




Pragmatic Language in Autism Spectrum Disorders

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Pragmatic Language


Using language appropriately in social situations:

- Different purposes: requesting, asking questions, greeting, informing
- Different situations or partners
- Social and language rules for conversation and storytelling

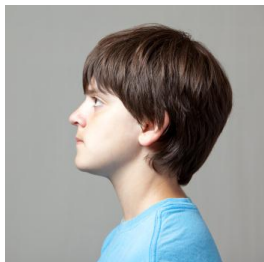
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T.R.

- Kindergarten
- No previous diagnosis
- Challenging behaviors at school
- "Poor awareness of social cues"
- Problems with peers
- "Pragmatic language deficits"



C.B.



- Seventh grader
- Diagnosis: Autistic Disorder
- Language delays
- Superior nonverbal ability and academic achievement
- Speech/language goals: expressive language (form grammatical, meaningful sentences, articulation)



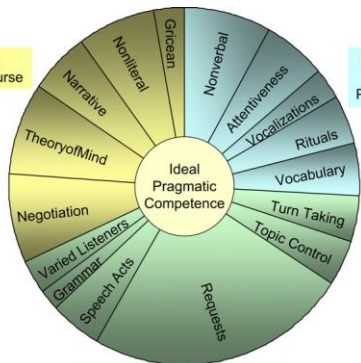
WHY

“The way in which a child’s language is used in the important contexts and encounters in their social environment (e.g., home, school, peer environments) may be more relevant to adjustment and social success than their competence in more traditionally assessed language areas.”

(2008, Russell & Grizzle)

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Extended Literal
Nonliteral Discourse



Basic Exchanges or Rounds

2007, Russell

Pragmatic Language Competence

- Variety of Communicative Functions
- Initiating versus responding
- Speech acts such as greetings, complements, negotiations
- Conversation: turn-taking, topic control, repair
- Manage language for Discourse
 - Organization or structure
 - Cohesion
 - Coherence

Contributing Factors

- Receptive and Expressive Language Development
- Executive Functioning
- Weak Central Coherence
- Lack of experience
- Poor Theory of Mind

Pragmatic Language Impairment is symptomatic of various diagnoses...

- Language disorders
- Traumatic Brain Injury
- Attention Deficit/Hyperactivity Disorder
- Williams Syndrome
- Cognitive/Intellectual disability
- Externalizing and Internalizing behavioral diagnoses

Proposed Addition to DSM-V

- A. Social Communication Disorder (SCD) is an impairment of pragmatics and is diagnosed based on difficulty in the social uses of verbal and nonverbal communication in naturalistic contexts, which affects the development of social relationships and discourse comprehension and cannot be explained by low abilities in the domains of word structure and grammar or general cognitive ability.
- B. The low social communication abilities result in functional limitations in effective communication, social participation, academic achievement, or occupational performance, alone or in any combination.
- C. Rule out Autism Spectrum Disorder (ASD).
- D. Symptoms must be present in early childhood (but may not become fully manifest until social demands exceed limited capacities).

Retrieved April 10, 2012 from <http://www.dsm5.org/Pages/Default.aspx>

What to Assess?

Nonverbal communication

Prosody

18-30 month language age

- # different communication functions
- Proportion social bids/total communication
- Assertion/responsiveness

30-48 months language age

- Add narrative
- Add conversation turn-taking/topic

48 months language age

- Conversation Discourse
- Perspective Taking/Theory of Mind

Rating Scales

- Children’s Communication Checklist-2 (Bishop)
- CELF-4 Observational Rating Scale and Pragmatics Profile (Wiig, Secord & Semel)
- CELF Pre K 2 Descriptive Pragmatics Profile
- Pragmatic Language Skills Inventory (Gilliam)

CCC-2 Results: TR

| Children's Communication Checklist - Second Edition, U.S. Edition | | | | | | |
|---|-----------|--------------|-----------------|------------|--------|--------|
| Summary Chart | | | | | | |
| Child's Name: T R | | | | | | |
| Child's sex: male | | | | | | |
| Date of birth: 8-Dec-05 | | | | | | |
| Date CCC-2 completed: 2-Oct-11 | | | | | | |
| Age (months): 70 | | | | | | |
| Respondent: father | | | | | | |
| | Raw Score | Scaled Score | Composite Score | Percentile | 90% CI | 95% CI |
| A. Speech | 0 | 12 | | 75 | | |
| B. Syntax | 3 | 8 | | 25 | | |
| C. Semantics | 6 | 7 | | 16 | | |
| D. Coherence | 11 | 4 | | 2 | | |
| E. Initiation | 14 | 4 | | 2 | | |
| F. Scripted language | 18 | 1 | | 0.1 | | |
| G. Context | 8 | 7 | | 16 | | |
| H. Nonverbal communication | 7 | 6 | | 9 | | |
| I. Social relations | 10 | 4 | | 2 | | |
| J. Interests | 19 | 1 | | 0.1 | | |
| General Communication Composite -- GCC ² | | 49 | 76 | 5 | 72-82 | 71-83 |
| Social Interaction Difference Index -- SIDI ² | | -16 | | | | |
| Consistency Check ³ | | 1 | | | | |

CCC-2 Results CB

| Children's Communication Checklist - Second Edition, U.S. Edition | | | | | | |
|---|-----------|--------------|-----------------|------------|--------|--------|
| Summary Chart | | | | | | |
| Child's Name: C B | | | | | | |
| Child's sex: male | | | | | | |
| Date of birth: 26-Jul-99 | | | | | | |
| Date CCC-2 completed: 3-Mar-12 | | | | | | |
| Age (months): 151 | | | | | | |
| Respondent: mother | | | | | | |
| | Raw Score | Scaled Score | Composite Score | Percentile | 90% CI | 95% CI |
| A. Speech | 4 | 6 | | 9 | | |
| B. Syntax | 10 | 2 | | 0.4 | | |
| C. Semantics | 10 | 4 | | 2 | | |
| D. Coherence | 15 | 2 | | 0.4 | | |
| E. Initiation | 16 | 3 | | 1 | | |
| F. Scripted language | 13 | 2 | | 0.4 | | |
| G. Context | 15 | 3 | | 1 | | |
| H. Nonverbal communication | 9 | 4 | | 2 | | |
| I. Social relations | 6 | 7 | | 16 | | |
| J. Interests | 19 | 1 | | 0.1 | | |
| General Communication Composite -- GCC ² | | 26 | 58 | 0.3 | 55-65 | 54-66 |
| Social Interaction Difference Index -- SIDI ² | | 1 | | | | |
| Consistency Check ³ | | 1 | | | | |

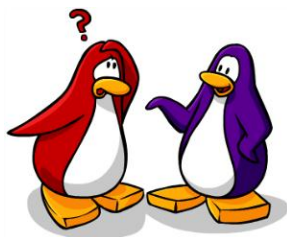
Observational Checklists or Protocols

- Pragmatics Protocol (Prutting)
- Functional Communication Profile (Kleinman)
- Pragmatic Rating Scale (Landa)
- Yale in vivo Pragmatic Protocol (Paul)
- Clinical Discourse Analysis (Damico)
- Language sample analysis
 - Responsiveness/assertiveness
 - Speech acts/conversational moves
 - Topic management
 - Paraverbals (nonverbal cues, prosody)

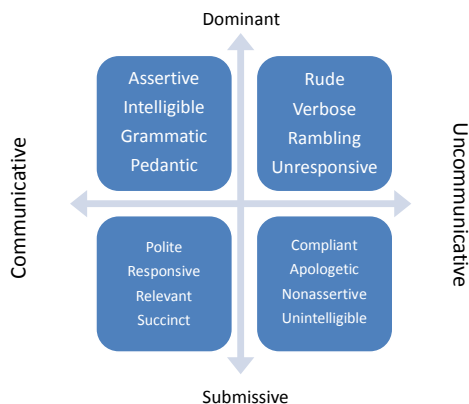
Conversational Discourse

Conversational Maxims (Grice)

- Quantity
- Quality
- Relation
- Manner



Damico – Conversational discourse errors in 25% or more of utterances raise concerns



Semi-structured Conversation Rating

| Probes: Greeting, small talk, See SALT elicitation procedures - Role play: ask child to pretend to be the mommy or daddy for toy - When child asks for an object, tell him to ask nicer - Give a choice of two objects, present the wrong one - Ask for clarification of something the child says - Perspective/narrative: 3-6 picture sequence cards/clinician can't see the pictures | Yes | No | No Opportunity |
|---|-----|----|----------------|
| Communication Functions | | | |
| Directing others | | | |
| Self-directing | | | |
| Reporting | | | |
| Reasoning | | | |
| Predicting | | | |
| Empathizing | | | |
| Imagining | | | |
| Negotiating | | | |
| Discourse Management | | | |
| Waits turn to speak | | | |
| Responds to speech with speech consistently | | | |
| Responds to speech with relevant remark | | | |
| Maintains other's topic for at least two turns | | | |
| Shifts topics appropriately | | | |
| Monitors partner with appropriate gaze (look at speaker~40-50%, shift gaze to look at referents) | | | |

Standardized Tests and subtests

- Comprehensive Assessment of Spoken Language - Pragmatic Judgment and Supralinguistic Index (1999, Carrow-Woolfolk)
- Diagnostic Evaluation of Language Variance (DELV) (2005, Seymour, Roper, DeVilliers)
- Test of Language Competence: Revised
- Test of Pragmatic Language
- Test of Problem Solving - 3
- The Social Language Development Test
- The Social Emotional Evaluation

Curriculum Based Assessments

- SCERTS: Social Communication Emotional Regulation and Transactional Supports (2006, Prizant et al)
- Early Start Denver Model (2010, Rogers and Dawson)
- Triad Social Skills Assessment (1998, 2010, Stone et al)
- Social Thinking Assessment (Garcia Winner)

Triad Social Skills Assessment



Assessing Children with Autism Spectrum Disorders

(http://kc.vanderbilt.edu/kennedy_files/TSSA Manual_102010.pdf)



Treatment Goals

- Address joint attention
- Improve listener responding and intraverbal skills
- Expand communicative functions
- Teach conversation skills
- Improve theory of mind and perspective taking
- Generalize skills across different partners across situations

Treatment strategies

- Developmental intervention – active engagement
- Modeling
- Prompting
- Reinforcement

Treatment Strategies

- Cognitive/Behavioral Treatment
- Social Stories (Gray)
- Social Behavior Mapping (Garcia-Winner)
- Visual Supports
- Role playing
- Scripts
- Peer Mediated Interventions
- Video Modeling

OTHER IDEAS? QUESTIONS?

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Contact information

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THANK YOU!

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