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Disruptive Boys with Stable and Unstable High Fighting Behavior Patterns During Junior Elementary School

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Boys' fighting was assessed at ages six, eight, and nine. The boys (N = 69) had been selected from the 30% most disruptive children in kindergartens from low socioeconomic neighborhoods. Twenty-three percent of these disruptive boys were rated as high fighters on three assessments ("stable high fighters"), and 28% were rated as high fighters on two of the three assessments ("variable high fighters"). Forty-two percent were rated as high fighters only one out of three assessments ("occasional high fighters") and 7% were never rated as high fighters. Only high fighting in two successive years significantly increased the risk of being rated a high fighter in a following year. At age 10, stable high fighters (high fighters at ages 6, 8, 9) were perceived by teachers, peers, mothers, and the boys themselves as more disruptive and more antisocial than occasional high fighters. These results show an impressive self-other agreement in boys who have adopted a physically aggressive life style from an early age. The three groups did not differ on individual family demographic characteristics, but stable high fighters had a higher mean on an index of family socioeconomic disadvantage. Results indicate that the aggression scales which

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include only a few physical aggression items and many disruptive items (oppositional behavior, rejection, hyperactivity, inattention, etc.) probably aggregate two kinds of disruptive boys, the high-frequency fighters at high risk for stable disruptive, physically aggressive, and antisocial behaviors, and the disruptive low-frequency fighters who are at a lower risk of stable disruptive behavior and at a lower risk of early antisocial behavior.

A number of longitudinal studies have shown that aggressive behavior in males is relatively stable over time (Huesmann, Eron, Lefkowitz & Walder, 1984; Loeber, 1982; Olweus, 1979; Rushton & Erdle, 1987). However, for most of these studies, stability indices are based on data collected at only two points in time and give the impression that there is an aggressivity trait which applies to all those who have a high aggression score at both points in time. One can imagine that within a group of individuals who have been assessed as relatively aggressive at two points in time, part of that group would have been consistently rated as aggressive over the years whereas another part of that group would have been rated as aggressive "off and on" and happen to have been rated aggressive at the time of follow-up. The only way to differentiate between "stable aggressives" and "unstable aggressives" over time would be to regularly monitor the behavior of a given group of subjects. While this stability problem is relevant from a theoretical perspective, it is most important from a practical point of view. For example, preventive interventions with high risk children need to be based on probability estimates of future behavior; from a cost-benefit perspective it is important to know the number of data points needed at the time of prediction to obtain an optimal probability estimate for the outcome. It could be expected that the stability of aggressive behavior for the individuals at the extreme of the continuum would be greater than for the rest of the population and would be underestimated by time 1–time 2 correlations with normative samples (Mischel, 1984).

Aggressive behavior in young males has also been shown to be a good predictor of a range of social maladjustments (Huesmann, Eron, Lefkowitz & Walder, 1984; Roff & Wirt, 1984; Tremblay, LeBlanc & Schwartzman, 1988). These studies are generally based on data collected only at two distant points in time. They have two other relevant problems. First, from a theoretical perspective, if aggressive behavior is stable and is consistently highly correlated with a number of other social maladjustments, this may indicate that it is part of an underlying "social maladjustment" factor from which it may be impossible to distinguish. Second, from a measurement perspective, most rating scales completed by teachers, mothers, or peers contain an aggression scale which includes aggressive

behaviors, but they also include many other types of inadequate behaviors such as: oppositional acts (e.g., disobedience), covert antisocial behaviors (e.g., lying, stealing) and hyperactive behaviors (e.g., restless, irritable). The Child Behavior Checklist (CBCL, Achenbach & Edelbrock, 1983), which is extensively used for parent's rating of their children's behavior, is a good illustration. It has an aggression scale consisting of 23 items which includes only three items that relate clearly to physically aggressive behaviors (fights, attacks people, threatens). The same instrument developed for teachers (Achenbach & Edelbrock, 1986) has a 38 item aggression scale which also includes only these three physically aggressive items. Similar instruments used for peer ratings have the same discrepancy between the aggressivity label given to a set of items and the content of the items: The Pupil Evaluation Inventory (PEI; Pekarik, Prinz, Liebert, Weintraub, Neale, 1976) contains two physically aggressive items in its 20 items "aggression" scale (those who start a fight over nothing, those who say they can beat everybody up), and the Peer Nominated Index of Aggression (Lefkowitz, Eron, Walder & Huesmann, 1977) also has only two physically aggressive items in its 10 item scale (who starts a fight over nothing, who pushes and shoves children).

This approach to defining and measuring aggression often leads to confusion; are we observing continuity of aggressive behavior or continuity of deviant, troublesome behavior, which in a number of subjects may be expressed through physical aggression, but in other subjects is either absent or infrequent? A clear definition of aggression is yet to be had (Parke & Slaby, 1983), but descriptive studies of relatively unambiguous components of that construct may clarify the general concept. Cairns, Cairns, Neckerman, Ferguson and Gariépy (1989) addressed a number of these limitations. By using multiple measures of aggression on a yearly basis, from age 10 to 15, they have shown that the growth trajectories of aggressive behaviors vary according to the behaviors which are assessed, the sex of the subjects and the category of assessor (teachers, peers, self). Of interest for the long term prediction of male violence they found a developmental persistence of physical attacks for male–male conflicts and found that teacher ratings were efficient and more economical predictors than peer or self ratings.

This study was an attempt to address these issues with younger boys (aged 6 to 10) within a sample who was assessed as disruptive in kindergarten, and thus was at risk of future psychosocial maladjustment. The first aim of the study was to assess the stability of frequent fighting between ages six and nine years. Second, to examine the extent to which stable and non-stable frequent fighting boys, from age six to age nine, were showing different types of maladjustments at age 10. Finally, because aggressive behavior has often been associated with family characteristics (Farrington,

1991; Loeber & Stouthamer-Loeber, 1986; McCord, 1986) we tried to identify family demographic indices which could discriminate between the groups of boys.

METHOD

Subjects

The 69 subjects of this study were part of a larger longitudinal study being conducted in Montreal. In the spring of 1984, 1161 boys from kindergartens in low socioeconomic areas were rated by their teachers with the Social Behavior Questionnaire (SBQ). To control for potential culture and socioeconomic factors, only boys with francophone parents born in Canada who had less than 15 years of schooling were included. The boys with a score above the 70th percentile on the disruptive scale of the SBQ were randomly distributed to treatment, control, or observational groups. Subjects for this study are those from the observational group who were rated by their teachers four out of five succeeding years (1984 to 1988). In the spring of 1984 mean mother and father age were 30.6 (SD = 4.3; range = 24 to 39) and 32.6 (SD = 5.1; range = 24 to 47), respectively. Mean years in school for mothers was 10.5 (SD = 2.0, range = 3 to 14) and 10.0 (SD = 2.3, range = 3 to 14) for fathers.

Procedures and Instruments

The behavior of the boys was rated by teachers and mothers using the Social Behavior Questionnaire (SBQ). This rating scale includes 28 items from the Preschool Behavior Questionnaire (Behar & Stringfield, 1974; Tremblay, Desmarais-Gervais, Charlebois & Gagnon, 1987) which is an adaptation of the Children's Behavior Questionnaire (Rutter, 1967), and 10 items from the Prosocial Behavior Questionnaire (Weir, Stevenson & Graham, 1980; Weir, & Duveen, 1981). The 38 item questionnaire was factor analysed using the total sample of boys in kindergarten (N = 1159) and age 10 (N = 941). Results (Table I) showed that there were four stable orthogonal factors: disruptive (13 items), anxious (5 items), inattentive (4 items) and prosocial (10 items). To obtain a physical aggression assessment, a fighting score was derived by using three items from the disruptive factor: fights with other children; kicks, bites and hits other children; bullies or intimidates other children. The internal consistency for this score was assessed with Cronbach's Alpha at age 6 (kindergarten) and age 10 for the

Table I. Principal Component Structure of the Social Behavior Questionnaire Rated by Teachers at Ages 6[a] and 10[b]

	Disruptive		Anxious		Inattentive		Prosocial	
	Age 6	Age 10	Age 6	Age 10	Age 6	Age 10	Age 6	Age 10
1. Bullies	.82[c]	.80						
2. Kicks, bites, hits	.82	.73						
3. Fights	.82	.78						
4. Disobedient	.76	.73						
5. Blames others	.73	.76						
6. Irritable	.72	.75						
7. Destroys	.67	.60						
8. Restless	.66	.60						
9. Inconsiderate	.65	.64						
10. Tells lies	.62	.65						
11. Squirmy	.62	.58			.42			
12. Doesn't share	.61	.46						
13. Not liked	.54	.59						
14. Fearful			.68	.64				
15. Distressed			.65	.74				
16. Worried			.56	.66				
17. Solitary			.53	.51				
18. Cries			.47	.56				
19. Inattentive					.75	.77		
20. Poor concentration					.66	.69		
21. Stares into space					.62	.70		
22. Gives up		.43			.55	.50		
23. Comforts upset child							.81	.82
24. Helps sick child							.81	.81
25. Helps hurt child							.78	.76
26. Praises other							.75	.68
27. Helps task difficulty							.73	.71
28. Helps clear up mess							.70	.64
29. Shows sympathy							.69	.67
30. Invites bystander							.66	.69
31. Stops quarrels							.63	.60
32. Helps pick up objects							.62	.69
33. Twitches								
34. Speech difficulty								
35. Bites fingers								
36. Stutters								
37. Soiled self								
38. Fussy								
% Variance	23.8	23.6	3.4	6.5	7.0	3.5	12.4	11.9

[a]N = 1159.
[b]N = 941.
[c]Loadings < .40 omitted.

whole sample. In kindergarten the Alpha value was .86 for 1155 subjects. At age 10 the Alpha value was .86 for 991 subjects. Test–retest reliability was checked with a random subsample of 7–8 year old boys. Teachers (N = 90) and mothers (N = 85) were asked to respond to the SBQ twice within a two month period. Correlation coefficients indicated relatively high test–retest reliability for teachers' ratings of fighting (r = .74), disruptiveness (r = .79), anxiety (r = .66), inattention (r = .78) and prosociality (r = .55). Test–retest reliability was similar for mother ratings (r = .69 for fighting, r = .75 for disruptiveness, r = .62 for anxiety, r = .73 for inattention, and r = .76 for prosociality). Correlations between age 6 and 10 assessments for the whole sample (N = 994) indicated that the fighting, disruptive and inattentive scores were relatively stable over time (r = .37 for fighting; r = .47 for disruptive; r = .33 for inattentive) while the anxiety and prosocial scores were much less stable (r = .20 for anxiety; r = .23 for prosocial). Thus the psychometric properties of the 3 item measure of physical aggression appear as adequate as the 13 item disruptive scale and are similar to the properties of the 3 item aggression scale rated by teachers which Cairns et al. (1989) have used with 10 to 15 year old children. Each item was scored on a 0 to 2 scale (0 for a "does not apply" response, 1 for a "sometimes" response, and 2 for a "frequent" response). Those scoring from three to six (i.e., above the 85th percentile) on the fighting items were designated high fighters, those scoring less than three were designated low fighters (Loeber, Tremblay, Gagnon, & Charlebois, 1989). The Pupil Evaluation Inventory (PEI; Pekarik, Prinz, Liebert, Weintraub & Neale, 1976) was used at age 10 to obtain a peer and self-rating of behavior. The PEI yields three factors similar to the SBQ: aggression (disruptive)(20 items), withdrawal (anxious)(9 items), and likability (prosocial)(5 items). At age 10 a self-reported antisocial behavior questionnaire was also used (LeBlanc & Fréchette, 1989). The 27 items include the frequency of four categories of antisocial behaviors: theft (11 items), fighting (7 items), vandalism (6 items), alcohol and drug use (3 items).

The measurement of family characteristics which could be associated with stable high fighting was guided by the ease of obtaining information in routine data collection procedures in the schools. This excluded assessments of family functioning postulated as a cause of aggressive behavior (McCord, 1986; Patterson, 1982). Information on early parenting, low parental education, low status occupation, and broken homes, often associated with child aggression (Farrington, 1991; Loeber & Stouthamer-Loeber, 1987; Morash & Rucker, 1989) was obtained by a telephone interview with the mothers (at the end of the kindergarten year). These variables were combined into an index of family socioeconomic disadvantage in the following way. Parental age at birth of first child, number

of years in school, and occupation[4] were each given a score of one if a parent was in the lowest 30th percentile, and a score of zero was given if the parent scored above the 30th percentile, using as reference the original 1161 family sample. A zero–one dichotomy was also created for family structure: a score of zero was given to each boy who was living with his two biological parents and a score of one was given to all others. The maximum adversity score for boys living with their two biological parents was six: two points for mother and father being among the 30% youngest parents, two points for mother and father being among the 30% with few years in school, two points for mother and father being among the 30% with the lowest socioeconomic index.[5] The maximum adversity score for a boy living with a biological parent and a step-parent was seven, while the maximum adversity score for a boy living alone with his mother was four: One point for living in a broken home and three points for being in the lowest 30th percentile on age, years in school and socio-economic level. In order to create one scale for all boys, scores for those living with two parents were divided by seven and scores for those living with a single parent were divided by four.

RESULTS

The evolution of fighting behavior assessed at ages six, eight and nine years is presented in Table II. Fifty-one percent of the boys (N = 35) were rated as high fighters at least two points in time. Less than half (N = 16) of these boys (23% of the sample) were rated as high fighters at each of the three assessments (stable high fighters). The other 19 boys (28% of the sample) were rated as high fighters on two of the three assessments (variable high fighters). Forty-two percent of the sample (N = 29) were rated as high fighters on only one assessment (occasional high fighters), and 7% (N = 5) were never rated as high fighters.[6] It should be noted that if the study of the stability of high fighting had been limited to two successive years (6 to 8, 8 to 9) the estimate of stability would have varied from 29.0% to 30.4%. The conditional probability of being a fighter at age 8 and at age 9 from high or low fighting at an earlier age was computed to obtain an index of stability. Results presented in Table III show that high fighting in a given year (age 6 or age 8) does not predict high fighting

[4]Occupations were transformed to a socioeconomic index for Canadians (Blishen & McRobert, 1976).
[5]Those not working were automatically put in the lowest 30th percentile.
[6]Those who were never high fighters were dropped because their number was too small for further analyses.

Table II. The Evolution of Fighting from Kindergarten to Age 9 for Boys Rated Among 30% Most Disruptive in Kindergarten

	Ages					
	6	8	9	N	Total N	%
Stable high fighters	H[a]	H	H	16	16	23
Variable high fighters	H	L[b]	H	10		
	H	H	L	4	19	28
	L	H	H	5		
Occasional high fighters	H	L	L	14		
	L	H	L	7	29	42
	L	L	H	8		
Not high fighters	L	L	L	5	5	7
Total						
H	44	32	39		69	100
L	25	37	30			

[a]H = high fighters.
[b]L = low fighters.

in a following year (age 8 or age 9). However, high fighting in two successive years predicts fighting the following year. Eighty percent of the boys who were high fighters at age 6 and 8 were also high fighters at age 9, while only 47% of those who were not high fighters at age 6 and 8 were high fighters at age 9 ($z = 2.87$, $p < .01$).

The next step was to show that differences in stable high fighting between kindergarten and age nine results in differences in maladjusted behavior at age 10. Table IV presents the results for behavior assessments by teachers, mothers, peers and the boys themselves at age 10. For each of these assessments, items relating to fighting were deleted in order to

Table III. The Prediction of High Fighting at Age 8 and Age 9 from High Fighting at an Earlier Age[a]

		High fighting			
		Age 8		Age 9	
Level of prior fighting	N	P	(Z)	P	(Z)
Age 6: high fighers	44	.45	(0.25)	.59	(0.64)
others	25	.48		.52	
Age 8: high fighters	32			.66	(1.70)
others	37			.49	
Age 6 and 8: high fighters	20			.80	
others	49			.47	(2.87)[b]

[a]Base rate at age 6 = .64; at age 8 = .46; at age 9 = .57.
[b]$p < .01$.

Table IV. Differences in Adjusted Mean[a] Behavior Assessments at Age 10

		Stable high fighters	Variable high fighters	Occasional high fighters	F
Disruptive[b]					
Teachers	M	11.13	9.74	6.59	4.79[d]
	N	(15)	(19)	(29)	(S > O)[c]
Mothers	M	10.52	9.50	7.21	4.20[e]
	N	(15)	(17)	(27)	(S > O)
Peers	M	1.55	0.80	0.39	9.55[f]
	N	(14)	(19)	(29)	(S > O,V)
Self	M	0.99	0.53	0.18	3.14[e]
	N	(14)	(19)	(29)	(S > O)[g]
Anxious					
Teachers	M	4.06	4.46	4.43	0.13
	N	(15)	(19)	(29)	
Mothers	M	5.00	5.08	4.27	0.55
	N	(15)	(17)	(27)	
Peers	M	0.29	0.07	0.31	0.45
	N	(13)	(19)	(28)	
Self	M	0.20	0.03	0.34	0.58
	N	(13)	(19)	(28)	
Prosocial					
Teachers	M	4.51	5.61	7.2	1.66
	N	(15)	(19)	(29)	
Mothers	M	10.88	11.23	10.85	0.04
	N	(15)	(17)	(27)	
Peers	M	0.31	−0.33	−0.38	0.05
	N	(13)	(19)	(28)	
Self	M	0.04	−0.05	−0.16	0.1
	N	(13)	(19)	(28)	
Inattentive					
Teachers	M	5.50	5.54	4.26	2.05
	N	(15)	(19)	(29)	
Mothers	M	4.5	3.84	3.72	0.73
	N	(15)	(17)	(28)	

[a]Adjusted (ancova) by using corresponding age 6 teacher assessment.
[b]Fighting items in SBQ disruptive scale and PEI aggressivity scales were not included in these analyses.
[c]A posteriori comparisons between groups with Scheffé procedure ($p < .05$). S = stable, V = variable, O = occasional.
[d]$p = .01$.
[e]$p = .05$.
[f]$p = .000$.
[g]$p = .100$.

obtain an index of disruptive behavior unconfounded with fighting behaviors. Means at age 10 were adjusted (ancova) by using age six teacher assessments on the corresponding variables in order to control for the in-

Table V. Differences in Mean Self-Reported Antisocial Behavior at Age 10

		Stable high fighters (N = 15)	Variable high fighters (N = 19)	Occasional high fighters (N = 28)	F
Fighting	M	13.00	10.53	9.82	5.32[a]
	SD	(4.31)	(2.06)	(2.87)	(S > O)[c]
Theft	M	15.07	14.05	13.21	1.95
	SD	(3.77)	(2.17)	(2.92)	
Vandalism	M	8.13	7.53	7.04	1.88
	SD	(2.62)	(1.31)	(1.50)	
Alcohol and drugs	M	4.40	3.58	3.79	2.19
	SD	(1.24)	(1.12)	(1.17)	
Total antisocial	M	40.60	35.68	33.86	4.31[b]
	SD	(10.14)	(4.57)	(6.81)	(S < O)

[a] $p < .01$.
[b] $p < .02$.
[c] A posteriori comparisons between groups with Scheffé procedure ($p < .05$). S = stable, O = Occasional.

itial level of disruptive behavior.[7] Table IV shows that stable high fighters (fighters at age 6, 8 and 9), according to teachers', peers', mothers' and self-ratings, were significantly more disruptive than occasional high fighters. The stable high fighters also tended to score as more disruptive than the variable high fighters and the latter tended to be assessed as more disruptive than the occasional high fighters. In the case of peer assessments, the stable high fighters were significantly more disruptive than both the variable and occasional high fighters. No significant differences were observed for the assessment of anxious and prosocial behavior by teachers, mothers, peers and the boys themselves at age 10. Also, no significant differences were observed for inattentive behaviors rated by teachers and mothers at age 10.

Results of the self-reported antisocial behavior assessment are shown in Table V. Stable high fighters scored significantly higher on self-reported fighting than the occasional high fighters (Means: 13.00 vs. 9.82; F = 5.32, p = .01). There were no significant differences between the three groups for the other categories of self-reported antisocial behavior (theft, vandalism, alcohol and drugs), but in each case the stable fighters had a higher mean score and their total antisocial behavior score (the total for the 27 items) was significantly different from the occasional fighters (40.60 vs. 33.86; F = 4.31, p = .02). When fighting was excluded from this total score

[7] Identical results were obtained for mother assessments when means were adjusted by using age 7 or 8 mother assessments on the CBCL (Achenbach & Edelbrock, 1983).

Table VI. Differences in Means for Family Characteristics at Age 6

		Stable high fighters	Variable high fighters	Occasional high fighters	
	N mothers	16	19	29	
	N fathers	11	17	26	F
Mothers' age	M	28.6	30.7	31.6	2.62
	SD	(3.0)	(3.4)	(5.1)	
Fathers' age	M	33.2	31.7	33.0	0.39
	SD	(5.5)	(3.8)	(5.8)	
Mothers' years in school	M	9.7	10.9	10.8	1.99
	SD	(2.5)	(1.4)	(2.0)	
Fathers' years in school	M	8.8	10.8	10.1	2.52
	SD	(2.9)	(1.8)	(2.2)	
Mothers' SES index	M	32.9	38.7	38.1	0.92
	SD	(11.3)	(11.5)	(12.7)	
Fathers' SES index	M	30.8	40.8	36.4	3.19
	SD	(5.1)	(12.4)	(10.4)	
Family status					X2
	Intact	44%	47%	55%	
	Single	31%	32%	24%	0.7
	Remarried	25%	21%	21%	ns

the stable high fighters still had the highest mean score (27.6) and the occasional high fighters the lowest score (24.0), but these differences were found to be only marginally significant (F = 2.78, p = .07).

To test the assumption that stable high fighting would be associated to family characteristics we first compared the three groups on each of the variables chosen to construct the index of family socioeconomic disadvantage. Table VI shows that the stable high fighters tended to have younger mothers, who were less educated and maintained a lower socio-economic status. In addition they tended to come from non-intact families, their biological fathers tended to have had less education and was in a lower socio-economic status. However, there were no significant differences for each background family characteristics between the three groups.

The family socioeconomic disadvantage index was an aggregate of these tendencies. Table VII shows that, as early as kindergarten, stable high fighters originated from families with a significantly higher index compared to variable and occasional high fighters (p = .0008). When disadvantage status was stratified on two levels, less than one-fifth of the stable high fighters were from families which could be classified as having no to low disadvantage (see Table VIII). The majority of the high fighters

Table VII. Mean Differences in Family Adversity at Age 6

	Stable high fighters (N = 16)	Variable high fighters (N = 19)	Occasional high fighters (N = 29)	F
M	0.62	0.36	0.40	8.06
SD	(.22)	(0.18)	(.21)	p = .0008 (S > V, O)[a]

[a]*Note*: S = stable; V = variable; O = occasional.

were from families which could be classified as having moderate to high disadvantage (81.3%) when the boys were in kindergarten, whereas the majority of variable and occasional high fighters were from families which could be classified as having no to low disadvantage (73.7% and 72.4%, respectively). There were no significant differences in family disadvantage between the variable and occasional high fighters. Note that this last analysis is only indicative since expected frequencies in some cells were relatively small.

DISCUSSION

The first aim of this study was to document the stability of frequent fighting of disruptive boys during the first half of elementary school (ages six to nine). The second aim was to verify the extent to which stable and nonstable frequent fighting boys from age six to nine would show different types of maladjustments at age 10. Finally, family characteristics hypothesized to differentiate stable from other less stable high fighting boys

Table VIII. Distribution of Boys from Each Group According to Two Levels of Family Adversity

		Stable high fighters (N = 16)	Variable high fighters (N = 19)	Occasional high fighters (N = 29)
No to low adversity (0–.49)	%	18.8%	73.7%	72.4%
	N	(3)	(14)	(21)
Moderate to High adversity (.50–1.00)	%	81.3%	26.3%	27.6%
	N	(13)	(5)	(8)
			χ^2 = 14.60 p = .0007	

were explored. Particular care was taken to discriminate between a general rating of "disruptive" behavior and "physically aggressive" behavior. Only items which clearly referred to fighting were retained in order to study the continuity of aggressive behavior and to create groups of aggressive boys.

The results showed that, in this select sample, most boys (93%) who had been assessed as disruptive at age 6 were rated as high fighters by their teachers at least once at ages six, eight, or nine. However, only 23% of these boys, assessed as disruptive in kindergarten, were found to be high fighters on each of the three assessment years. This estimate of stable aggressive behavior was somewhat lower than estimates based on only two successive assessment years (29%, 30%). On the other hand, if the criteria for being categorized "stable aggressive" had been any boy who was assessed a "high fighter" any two out of the three assessment years, then the stability estimate would have reached 51%. It was observed that high fighting in any given year did not significantly increase the probability of high fighting in another year. However, as Loeber et al. (1989) have shown,[8] this probability was significantly increased if high fighting was present in two successive years. This shows how successive assessments can enhance the predictive utility of a possible screening device for persistent fighting in boys.

Only additional longitudinal data can confirm which criteria of stability is the best predictor of a given outcome. However, it has been shown that, by taking the most conservative estimate of stability (being rated by teachers as a high fighter on each of the three assessments), these boys at age 10 were perceived by people around them (teachers, peers and mothers) and themselves as more disruptive than the less stable high fighters, even after having controlled for their level of disruptive behavior four years earlier. Interestingly, peer ratings of disruptive behavior showed the clearest differences between the three groups. At age 10 the stable high fighters also tended to report having generally been involved in more antisocial behaviors such as stealing, vandalism, alcohol and drug use; moreover, they reported fighting more often than the occasional high fighting groups. These results show an impressive self-other agreement both for disruptive behavior and fighting behavior among a sample which was selected to be relatively homogeneous when in kindergarten. Cairns et al. (1989) have shown with a normative sample followed from age 10 to 13 that self-other agreement on aggressive assessments appears only in early adolescence. Our results may indicate that self-other agreement on ratings of aggressive and disruptive behavior may be more precocious for boys who

[8]Note that the conditional probabilities in that study were calculated in a slightly different manner. The sample and the ages of data collection were also slightly different.

have adopted a physically aggressive life style from an early age. It should also be noted that all raters agreed that the stable high fighters were not more or less prosocial and anxious than the other two groups of boys. This is also an indication that ratings by teachers, mothers, peers and self were not driven by a halo effect.

It should be remembered that the subjects in this study were all rated disruptive by their kindergarten teachers, using a scale which included only a few physical aggression items and many disruptive items (oppositional behavior, rejection, hyperactivity, inattention, etc.). Results indicate that these scales, often labeled "aggression scales," probably aggregate two kinds of disruptive boys, the high frequency fighters at high risk for stable disruptive physically aggressive and antisocial behaviors, and the disruptive, low frequency fighters who are at a lower risk of stable disruptive behavior and at a lower risk of early antisocial behavior.

Data from family characteristics showed that the stable high fighters lived in more socioeconomically disadvantaged environments when in kindergarten. These results corroborate other studies which have shown that high family adversity in early childhood is an important predictor of future stable antisocial behavior (Kolvin, Miller, Fleeting, & Kolvin, 1988). Results from our study show, however, that family disadvantage can help discriminate stable high fighters and occasional high fighters within a sample of disruptive boys from lower socioeconomic environments. Since the samples were small, and while the variance of socioeconomic indicators was restricted, this would indicate that family disadvantage is strongly associated to physical aggression in young boys.

Correlational studies of the stability of aggressive behavior in normative samples have generally shown that aggressive behavior is a relatively stable phenomenon (Olweus, 1979; Rushton & Erdle, 1987). For applied purposes it is necessary however to document the stability of aggressive behavior in high risk samples so that the stability for individual cases is ascertained. This study has made such an attempt with a limited number of high risk subjects. Although yearly follow-ups of large samples is a costly enterprise, it is clear that only this type of stability study can enable clinicians to understand the practical implications of stable, variable and occasional aggressive behavior. It is possible that boys with variable or occasional high fighting behavior are "situationally dependent" and may be helped by changes to their school environmen. On the other hand, since stable high fighters show cross-situational and temporal consistency of aggressive behavior, in addition to having been brought up in a disadvantaged environment, it is likely that only very powerful interventions can change the course of their behavior.

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