

Prediction of Preschool Language and Attention Skills from Teacher and Parent Shyness Ratings

Kathleen Moritz Rudasill, Amanda Prokasky, Xiaoqing Tu, Scott Frohn, Kate Sirota, Victoria J. Molfese
University of Nebraska- Lincoln

2014 Occasional Temperament Conference
Saturday November 8th, 2014

UNIVERSITY OF NEBRASKA–LINCOLN

What is Shyness?



- a fear of unfamiliar social stimuli Coplan & Rubin, 2010
- a motivating force behind an individual's choice to withdraw from social interaction Coplan & Rubin, 2010
- Rooted in behavioral inhibition- a child's early tendency to withdraw from novel stimuli Kagan, Reznick, Snidman & Steven, 1988

Shyness in Children

- Linked to:
  - Poorer peer relations Rubin, Coplan & Bowker, 2009
  - Internalizing problems Rubin, Coplan & Bowker, 2009
  - Clinical anxiety Rubin, Coplan & Bowker, 2009
- Shyness in the classroom:
  - Demonstrate less complex language Crozier & Badawood, 2009
  - Poorer expressive and receptive vocabulary Crozier & Hostettler, 2003; Evans, 2010; Spere, Schmidt, Theall-Honey, & Martin-Chang, 2004
  - Less engaged in classrooms Hughes & Coplan, 2010
  - Less likely to act out, have conflictual relationships with teachers Rimm-Kaufman & Kagan, 2005; Rudasill & Rimm-Kaufman, 2009; Valiente, Swanson & Lemery-Chalfant, 2012

Parent vs. Teacher Ratings of Children's Shyness

- Parents
  - See children in variety of contexts, best able to judge child behavior in multiple situations, including unfamiliar ones Crozier & Badawood, 2009
  - May be motivated to depict children's behavior positively Garstein, Bridgett & Low, 2012
- Teachers
  - See behavior of multiple children, may be best able to judge child behavior in comparison to other children of the same age
  - Some evidence suggests teachers have negative perception of shy children, viewing them as less competent and more dependent Coplan, Hughes, Bosacki & Rose-Krasnor, 2011; Evans, 2001; Ladd & Burgess, 1999

Using Multiple Reporters of Children's Behavior

- Many researchers combine parent and teacher ratings
  - school liking Ladd & Dinella, 2009
  - positive & negative emotionality, self regulation Lengua, 2002
  - shyness Valiente, Swanson & Lemery-Chalfant, 2012

- May not be best practice, particularly for shyness, given low to moderate correlations
  - r = .26 to .38 Eisenberg, Shepard, Fabes, Murphy & Guthrie, 1998
  - r = .29 Crooks & Peters, 2005
  - r = .33 Valiente, Swanson, Lemery-Chalfant, 2012

Differential Conceptualizations of Shyness

- Parents and teachers view and rate shy behavior differently
  - Parents ratings of shyness
    - based on behavior around strangers Wang & Kemple, 1993
    - May reflect more temperamentally based wariness Eisenbert, Shepard, Fabes, Murphy & Guthrie, 1998
  - Teachers ratings of shyness
    - based on relationships with classroom peers Wang & Kemple, 1993
    - Reflective of social inhibition brought on by social evaluation Eisenbert, Shepard, Fabes, Murphy & Guthrie, 1998

Purpose of Present Study

- Examine parent and teacher ratings of shyness as they differentially predict children's vocabulary and attention skills in preschool

Method

- Participants:
  - 104 children (48 males) in 22 classrooms
  - 1 to 7 children in each classroom
  - Mean age 4.22 years (SD=.58)
  - 76.9% White, 12.5% mixed race
  - Average annual income: $65,000 - $75,000

- Parents and teachers rated children's shyness on the Children's Behavior Questionnaire CBQ; Rothbart, Ahadi, Hershey & Fisher, 2001
- Trained researchers administered language and attention measures
  - Peabody Picture Vocabulary Test PPVT-IV; Dunn 7 Dunn, 2007
  - Expressive Vocabulary Test EVT; Williams, 1997
  - Visual Attention Subtest of the NEPSY Korkman, Kirk & Kemp, 1998

Results

- Parent and teacher ratings of Total Shyness not significantly correlated (r =.18, *ns*)
- Teacher rated Total Shyness significantly correlated with PPVT scores (r = -.25, $p < .05$)

- Multi-level models revealed that
  - Parent rated Total Shyness did not predict PPVT, EVT, or NEPSY scores
  - Teacher rated Total Shyness negatively predicted PPVT, EVT, and NEPSY scores

Results

Results from multilevel models regressing PPVT, EVT, and NEPSY Visual Attention on parent and teacher ratings of children on the CBQ Shyness scale

	PPVT				EVT				NEPSY Visual Attention			
	Coefficient	Std. Error	t	df	Coefficient	Std. Error	t	df	Coefficient	Std. Error	t	df
Intercept	103.74	1.81	57.31***	19.53	103.09	1.59	64.95***	19.36	15.34	1.19	12.88	15.66
TS Parent	1.37	1.34	1.02	77.56	1.59	1.30	1.22	81.59	.85	.86	.99	73.91
TS Teacher	-3.92	1.44	-2.73**	86.79	-2.98	1.34	-2.22*	88.98	-1.91	.88	-2.16*	85.19

Post Hoc Analyses

- Exploratory Factor Analysis on 13 shyness items from CBQ
  - 2 factors: Shyness and Low Sociability

- Confirmed factor structure on NICHD Study of Early Child Care and Youth Development dataset (n=1,062 parents; n=812 teachers)
  - Parent ratings: $\chi^2 = 234.87$, $p<.001$, TLI=.88, CFI=.93, RMSEA=.09
  - Teacher ratings: $\chi^2 = 256.88$, $p<.001$, TLI=.88, CFI=.93, RMSEA=.09

2 Factor Structure of Shyness Items from CBQ

- Shyness Factor
  - *Gets embarrassed when strangers pay a lot of attention to her/him*
  - *Is sometimes shy even around people s/he has known along time*
  - *Sometimes seems nervous when talking to adults s/he has just met*
  - *Acts shy around new people*
  - *Talks easily to new people (rev)*
  - *Sometimes turns away shyly from new acquaintances*

- Low Sociability Factor
  - *Sometimes prefers to watch rather than join other children playing*
  - *Is comfortable in situations where s/he will be meeting others (rev)*
  - *Seems to be at ease with almost any person (rev)*
  - *Acts very friendly and outgoing with new children (rev)*
  - *Joins others quickly, even when they are strangers (rev)*
  - *Is comfortable asking other children to play (rev)*
  - *Seems completely at ease with almost any group (rev)*

Post Hoc Analyses

- Re-ran multilevel models regressing PPVT, EVT, and NEPSY scores on parent and teacher ratings of Shyness (S) and Low Sociability (LS)

	PPVT				EVT				NEPSY Visual Attention			
	Coefficient	Std. Error	t	df	Coefficient	Std. Error	t	df	Coefficient	Std. Error	t	df
Intercept	103.56	1.76	58.95***	18.22	102.88	1.59	64.77***	20.18	15.39	1.21	12.76***	15.22
S Parent	-.70	1.94	-.36	81.24	-2.16	1.81	-1.20	84.70	-.23	1.20	-.20	79.33
S Teacher	-2.96	1.90	-1.56	83.83	-.93	1.75	-.53	85.75	.78	1.18	.66	81.37
L-S Parent	2.10	1.96	1.07	82.04	3.81	1.84	2.08*	85.02	1.08	1.22	.89	79.48
L-S Teacher	-1.01	2.05	-.49	83.36	-2.39	1.79	-1.33	84.38	-2.85	1.19	-2.40*	73.91

- Parent rated Low Sociability predicted higher EVT scores
- Teacher rated Low Sociability predicted lower NEPSY scores

Discussion

- Teacher ratings of Total Shyness were better predictors of vocabulary and attention skills than were parents
- Examining the shyness items from the CBQ revealed two distinct factors
- Importance of obtaining measures of shyness from different sources and analyzing separately
- Importance of considering domain of outcome measure when deciding to use parent or teacher report

Limitations

- CBQ designed to capture wide range of temperament traits, may be less sensitive to measuring construct of shyness than other measures (e.g. Child Social Preference Scale, Coplan, Prakash, O'Neil & Armer, 2004)
- Teachers more likely than parents to indicate certain behaviors were not observed- more missing information from teachers
- Factor structure may be artifact of how shyness items on CBQ are worded
  - Only one item on Low Sociability factor was negatively worded
  - All but one item on Shyness factor were negatively worded

Future Directions

- Follow up with qualitative examination of parents and teachers interpretations of shy behaviors and shyness items from CBQ

- Future studies should include information about children's shyness from multiple sources (parents, teachers, direct observations by researchers)

- Examine rater discrepancies, keep ratings separate

Thank You!

