

Running head: Perception of Preschoolers' Behaviours

Title: A Comparison of Parent and Teacher Ratings of Child Behaviours: the Pygmalion Effect Revisited.

Authors: Bigras, Marc<sup>1</sup>; Gosselin, Catherine<sup>1</sup>; Capuano, France<sup>1</sup>; Normandeau, Sylvie<sup>2</sup>; Parent, Sophie<sup>2</sup>

<sup>1</sup> Université du Québec à Montréal

<sup>2</sup> Université de Montréal

#### Abstract

Early schooling experience is a reliable predictor of later school and professional adjustment. In the context of important investment made in the preschool curriculum to promote early academic achievement among children at risk of failure, the validity of screening and referring procedures is a rising issue. 384 children and their family participated in an 18 months longitudinal study from kindergarten to first grade. Results of the present study confirmed the value of screening protocol based on consensus between parents and teacher for greater attention to children needs. However, further results suggested that kindergarten' teachers might be considered as a unique and valid informant to predict early academic achievement.

This research was funded by the Fonds pour la recherche société et culture du Québec (FQRSC), Canada. Authors would like to thank children, families and schools for their participations.

### **A Comparison of Parent and Teacher Ratings of Child Behaviours: the Pygmalion Effect Revisited.**

Social competence and behavioural problems in childhood are stable enough to justify important investment in early evaluation and prevention programmes. For example, researchers have constantly reported that child's social behaviours and participation in programmes promoting social competencies are associated to actual, short term and long term school achievement, an important outcome according to most adults (Alvidrez & Weinstein, 1999; Bryan, 2005; Coie & Krehbiel, 1984; Feshbach & Feshbach, 1977; Gresham & Elliot, 1980).

Nowadays, the gold standard for screening and referring young children to intervention programmes rely on parents and teachers convergent information about early child's social capacities and vulnerabilities. For example, according to DSM-IV-TR (2004), symptoms in childhood are to be observed in two contexts such as at home and school to diagnose behaviour disorders. Consensus among parents and teachers on child's problems are also criteria for his/her participation in prevention programmes of such as Fast Track (CPPRG, 2004) and Fluppy (Capuano et al. 2004). This assessment strategy comes from 40 years of researches in which parent and teacher were founded to be reliable, valid, and somewhat complementary informants (Bishop et al., 2003; Culp, Culp & Blanketmayer, 2001). This conclusion does not imply that parent and teacher are likely to agree about the child's problems. Indeed, inter-rater correlations in most researches are moderated, weak or even absent (mean correlation of .28, according to Achenbach's meta-analysis; 1987), and parents tend to report significantly more problems and less social competences than teachers (Briggs-Gowan et al. 1994). This

intriguing discrepancy might merely reflect that parents and teachers observe children in different context and have different expectation according to their specific role as a caretaker (Renk & Phares, 2004; Wrobel & Lachar, 1998). Nonetheless, since disagreement is more likely to be observed among teachers and parents, important questions remain for clinicians and researchers: are children still vulnerable when caretakers disagree on their difficulties? Is information from one or another caretaker better when considering specific social behaviour or their expected outcomes?

We know very little about the relative value for information collected from parent and teacher, which is determinant to understand the possible implication of divergences. Indeed, we found only two researches that compare evaluations of parents and teachers to external criteria in order to compare their respective qualities. Firstly, a 10 years longitudinal study of Achenbach et al. (1998) report that, with regard to assessment of behaviours difficulties of preschoolers, parents and teachers are equally good « predictors » for futures psychological disorders such as .... Secondly, another longitudinal study of Authors (199), conclude the early assessment of teacher is superior to predict long-term self-perception of adolescent students.

Disagreements among caretakers might have important implications for clinicians or researchers, but it is certainly an important issue from child's perspective. Adults communicate in some way their evaluation to the child about how « good » or « bad » are their behaviours and the extent to which they are expected. This evaluation can influence the child in various ways. First, valid perception of child's behaviour might lead sensitive adults to coherent response in a day-to-day interaction or in more structured fashion, like in prevention programmes or schooling, for competence consolidation or

difficulties remediation. The child would also benefit from adult's clear communication of valid perception to adopt behaviour more conform to normative expectancies (Izard, 2002). Conversely, biased or inaccurate adult's perceptions are potentially harmful for children. Although, biased perceptions would be beneficial to the child when positive (e.g. better adult's sensitivity, scaffolding, or modeling), adult's negative biased perceptions appears to be the worst scenario for the child. Child might suffer from stigmatisation and inadequate caring founded on biased negative perceptions that are likely to emerge from psychologically troubled, unavailable or erratic caretakers.

Numerous studies have showed that stressed, depressed or mentally ill adults are likely to have negative perception of children, which in turn is likely to be associated to children behaviours. For example, compared to non-depressed mother's depressed mothers tend to describe their child as more disturbing (Fergusson, Lynskey &, Horwood, 1993; Briggs-Gowan et al. 1994) and longitudinal studies tend to confirm the « biased » hypothesis when observing that depressed mood and negative perception from parents and related to greater difficulties for their child overtime (Nagam et al. 2000; Towers, 2000; Youngstrom, 2001). In the same token, parenting stress, define in part as the result of the negative assessment of their child (Abidin, 1996; Bigras, LaFreniere & Dumas, 1996), is associated repeatedly to child's social competencies or difficulties (Bigras, 1994). Although data obtained from other adults perceptions such as teachers are much fewer, they are leading about the same results. For example, stressed and depressed teachers perceived their students as more turbulent, aggressive and defiant (Friedman, 1995). Conversely, many studies on the impact of perception and expectation of teachers suggested that positive evaluation of student's behaviours induce positive

teaching and, consequently, student achievement. This process is best known as the Pygmalion effect (see review from Tenenbauma & Ruck, 2007).

Since evaluators are unlikely to share the same negative biases, discrepancies among them about child behaviour might reflect little or conflicting communication. Recent studies shows that a good communication between teachers and parents is related to school achievement (Reynolds, 1994) and potentially involved in resiliency of underachievers (Poulin, 2005; Rimm-Kaufman & Pianta, 2005).

The objective of the present study was to compare early academic achievement of children that caretakers disagree/agree about their early social competencies or behavioural problem observed in preschool. We posited that school achievement is highly contrasted when teachers and parents agreed, namely highly positive when there were a consensus about child's social competency and, conversely, highly negative when the child is evaluated with behavioural difficulties by both raters. Although, we do not have specific hypothesis for children for whom their caretakers disagree about their behaviours, we intend to focus on variable such as parenting stress and expectation in order to understand possible bias that might affect child's school achievement.

## **Method**

### **Participants**

384 children, 178 boys and 206 girls, and their family participated in an 18 months longitudinal study from kindergarten to first grade. Children at preschool had 67 months (S.D. 3.63) and 85 months at end of first grade. Families were recruited from rural and semi urban kindergartens of the region of Sherbrooke, Quebec, a community of 100,000 inhabitants. From Statistics Canada standards, family income was considered

poor for 40% of the sample, middle class for 36 % and upper class for 24%. The sample was composed of 86 % intact families.

#### Procedures

The first stage of this longitudinal study consisted in an evaluation of child's behaviour by teachers and parents at the beginning of kindergarten. At this stage, school readiness was evaluated from kindergartners and parents were also invited to fill a sociodemographic questionnaire and reports about their stress and expectations toward child achievement.

#### Measures

*Academic performance at end of first grade.* Scores were computed from performances of first grade students on three academic tests; reading, writing, and mathematics. Teacher also reported student's academic performance on the same three dimensions using a six point LIKERT scale (clearly under-achiever to clearly superior-achiever). The construction of the French and the mathematics sub-tests were inspired from school program approved by the Quebec Minister of Education. Results to tests and teachers evaluations were standardized and summed to obtain two global scores for each assessment approach. IQ measure at preschool were significantly and positively associated to these global scores (Bigras et al. 2002).

*Behavioural assessments at preschool age.* The Social Competence and Behaviour Evaluation- Short Form (SCBE-30). The original instrument (SCBE-80) was reduced to 30 items thus maintaining the three original factors found for the teacher (LaFreniere & Dumas, 1996) and parent versions: *Social Competence (SC)*, *Anger-Aggression (AA)*, *Anxiety-Withdrawal (AX)*. SC refer to child manifestation of

cooperation and working in groups skills while AA and AX grouped potentially difficult behaviours such as verbal or physical aggression, turbulence, low threshold of frustration, whining, solitary or inhibited tendency of child in classroom or at home. The short version filled by teachers proved reliable ( $r = .78$  to  $.91$  across four samples) and stable over time ( $r = .63$  to  $.86$  across three samples). It also showed a good internal consistency (Cronbach's alphas ranging from  $.77$  to  $.92$  across all samples and scales) and the inter-rater agreement was high ( $r = .78$  to  $.91$  across three samples). The same version filled by parents proved in the same way reliable and valid.

*Lollipop Test.* Chew (1981) developed a measure of school readiness for preschoolers and consists in exposing the child to stimulus cards and asking to point specific colors, forms, letters or numbers. This instrument appears to be a better predictor of later school success than measures such as the WPPSI-R and is related moderately to SCBE (Venet et al., 2001). The translation procedure from English to French was straightforward due the factual aspect of the instrument.

*Parenting Stress Index.* This instrument provides an empirically derived measure of the degree of stress that a parent experiences in the childrearing role (Abidin, 1990). The French translation of the instrument was back-translated and compared to the original version to ensure linguistic equivalence. Internal consistencies of the parent scales of both versions were excellent, and factor loadings for subscales of the French version were comparable to the original English version (Bigras, LaFreniere & Dumas, 1996).

**Results**

We applied two analytic strategies to understand possible implication for children of congergent/divergence of point of view between teachers and parents. First, we tested correlations with the whole sample common hypotheses found in literature about 1) the convergence between caretakers and 2) the extent to which parent and teachers reports same level of social competencies and behaviour problem in children. Second, with subsamples, we tested the hypotheses of the possible impact of divergence/convergence in children by contrasting parents and teachers that strongly agree or disagree about child's behaviours.

As reported in most studies, the correlations between parent's and teacher's assessments of social competencies and behavioural difficulties such as anger-aggression and anxious-withdrawn in the actual sample are significant but moderated (see table 1 :  $r= .27$  to  $.37$ ). Parent and teachers tend to agree, especially when describing anxious-withdrawn behaviours with preschoolers.

Table 1. Correlations between reports of teachers and parents about child's social competence and behaviours difficulties (N=388)

	Anger- Agression parent	Anxious- withdrawn parent	Social competence parent
Anger-aggression teacher	.30***		
Anxious-withdrawn teacher		.37***	
Social competence teacher			.27***

When comparing means of social competencies and behavioural difficulties, t-tests revealed a significant difference between caretakers (table 2). Parents tend to report

more anger-aggression than teachers when describing kindergartners. No differences were found about reports of social competencies and anxious withdrawn behaviours.

Table 2. Means and Standard Deviation of Social Competence and Behaviour Evaluation Scales (SCBE) According to Caretakers (N=384)

Measures	Parents		Teachers		T
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
SCBE scales					
Social competence	4.40	0.61	4.35	0.82	1.11
Anger-Aggression	2.45	0.63	1.81	0.79	14.19***
Anxious-Withdrawn	2.04	0.51	2.08	0.74	-0.95

Since results obtained from our sample appeared to be similar to previous studies, we planned to contrast schooling outcomes for groups of children in which their caretakers agree or not about their early behaviours. A trichotomized split of SCBE scales (SC, AA, AX) in high, moderate and low scores lead to created four contrasted parent/teacher pairs: 1- agreement high/high, 2- disagreement high/low, 3- disagreement low/high and agreement low/low. ONEWAYs were performed to test significant mean differences and post-hoc differences for each parent/teacher pairs (Bonferroni,  $p < 0,05$ ). Overall result showed, as expected, a greater contrast in child's academic achievement when their teacher and parent agree or social competencies or difficulties. Results reveal also unexpected results about pairs that do not agree: academic achievement vary significantly for children in pairs in function of teacher perception of high competencies or difficulties. In other words, parent's perception of their kindergartner was not related to the later academic performance if the teacher does not agree on same behaviours.

Table 3. Differences Between Academic Achievement for Four Groups of Students According to Caretakers Agreement/Disagreement on Social Competence and Behaviors Evaluation (SCBE) at Preschool Age

<u>SCBE</u>										
	1 Parent+/ teacher+		2 Parent-/teacher+		3 Parent+/teacher-		4 Parent-/ teacher-		F	post- hoc Bonf
<u>Social Competence</u>										
	n=58		n=30		n=35		n=73			
Lollipop	51.4	10.8	51.6	10.8	43.6	12.5	42.0	12.9	9.23***	1,2>3, 4
Tests	72,4	13.0	71,3	10.6	62,5	19.0	61,0	18.4	6.00***	1,2>4
Teacher assessment	4,0	1.2	3,8	1.0	3,1	1.4	3,1	1.2	5.13**	1>3,4
Parenting Stress	69,9	14.3	82,0	15.8	76,7	14.0	86,8	15.7	14.12***	2,4>1 4>3
<u>Anger-Aggression</u>										
	n=72		n=43		n=47		n=68			
Lollipop	50.7	12.4	50.3	10.7	46.9	10.3	45.0	12.3	3.50*	1>4
Tests	71,3	15.8	71,3	11.8	66,6	16.1	64,8	18.0	2.31 <sup>†</sup>	
Teacher assessment	3,8	1.38	3,8	1.20	3,4	1.13	3,5	1.40	1.20	-
Parenting Stress	67,5	11.2	85.3	13.3	70.7	13.5	88.6	14.5	39.40***	2,4>1,3
<u>Anxious-Withdrawn</u>										
	n=68		n=40		n=35		n=80			
Lollipop	51.1	11.0	53.2	8.8	45.0	13.5	45.3	11.6	6.81***	1,2>3,4
Tests	72,7	11.4	75,3	12.1	63,6	19.3	65,5	17,7	5.61***	2>3,4
Teacher assessment	3,9	1.23	4,2	0.78	3,3	1.33	3,4	1.30	4.83**	2>4
Parenting Stress	70,7	13.1	82,1	15.0	67,3	13.3	83,9	13.8	19.04***	2,4>1,3

## Discussion

Early schooling experience is a good predictor of later school and professional adjustment. In the context of important investment made in the preschool curriculum in Western countries to promote early academic achievement among children at risk of failure, the validity of screening and referring procedures is a rising issue. Results of the present study confirm the value of screening protocol based on consensus between parents and teacher for greater attention to children needs. However, further results of the present suggest that teacher at the kindergarten level might consider as a unique and as well valid informant to predict school readiness or future academic achievement.

Our results are in line with Achenbach's (1989) meta-analysis showing a moderate positive correlation between parents and teacher perception of child behaviours and to others studies reporting that parents are likely to report more difficulties than teachers. Although these results might be interpreted as a rather weak consensus among parents and teachers, contrasting groups shows that they are likely to agree on extremes cases. Indeed parent-teacher dyads that agree that the child is socially very bad or very good (groups 1 and 4) are about twice as important in numbers as dyad that clearly disagree (groups 2 and 3).

Contrasting agreement/disagreement situations lead to result that are not merely reflecting the « context related assessments » effect. This hypothesis posits that parents and teachers might disagree about child's behaviour but are valid observers since they are reporting behaviours from different contexts. When we questioned in the present study the validity of assessment with respect to later school achievement, teachers appeared to be superior. For example, when evaluation of social competency from teacher is positive,

actual school readiness or later school achievement is high despite negative evaluation of parent. On the contrary, school achievement is significantly lower compare to other groups when teacher assessment of child's behaviours is low, despite positive evaluation from parents. The pattern of results was observed for anxious-withdrawn behaviours. Parent assessment might tap important manifestation of their kindergartner at home, but not in terms of which are associated to school adjustment.

The hypothesis of negative bias is often evoked to explain parent-teacher discrepancies. This hypothesis posits that perception is influenced by personal of environmental factors. Our results support this hypothesis: parents report higher personal stresses when evaluating negatively their child either lower social competency, high aggressive or anxious behaviours. Thus, stressed parents might be unable to perceive accurately their child competencies as in group 2. Interestingly, stressed parents in our study are accurate in evaluating child problem, like in group 4, which suggest that bias concern positive rather than negative assets of child. However, positive bias of parent appeared in our study not to be as positive as one might expect: group 3 represents non stressed-positive parent but with children the lower school achievement. Further researches should rule out the possible unawareness of child characteristics, social desirability or defensive responses of parent that can explain their highly positive evaluation that is not related to school outcomes.

## References

- Alvidrez & Weinstein (1999). Early teacher perception... *Journal of educational psychology*, 91(4)
- Bryan, T. (2005) Science based advances... *Learning disability quarterly*. 28
- Coie & Krehbiel (1984). Effect of academic. *Child Development*, 55
- Fergusson DM, Lynskey MT, Horwood LJ (1993), The effects of maternal depression on maternal ratings of child behavior. *J Abnorm Child Psychol* 21:245-269
- Friedman, I. A. (1995). Student behavior patterns contributing to teacher burnout. *Journal of Educational Research*, 88, 281-289.
- Najman, J.N. Williams, G.M., Nikles, J. S. Spence, Bor, W., and O'Callaghan, M., *et al.*, (2000). Mothers' mental illness and child behavior problems: Cause-effect association or observation bias? *Journal of the American Academy of Child and Adolescent Psychiatry* **39**, 592-602.
- Krain, A.L. & Kendall, P.C. (2000). The role of parental emotional distress in parent report of child anxiety, *Journal of Clinical Child Psychology* 29, pp. 328-335.
- Piacentini JC, Cohen P, Cohen J (1992), Combining discrepant diagnostic information from multiple sources: are complex algorithms better than simple ones? *Journal of Abnormal Child Psychology* 20:51-63
- Renk & Phares (2004). Cross-informant... *Clinical psychology review*,24
- Richters JE (1992), Depressed mothers as informants about their children: a critical review of the evidence for distortion. *Psychological Bulletin*, 112, 485-499
- Rimm-Kaufman, S. & Pianta, R. (2005). Family-School Communication in Preschool and Kindergarten in the Context of a Relationship-Enhancing Intervention. *Early Education and Development*, 16, pp. 287-316
- Rosenthal, Robert & Jacobson, Lenore *Pygmalion in the classroom* (1992). Expanded edition. New York: Irvingto
- Tenenbaum, H. & Ruck, M. (2007). Are teachers' expectations different for racial minority than for European American students? *A meta-analysis. Journal of Educational Psychology*. 99, pp. 253-273.
- [Tretler & Epkins \(2003\)](#) C.M. Tretler and C.C. Epkins, Are discrepancies among child, mother, and father reports on children's behavior related to parents' psychological

symptoms and aspects of parent–child relationships?, *Journal of Abnormal Child Psychology* **31** (2003), pp. 13–27.

Wrobel & Lachar, 1998. Validity of self... *Psychology in the schools*, 35.