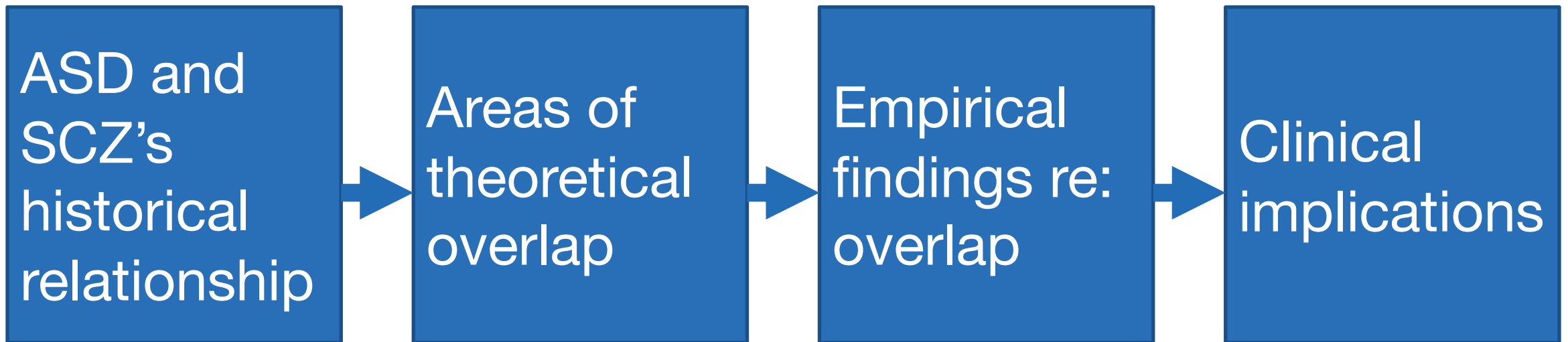
American Academy of Child & Adolescent Psychiatry, 2020 Annual Meeting
Complex Presentations of ASD: Beyond the Core Features (Clinical Perspectives)
October 18, 2019

Why care about psychosis in autism?





Overview





“the **autistic** withdrawal of the [schizophrenic] patient to his fantasies, against which any influence from outside becomes an intolerable disturbance. This seems to be the most important factor. In severe cases it by itself can produce negativism.”

Bleuler, 1910
(quoted in Kuhn and Cahn, 2004)

“The combination of **extreme autism**, obsessiveness, stereotypy, and echolalia brings the total picture into relationship with some of the basic **schizophrenic** phenomena. Some of the children have indeed been diagnosed as of this type at one time or another.”

Kanner, 1943



CHILDHOOD SCHIZOPHRENIA

SYMPOSIUM, 1955

6. EARLY INFANTILE AUTISM, 1943-55

LEON EISENBERG, M.D., AND LEO KANNER, M.D.

Children's Psychiatric Service, Harriet Lane Home, Johns Hopkins Hospital, Baltimore, Maryland

Takahashi, A. On psychotic symptoms (especially the autistic tendency) of mentally retarded children. *Japanese Journal of Child Psychiatry*, 1960, 1, 50-57.

recent developments in the study of early childhood psychoses: infantile autism, childhood schizophrenia, and related disorders

Hingten and C. Q. Bryson

man 1967), elective mutism, retrolental fi
nlasia (Wing 1966) developmental anhasia /

Kanner's Syndrome or Early-Onset Psychosis: A Taxonomic Analysis of 142 Cases

Margot Prior,¹ Dennis Perry, and Christine Gajzago

Monash University

Clayton, Victoria, Australia

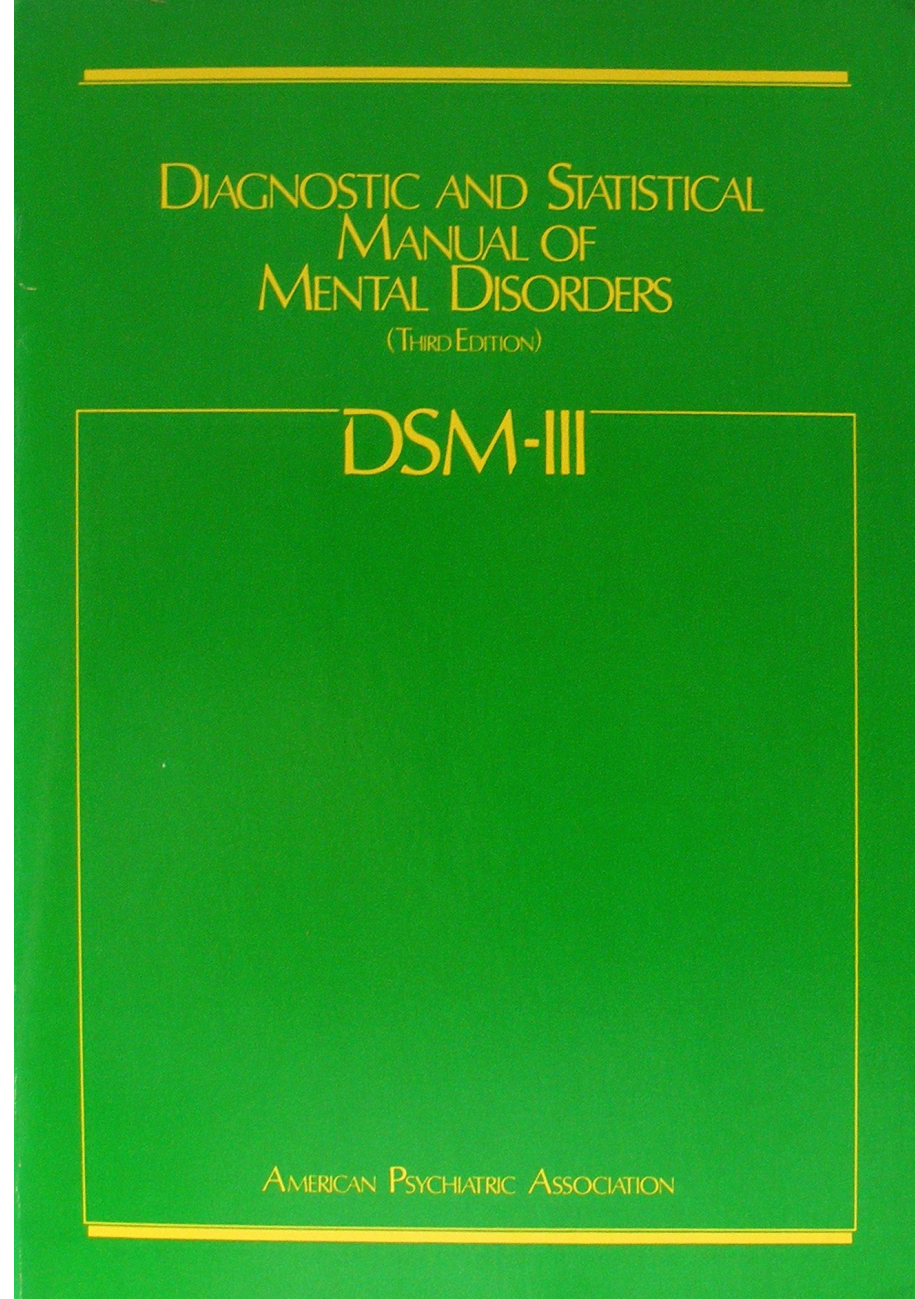
“A host of different syndromes have been included in the general category of ‘childhood **schizophrenia**’ – infantile **autism**, the atypical child, symbiotic **psychosis**, dementia praecocissima, dementia infantilis, **schizophrenic** syndrome of childhood, pseudo-psychopathic **schizophrenia**, and latent **schizophrenia** to name but a few ... The diagnostic situation can only be described as chaotic.”

Rutter, 1972

Editorial: Change of Journal Scope and Title

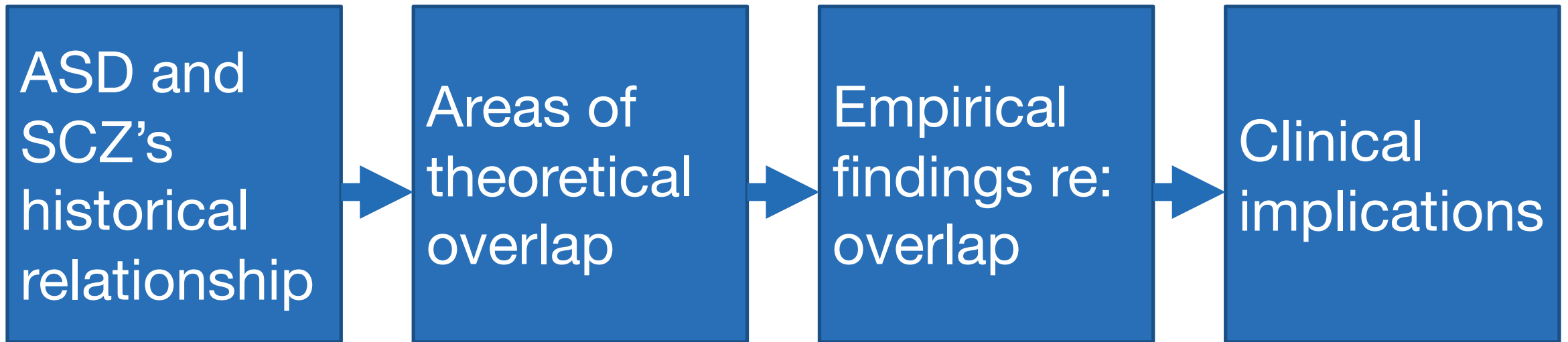
The title change with this issue of the journal was overdue. In a survey of our editorial board in March 1975, 93% of the board favored a change. Many different suggestions were offered, but a majority wanted to include developmental disorders in the new title. Our publishers thought it right to delay modifications, but as the evidence has become compelling they have now agreed to change the scope and title from the *Journal of Autism and Childhood Schizophrenia* to the *Journal of Autism and Developmental Disorders*.

Schopler, Rutter & Chess, 1979



APA, 1980

Overview



Autism spectrum disorder

Typically
diagnosed in
childhood

Typically **stable**
course

Schizophrenia

Typically
diagnosed in
**adolescence or
early adulthood**

Typically
deteriorative
course

Autism spectrum disorder

Restricted or
repetitive interests
or behaviors

Schizophrenia

Psychosis

Autism spectrum disorder

Schizophrenia

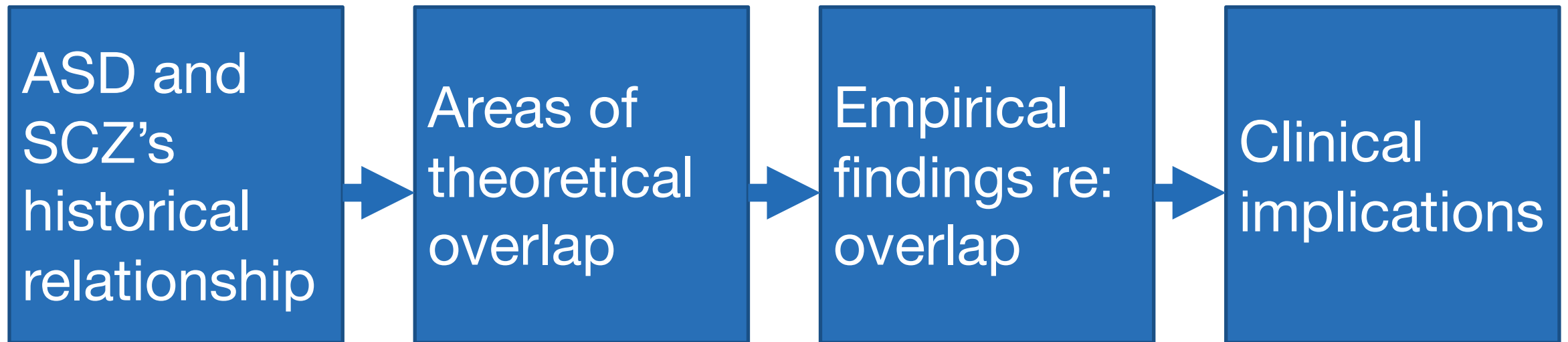
Cognitive systems:

- **Language**

Social processes:

- **Social communication**
- **Perception and understanding of self**
- **Perception and understanding of others**

Overview



- Schizophrenia in the general population:
 - 1% prevalence
- Schizophrenia in people **with ASD**:
 - 3.55x odds** (Zheng, Zheng & Zou, 2018)
 - 4% prevalence** (Lai et al, 2019)

In a large, naturalistic sample of U.S. youth, we have found an association consistent with this:

- Adolescent Brain Cognitive Development sample of 9,130 youth aged 9—11:
 - Parent-reported **ASD** predicted child-reported **prodromal psychotic** symptoms **at least as strongly as family history**

Jutla et al, 2020a (submitted; preprint available)

- ASD youth with **prodromal**/subthreshold psychotic symptoms **convert** to full-blown psychotic illness at similar rates (18.2%) as youth with prodromal symptoms who do *not* have ASD (16.8%)
- ...Yet some evidence suggests that ASD youth **may be under-represented** in prodromal clinical settings

Foss-Feig et al, 2019

Jutla et al, 2020b (submitted)

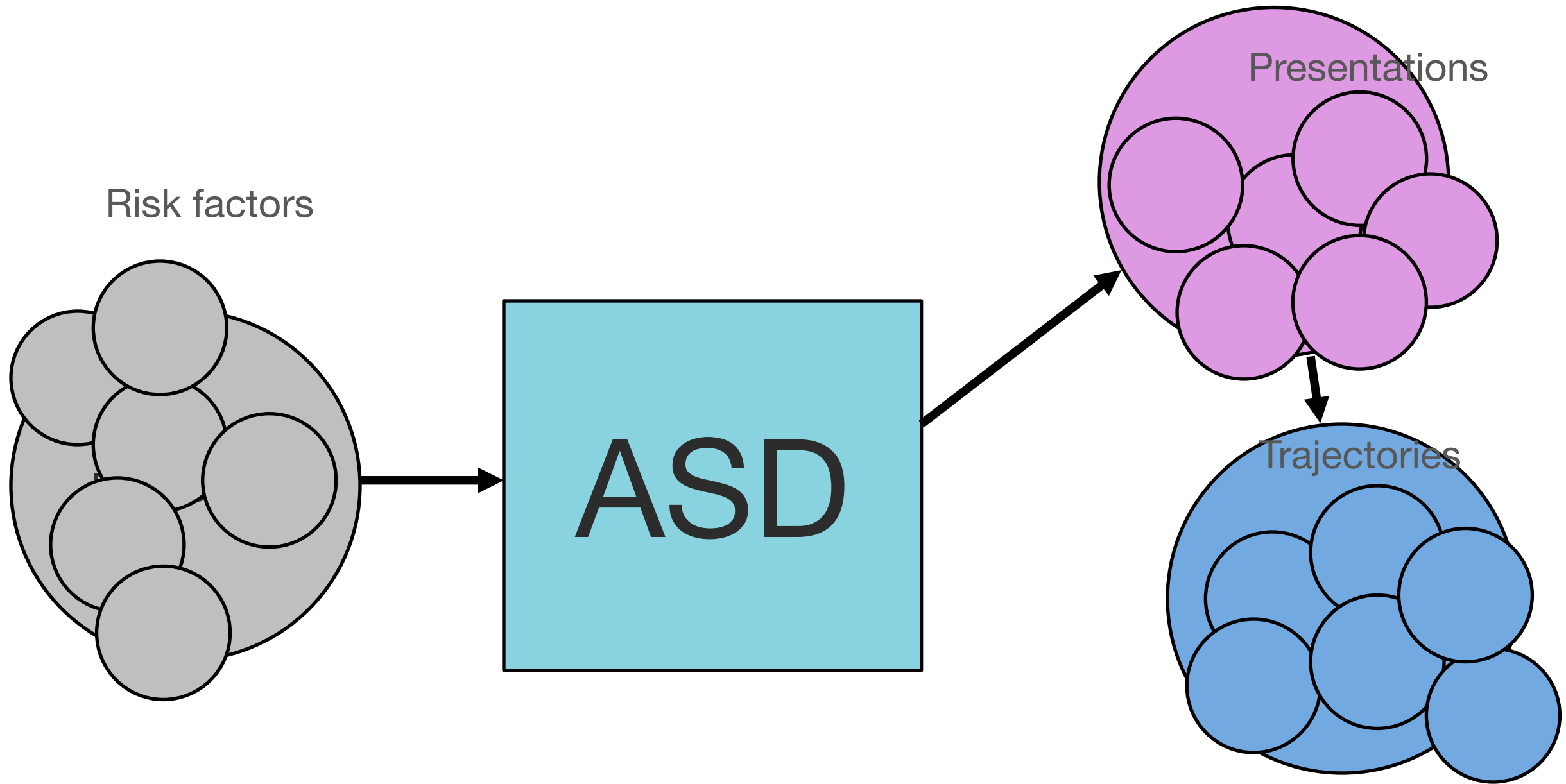
Certain **groups within** ASD may be more likely to develop psychosis

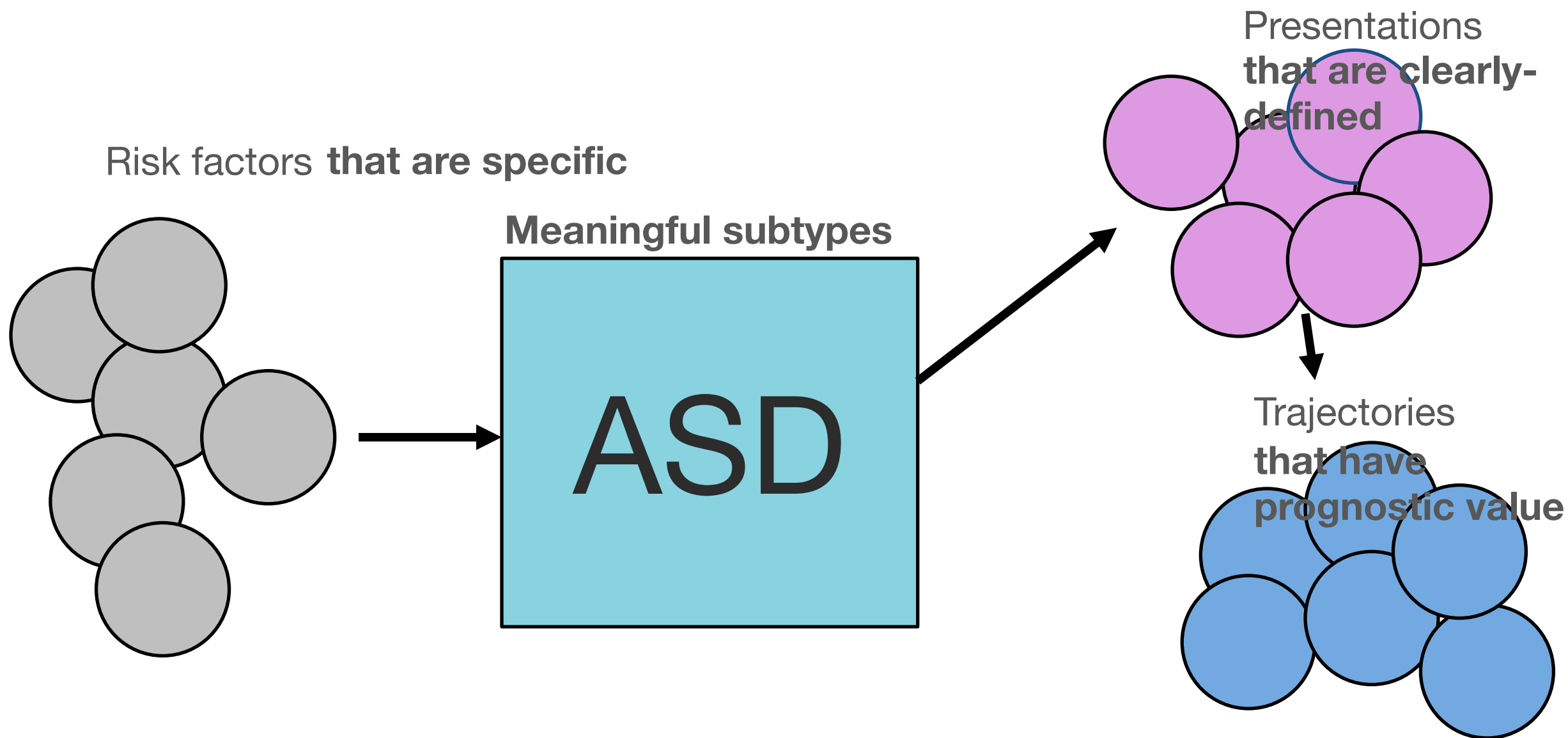


We have examined **genetically-defined** groups

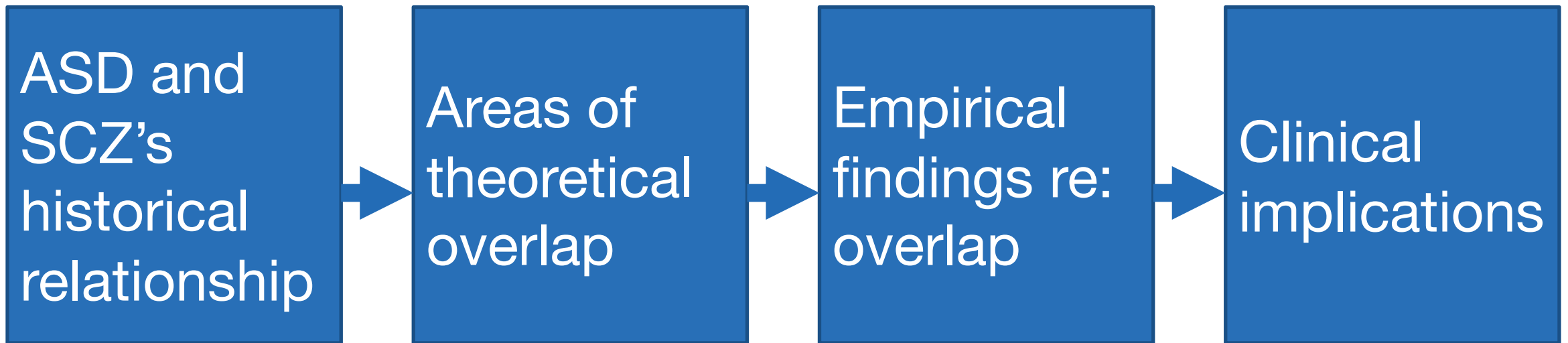
- **16p11.2 copy number variation**
 - 16p11.2 duplication and 16p11.2 deletion are both associated with autism and schizophrenia
 - The ASD associated with 16p11.2 **duplication** may be **more** psychosis-prone than that associated with 16p11.2 **deletion** (though confirmatory evidence is needed)

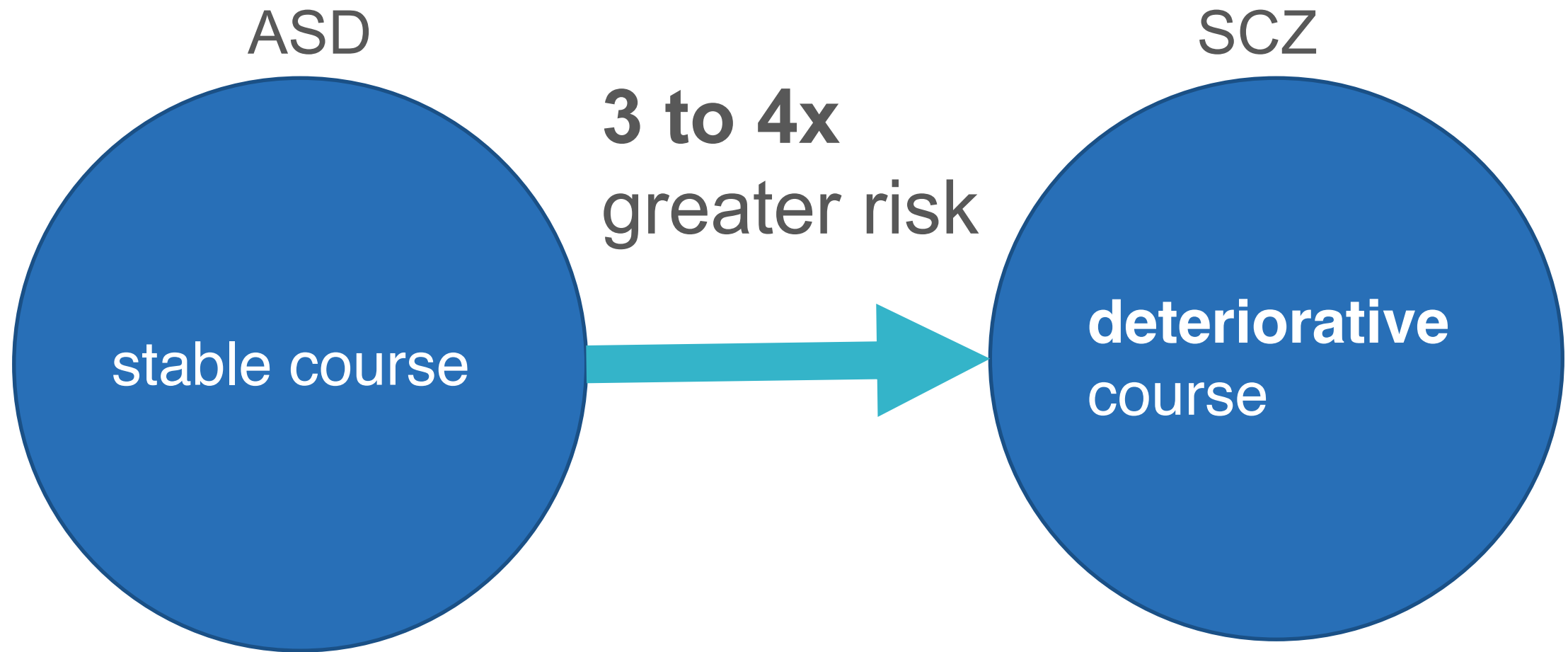
Jutla et al, 2019





Overview





Take potential psychotic behaviors in ASD youth seriously (i.e., avoid the temptation to assume symptoms are “just” a function of autism)

Most prodromal youth (including those with ASD) do not go on to develop full-blown schizophrenia, but again: there is greater overall risk with ASD.

Get chromosomal microarray testing in anyone with ASD of unknown etiology (which is effectively most cases of ASD)

Muhle et al, 2017

Probe the boundary between repetitive/perseverative behavior and psychosis

Look for change over time

Mentors and collaborators

- Gary Brucato
- Wendy Chung
- Rose Donohue
- Jennifer Foss-Feig
- Ragy Girgis
- LeeAnne Snyder
- Blake Turner
- Jeremy Veenstra-VanderWeele
- Agnes Whitaker

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