

A Profile of Interpersonal Conflict Resolution of Children with Learning Disabilities

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This study involved a comparison between 30 children with Learning Disabilities (LD) and 30 typically developing peers, regarding their ability to resolve interpersonal conflict problems. It was hypothesized that the groups would show significant differences along the following parameters: (a) understanding of the components of the problems; (b) finding of alternative solutions; (c) determination of the consequences of the solutions; (d) the type of solution strategies used; (e) differentiation of the strategies in line with the different requirements of each situation; (f) level of development of interpersonal negotiation. The results of the study indicate that children with LD experience more difficulty than children of typical development in appreciating the components which make up the context of interpersonal conflict, in devising alternative solutions to resolve the conflict and in appreciating the consequences of the solutions they propose. With regard to the type of resolution strategy employed, the study shows that children with LD present both similarities to and differences from their typical peers, depending on the specific situational features, since situations appear to vary in the type of social behavior they promote in children with LD. Finally, in respect to the use of different strategies to meet the special requirements of each situation, and in respect to the development level of interpersonal negotiation, no statistically significant differences were found between the groups. An intriguing finding of the study, warranting further examination, is the fact that children with LD seem to come up with strategies that are comparable to the strategies of their typical peers and, moreover, take into consideration the situational circumstances, despite their problems with the three first phases of the interpersonal problem solving procedure.

Key words: Learning Disabilities, Interpersonal Conflict, Resolution of Social and Emotional Problems

A significant number of studies have shown that most children with Learning Disabilities (LD), compared with typically developing peers (no LD, average achievement at school), manifest more difficulties in understanding social situations, a lower quality and quantity of spontaneous strategies for tackling social problems, more unclear and one-dimensional objectives in the area of social interaction, and less effective means of attaining the social objectives they pursue (Kavale & Forness, 1996; Lewandowski & Barlow, 2000; Swanson & Malone, 1992). Numerous difficulties in overall adjustment and social functioning, such as rejection or neglect by

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classmates and various emotional problems, have been related to the poor social skills exhibited by children with LD (Greenham, 1999; Vaughn, Elbaum, & Boardman, 2001).

Attempts to explain the social skill deficits of children with LD have focused on the social-cognitive processes utilized by these children—that is, on processes underlying the way in which individuals perceive and interpret cues in a social situation and decide on how to act (e.g. Bryan, 1991; McIntosh, Vaughn, & Bennerson, 1995). It has been suggested, for example, that children with LD are likely to exhibit problems in encoding social information and to show less preference for competent self-generated solutions than their typical peers, albeit there is evidence that the amount of social knowledge possessed by the two groups is the same—at least in relation to many everyday social situations (Pearl, 1992; Tur-Kaspa & Bryan, 1994). Another social-cognitive factor that may negatively affect the social behavior of children with LD is their difficulty to engage in role-taking or to understand other's perspectives during social interactions (Greenham, 1999). It should be noted, however, that other confounding variables, such as inattention or lack of motivation, could have an impact on their social abilities (Wong, 1996).

Social situations presuming the activation of a large portion of individual's social skills, such as interpersonal conflict, place more stress on the social competence deficits of children with LD. The management of interpersonal conflict is a critical parameter of the individual's social adjustment, since a failure in conflict resolution adversely affects interpersonal relationships and may lead to the complete social isolation of the individual, or his/her transformation into the permanent victim of other's demands and aggression (Mishna, 2003; Wilmot & Hocker, 2001).

A critical evaluation of available research shows that there are many differing views regarding the ways in which children with LD actually deal with their interpersonal problems. One point of divergence, for example, is the degree to which the strategies that children with LD use in order to tackle conflict differ from the ones employed by typically developing children. Carlson (1987), for example, claims that children with LD, compared with their typical peers, tend to use more one-dimensional strategies of direct domination or submission and are far less likely to use strategies of interpersonal negotiation. Oliva & La Greca (1988), on the other hand, maintain that a difference between the two groups lies not in the kind of strategies they employ (friendly versus hostile strategies) but in the social objectives they themselves set, with the LD group setting less sophisticated and specific goals. Another unresolved question regarding the social-cognitive processes activated by children with LD in interpersonal conflict situations, is the extent to which these children appreciate the special requirements of each situation as factors differentiating the strategies to be adopted (Bryan, 1998). On the basis of the meager evidence available some researchers (e.g. Gerber, 1983; Parril-Burnstein, M., 1981) incline to the view that children with LD do not take into account differences in social situations when they are framing their strategies in order to come up with a variety of different solutions; instead they employ a limited range of strategies regardless of the particular requirements of each individual situation. Other scientists (e.g. Schumaker & Deshler, 1995), conclude that children with LD do take into consideration the specific context of social situations, since their tendency to choose anti-

social strategies (requiring less analytical processing and application) is mainly expressed in situations where they feel intense physical or mental pressure from their peers (or from adults) and there is an urgent need for immediate reaction. The question of the type of strategy used in different social situations is directly linked with the question of the level of development of children with LD in terms of their handling of various dimensions of interpersonal conflict (such as interpersonal understanding, for example). Research varies in its findings on this point too, with some studies concluding that children with LD are at a lower level of development than their peers (e.g. Kravetz, Faust, Lipshitz, & Shalhav, 1998), while others tend to support the view that different choices reflect a different approach to the resolution of interpersonal conflict rather than a lower than expected level of development (e.g. Carlson, 1987).

It is evident that the organization of appropriate educational programs, which will strengthen the ability of children with LD to resolve interpersonal conflict, presupposes the filling of the gaps in our current knowledge base in respect to the social-cognitive processes that underlie conflict resolution. It is true that the already mentioned gaps are mainly referring to strategies, but the formation and selection of strategies is directly dependent on a whole sequence of prerequisite sub-processes (such as the encoding and interpretation of social cues), which should be carefully examined in order for a clear picture of strategies use to be drawn. Therefore, the aim of this study is to investigate the way in which children with LD resolve interpersonal conflict by testing the following points of potential differentiation between children with LD and their typically developing peers: (a) understanding of the components of interpersonal conflict; (b) finding of alternative solutions to interpersonal conflict; (c) determination of the consequences of solutions to interpersonal conflict; (d) the type of strategies used in resolution of interpersonal conflict; (e) the differentiation of strategies in accordance with the requirements of each situation of interpersonal conflict; (f) the development level of interpersonal negotiation. The theoretical foundations that underpin these hypotheses are as follows:

- (a) The interpersonal problem resolution model developed by Spivack, Platt and Shure (1976), according to which the problem-solving process contains the following components: (i) *goal identification*, involving the recognition of the aims, emotions and needs of the parties to an interpersonal conflict; (ii) *alternative thinking*, i.e. the production of a range of alternative solutions to the problematic situation the individual is facing; (iii) *consequential thinking*, whereby the individual foresees the consequences of the different solutions before finally selecting one of them; (iv) *solution implementation*, whereby the preferred solution is put into effect. These components are considered as sequential steps of the whole process of social problem-solving and the first three of them have been examined in this study.
- (b) The correspondence between the strategies in the social and emotional problem-solving model of Carlson (1987) and the levels of the development model of interpersonal negotiation put forward by Selman and Demorest (1984).

Employing the typology of 'friendship-assertiveness' proposed by Renshaw and Asher (1983), Carlson developed a strategy model which envisages the following cat-

egories: (i) *positive-outgoing-assertive*, characterized by a desire for social relations, an extrovert pattern of behavior, but also a high degree of assertiveness in one’s dealings with others; (ii) *accommodation*, characterized by an orientation toward interaction but with less pushiness and more inclination to conform to environmental conditions; (iii) *rule-oriented*, i.e. judging relations on the basis of informal social laws or the instructions of some form of authority; (iv) *avoidance*, characterized by systematic attempts to distance the individual from possible involvement in conflict; (v) *hostile*, characterized by desire to retaliate and to suspend social relations in the event of any real or imaginary harm to the self; (vi) *compromise*, characterized by attempts to balance the wishes of all those involved in a social relationship; (vii) *ego-centric-demanding*, characterized by attempts to achieve personal objectives riding roughshod over the feelings of others.

The model of development levels for interpersonal negotiation put forward by Selman and Demorest (1984) envisages the following levels: 1) The ‘*impulsive-physical*’ level, or *level 0*, which is characterized by an impulsive use of strategies involving direct domination of, or submission to, others. 2) The ‘*unilateral-coercive*’ level, or *level 1*, characterized by the conscious use of one-sided strategies for either controlling others or submitting to their demands. 3) The ‘*reciprocal-influential*’ level, or *level 2*, characterized by the use of strategies intended to influence others or the self, to allow a change in opinion or a new perspective on things. 4) The ‘*collaborative-mutual*’ level, or *level 3*, characterized by the systematic application of strategies of cooperation intended to achieve consensus in the definition of objectives.

Table 1. <i>Correspondence Between Levels of Interpersonal Negotiation and Strategies for Resolution of Social and Emotional Problems.</i>	
Level of interpersonal Negotiation	Strategy for resolution of social and emotional problem
Impulsive - physical or 0	Egocentric-demanding Hostile
Unilateral - coercive or 1	Avoidance Orientation to rules
Reciprocal - influential or 2	Positive-outgoing-assertive Accommodation Compromise
Collaborative – mutual or 3	Positive-outgoing-collaborative

According to Carlson (1987) there is a correspondence between the strategies and levels set out in the two models mentioned above. After careful consideration of the correspondence proposed by Carlson (1987) as well as the theoretical foundations of the typology of Renshaw and Asher (1983) and the model developed by Selman and Demorest (1984), the authors of this study have arrived at a modified correspondence proposal, one which involves: (a) transposing the ‘*accommodation*’ category of strategies from the ‘*unilateral-coercive*’ level to the ‘*reciprocal-influential*’ level, and b) making the ‘*collaborative-mutual*’ level of interpersonal negotiation correspond to a new (eighth) strategy, to be known as the ‘*positive-outgoing-collaborative*’ strategy and which is characterized by the kind of outgoing social behavior which strives to achieve cooperation.

We believe that these modifications convey more faithfully the spirit underlying the intentions of the researchers who devised the models, and provide better correspondence between the two typologies, although we recognize that in the age group in question we cannot expect an appearance of level 3 and the strategy, which we have added. The correspondence finally adopted for this study is presented in Table 1. See page 18.

METHODOLOGY

Participants

The sample consisted of 30 children with LD and 30 typically developing children attending the 5th and 6th grades at 12 different primary schools in the Municipality of Thessaloniki. Seven of the schools were located in the western half of the city and the remaining five in the eastern half, thus providing a representative socio-economic sample. Of the 30 children with LD, 18 were boys (60%) and 12 were girls (40%); their ages ranged from 10 to 12.1 years, with an average of 11 years. Of the thirty children without learning difficulties, 14 were boys (46.6%) and 16 were girls (53.3%), with ages ranging from 10 to 11.9 years and an average of 10.8. Sixteen (53.3%) of the children in each group were in the 5th grade and the other fourteen (46.6%) attended the 6th grade.

Of the children with LD, 13 had been certified as having special needs by the Centre for Diagnosis, Evaluation and Support (K.D.A.Y.) or by the medical-pedagogical department of the Ministry of Welfare. The other 17 were from a group of 43 children identified by their teachers as performing poorly at school and who were examined by the researchers using the Athina Test for the Diagnosis of Learning Disabilities (Paraskevopoulos, Kalantzi-Azizi, & Giannitsas, 1999), as well as an informal tool for testing reading, writing and arithmetical skills. Children without learning difficulties were selected as follows: for each student with LD they had in their classes the teachers were asked to indicate three children of average to above average performance, excluding the top student in the class. One of these children was then randomly selected to participate in the control group.

The research procedure

Data was collected through personal interviews with the children, each lasting 45 minutes. The interviews focused on three interpersonal conflict problems, which were presented to the participant in parallel pictorial and verbal forms (the text was read to the subjects by the researchers). After the reading and pictorial presentation of the situation the children were asked: to identify the behavior goals and emotions of the parties involved, to suggest solutions, to define the consequences of the solutions and to state the way in which they themselves would act in a similar situation. This method of data collection constitutes common practice among researchers in the area of social and emotional problem solving (e.g. Bryan, 1991; Vaughn & Sinagub, 1998).

The interpersonal conflict problems used in the research involved the following situations: the first problem featured three children; two of them divided the room with a blanket and played together, thus isolating the third child who attempted to invade their space. This situation evolved in the absence of any other individual. The second problem featured four children sitting in a restaurant and trying to deal with the behavior of one member of the group, who had climbed on his chair shouting

and annoying his friends and the other customers. In this case the protagonists were exposed to social censure (customers, restaurant owner). The third problem involved a quarrel between brothers, fighting over a box of chocolates in the living room of their own house. Their mother—a familiar authority figure—was situated at the back of the living room. These problems seemed appropriate for the participants, since they represent often-encountered instances of everyday life and most children are likely to have similar experiences. Moreover, the demands made by the problems in terms of the mental processing required for their resolution could not be considered as extreme.

Children were asked to answer the following questions regarding the first problem—which were representative of the questions used in the other conflict situations:

- *“Why do you think Nikos and Dimitris have divided the room with a blanket?”—*
“What do you think they want to achieve?”
- *“How do you think the two children feel?”*
- *“Why, in your opinion, is Fotis (the third child) looking under the blanket?”—*
“What do you think is his purpose?”
- *“How do you think Fotis feels?”*
- *“What can Fotis do to deal with the situation?”*
- *“What obstacles might he encounter while trying to implement this solution (the one proposed by the interviewed child)?”*
- *“Is there another solution to this situation?”*
- *“What do you think of each of the following possible solutions?”*
(Three solutions were read to the child)
- *“Which one of the solutions mentioned by you and read by me, do you prefer and why?”*
- *“Have you ever found yourself in a position similar to that of Fotis, that is in a position where your siblings or your friends excluded you from their play?”*
- *“How did you feel?”*
- *“What did you do?”*

To deal with cases of children who might not be able to come up with an answer, three hints (possible answers) were offered for every question after a waiting time of fifteen seconds. For the formation of the hints, answers given by eight children (four with and four without LD) during a pilot study were taken into consideration.

The interviews were tape-recorded and transcribed. The two researchers and two special education teachers—who were involved in data collection—assessed and categorized the participants’ responses. The categorization was performed in accordance with the correspondence between levels of interpersonal negotiation and strategies for resolving social and emotional problems set out in Table 1. The level of agreement in the assessments of the four evaluators (reliability of assessment) was as follows: for the first situation—88%; for the second—85%, and for the third—90%. Quantitative analysis of the data was carried out using the SPSS statistical package.

RESULTS

The results of the study demonstrated that in the ‘objective recognition’ of the three social and emotional problems, the difference between the two groups was statistically significant, as shown in Table 2.

Problem	Children with LD Failure % (n=30)	Children without LD Failure % (n=30)	χ^2	d.f.	p
1	73.3	30.0	11.27 ^a	1	.001
2	63.3	26.6	8.14	1	.004
3	63.3	23.3	9.77	1	.002

a. The "expected frequencies" assumptions regarding the above mentioned Chi-square tests are 14,50 – 13,50 – 13,00 respectively.

The first hypothesis of our study which envisages differences between children with and children without LD, in the recognition of the objectives and feelings of the parties to interpersonal conflict was confirmed. In comparison with their typically developing peers, children with LD seemed to experience increased difficulty in understanding the structural elements of interpersonal conflict.

In respect to the second step of interpersonal problem solving—‘alternative thinking’—the difference between the two groups was also statistically significant, as we see in Table 3. Therefore, the second hypothesis of our study, which envisages difference between children with and without LD in terms of their ability to find solutions to interpersonal conflict, was confirmed as well. In comparison to their typically developing peers, children with LD were more likely to experience difficulty in generating solutions to interpersonal conflicts.

Problem	Children with LD Failure % (n=30)	Children without LD Failure % (n=30)	χ^2	d.f.	p
1	60.0	26.6	6.78 ^a	1	.009
2	53.3	16.6	8.86	1	.003
3	63.3	16.6	13.61	1	.000

a. The "expected frequencies" assumptions regarding the above mentioned Chi-square tests are 13,00 – 10,50 – 12,00 respectively.

In respect to ‘consequential thinking’, the third component of interpersonal problem-solving, there was also a statistically significant difference between the two groups, as shown in Table 4.

Problem	Children with LD Failure % (n=30)	Children without LD Failure % (n=30)	χ^2	d.f.	p
1	60.0	26.6	6.78 ^a	1	.009
2	53.3	16.6	8.86	1	.003
3	63.3	16.6	13.61	1	.000

a. The "expected frequencies" assumptions regarding the above mentioned Chi-square tests are 13,00 – 10,50 – 12,00 respectively.

We could therefore accept the third hypothesis we set out to test, namely that children with LD differ from their peers in terms of their ability to see the consequences

of their solutions to interpersonal conflict. Compared with the typically developing children, children with LD were more likely to experience difficulty in identifying the consequences of the solutions they adopt.

Table 5. *Statistical significance of differences in the types of strategies used by children with and without LD.*

Children with and without LD- Fisher p			
Category of strategies	1 st problem	2 nd problem	3 rd problem
1. Egocentric demanding	1 st – 2 nd group	1 st – 2 nd group	1 st – 2 nd group
2. Hostile	p = .495	p = .001 ^a	p = .110
3. Avoidance	2 nd – 3 rd group	2 nd – 3 rd group	2 nd – 3 rd group
4. Orientation to rules	p = .284	p = .197	p = .142
5. Positive-outgoing-assertive	1 st – 3 rd group	1 st – 3 rd group	1 st – 3 rd group
6. Accommodation	p = .178	p = .007	p = .771
7. Compromise			
8. Positive-outgoing-collaborative	–	–	–
<i>a. The “expected frequencies” assumptions regarding the statistically significant Fisher p values (2nd problem, 1st – 2nd and 1st – 3rd groups of strategies) are 5,28 and 5,11 respectively.</i>			

As for the type of strategy chosen by the two groups to resolve social and emotional problems, the study yields the following findings: In the case of the first problem, the two first choices of both groups were the strategies of avoidance and accommodation; in fact, the percentages were remarkably close (children with LD: avoidance 56.6%, accommodation 26.6%—typical children: avoidance 53.3%, accommodation 20%). In overall terms, children with LD used four strategies, and their typically developing counterparts five. Regarding the second problem we observed a significant differentiation between the two groups, in the sense that children with LD demonstrated the hostile strategy as their first choice (36.6%) and the positive-outgoing-assertive strategy as their second (26.6%), while children without LD favored the positive-outgoing-assertive strategy (46.6%) over their second choice, the avoidance strategy, (30%). The hostile strategy was used by only 3.3% of children without LD. In dealing with this problem both groups used six of the eight strategies (the first and the eighth in Table 5 were not used). As far as the third interpersonal conflict scenario was concerned, the largest part of both groups employed the compromise strategy. In fact it was the solution opted for by 36.6% of both groups—those with and those without LD. However, a differentiation was seen in the second most frequently chosen strategy: children with LD opted with the same frequency (13.3%) for the hostile and the rule-oriented strategies, while 29% of the children without LD chose the ego-centric-demanding strategy. Both groups made use of the first seven of the eight strategies presented in Table 5. In order to verify the statistical significance of the differences between the two groups the strategies were classified in order to deal with instances of zero-frequency. The classification was based on the affinity between the strategies and their correspondence to the levels of interpersonal negotiation; it

grouped the strategies as follows: 1st group—egocentric-demanding and hostile; 2nd group—avoidance and rule-orientation; 3rd group—positive-outgoing-assertive, accommodation and compromise. The Fisher p values arising from comparison of the three strategy groups are presented in Table 5. See page 22

In the light of these values, we believe that the fourth hypothesis, namely that children with LD differ from their peers in terms of the type of strategy they use to resolve interpersonal conflict, should be rejected. Compared with their peers with average school achievement, children with LD demonstrated significant differentiation in strategies in only one of the three interpersonal conflict situations (2nd problem), and that in respect of the use of just one kind of strategy (hostile).

As for the capacity of children with LD to differentiate their strategies according to the special features of the problem they are facing—always in comparison to children with typical development—the results of the study are as follows: In the group of children with LD there was a statistically significant difference between the strategies used in the 1st and 2nd problems ($\chi^2 = 21,46$, d.f. = 2, $p = .000$), and also in the 1st and 3rd problems ($\chi^2 = 11,70$, d.f. = 2, $p = .003$). The difference in the strategies used in the 2nd and 3rd problems was not, however, statistically significant ($\chi^2 = 2,48$, d.f. = 2, $p = .288$). In the group of children without learning disabilities the difference between strategies used in the 1st and 2nd problems was statistically insignificant ($\chi^2 = 4,35$, d.f. = 2, $p = .113$), while the differences between the strategies used for the 1st and 3rd and 2nd and 3rd problems were significant ($\chi^2 = 22,64$, d.f. = 2, $p = .000$ and $\chi^2 = 12,72$, d.f. = 2, $p = .002$ respectively). In other words, in two of the three possible comparisons of strategy differentiation by problem, the differences were statistically significant for both groups in the sample. We must therefore reject the fifth hypothesis, that is that children with learning disabilities differ from their peers without LD in terms of their ability to choose different strategies in response to the requirements of the conflict situation they face.

Finally, regarding the level of interpersonal negotiation development of the children in both groups, as indicated by the strategies they employ, the findings of the study are as follows: both groups fall into a similar pattern of classification when responding to the 1st and 3rd problems. More specifically, in response to the 1st problem most children in both groups were placed in the unilateral-coercive level, while the second largest number in both groups were placed in the reciprocal-influential level. In their response to the 3rd problem the majority of children in both groups are placed on the reciprocal-influential level. The remainder of the children with learning difficulties were distributed equally to the impulsive-physical and unilateral-coercive levels, while in the group of children without learning difficulties the second largest number was placed in the impulsive-physical level, and the third largest number in the unilateral-coercive level. In their response to the second problem most children in both groups were placed in the reciprocal-influential level; however, the second largest number among children with LD was placed in the impulsive-physical level, while the corresponding group among the children without LD was placed in the unilateral-coercive level. The exact frequencies and statistical significance of the differences between the two groups in response to each problem are presented in Tables 6, 7 and 8 below.

Table 6: *Classification of children with and without LD in respect to interpersonal negotiation development level, in their response to the 1st problem*

1 st problem					
Development level	Children with LD	Children without LD	χ^2	d.f.	P
Impulsive—physical or 0	6.6 %	0 %	3.43	2	.180
Unilateral—coercive or 1	66.6 %	56.6 %			
Reciprocal—influential or 2	26.6 %	43.3 %			
Collaborative—mutual or 3	–	–			

Table 7: *Classification of children with and without LD in respect to interpersonal negotiation development level, in their response to the 2nd problem.*

2 nd problem					
Development level	Children with LD	Children without LD	χ^2	d.f.	P
Impulsive—physical or 0	36.6 %	3.3 %	12.36 ^a	2	.002
Unilateral—coercive or 1	10.0 %	33.3 %			
Reciprocal—influential or 2	53.3 %	63.3 %			
Collaborative – mutual or 3	–	–			

a. The “expected frequency” assumption regarding the above mentioned Chi-square test is 6,00.

Table 8: *Classification of children with and without LD in respect to interpersonal negotiation development level, in their response to the 3rd problem.*

3 rd problem					
Development level	Children with LD	Children without LD	χ^2	d.f.	P
Impulsive —physical or 0	23.3 %	33.3 %	3.42	2	.180
Unilateral—coercive or 1	23.3 %	6.6 %			
Reciprocal—influential or 2	53.3 %	60.0 %			
Collaborative—mutual or 3	–	–			

In view of the above results we feel we must also reject our sixth hypothesis - namely that children with LD are at a different development level from typical children in respect to interpersonal negotiation.

CONCLUSIONS —DISCUSSION

The purpose of this study was to delineate a profile of children with LD regarding the performance of social-cognitive processes underlying conflict resolution. We set out to test hypotheses concerning the possible differences between these children and their typical peers in the following areas: understanding of interpersonal conflict problems; generation of solutions and assessment of their consequences; use of strategies and their adaptation to the requirements of individual situations; interpersonal negotiation development level corresponding to the choice of strategies.

The results of our research indicate that children with LD demonstrate more weaknesses than typical children (a) in interpreting the various cues of the environment of interpersonal conflict, (b) in producing alternative solutions to resolve conflict and (c) in assessing the consequences of different possible solutions. At the same time, however, it appears that children with LD (a) present both similarities to and differences from their typical peers in respect to the type of strategies they choose in order to resolve interpersonal conflict, depending on the specific situational features (b) do not differ from their peers in the ability to use the content of their perception of the social situations as a factor to differentiate the strategies they apply, and (c) do not differ from typical children in terms of their interpersonal negotiation strategy development level.

The increased difficulties experienced by children with LD in the three first phases of the process of solving social and emotional problems in general and interpersonal conflict in particular, have been a consistent finding of almost all relevant research (e.g. Kravetz, Faust, Lipshitz, & Shalhav, 1998; Toro, Weissberg, Guare, & Liebenstein, 1990). It is believed that these difficulties are associated with LD children's reduced ability to process verbal and non-verbal information and to empathize with others, given that the understanding of social problems and the production of effective solutions presuppose: (a) a correct appreciation of views, demands, hints, expectations, facial expressions, bodily movements and in general all forms of expression of feeling and intention and (b) the ability to detach oneself from one's own view of things and see them from the point of view of the parties involved (Greenham, 1999). Another possible reason for the limitations experienced by the children with LD in the first three phases of interpersonal conflict resolution could be an insufficient ability to focus simultaneously on several important cues of the social situation and to integrate the obtained information into a unified interpretation, due to attention deficits and closure problems (Wong, 1996).

Our finding that children with LD present both similarities to and differences from their typical peers in terms of the strategies they employ to resolve interpersonal conflict is consistent with the view taken by scientists who claim that the social-cognitive problems exhibited by these children are situation specific (e.g. Pearl, Bryan, Fallon, & Herzog, 1991). In our study, the situation in which children with LD proposed—to a great extent—the use of a different strategy (hostile) differs from the other two situations in that the protagonists, with whom the children with LD identified, had to control the behavior of one member of the group, who did not permit them to enjoy their food and one another's company, while also exposing them to the censure of the social setting, in the presence of an unfamiliar authority who was not in charge of them (2nd story—outing to restaurant). The children may have felt that it was their responsibility to enforce norms, in order to avoid censure, and the challenge of controlling a peer in a situation open to public criticism and in the absence of direct adult supervision, probably motivated them to act immediately and in the most direct way they could think of. The hostile strategy, as the most representative dominance strategy guaranteeing immediate results, may have seemed as a natural choice for children dealing with the aberrant behavior of their friend under public pressure. Another factor that may have contributed to the choice of the hostile strategy in this specific scenario, is the fact that the children who had to make the choice

of a conflict resolution strategy enjoyed numerical superiority, in contrast to the other two stories, in one of which they were numerically fewer (1st story—child excluded from game) and in the other the forces were balanced (3rd story—argument over the chocolates). Therefore, it could be hypothesized that in situations where there is a way out of the problem, or where the choice of anti-social behavior may have adverse consequences for the child making that choice, children with LD do not differ from typically developing children in respect to the strategies they apply. On the other hand, it is probable that in response to situations characterized by a perceived limited spectrum of alternatives and an urgent need for solutions, and not entailing obvious dangers for the acting person, children with LD tend to select strategies more unilateral in approach—in that only one of the disputing parties could win. The choice of inappropriate strategies could also be the result of negative judgements concerning the self-efficacy of children with LD in reference to the implementation of more acceptable strategies in specific social situations. It is clear that a proper definition of the whole range of situations triggering the choice of anti-social strategies on the part of children with LD requires further research, since this is an initial foray at investigating situational effects.

On the issue of the ability of children with LD to use a variety of strategies in an attempt to respond to the perceived different requirements of each situation, the present study coincides with the part of the current literature supporting the view that situations appear to vary in the type of social behavior they promote in children with LD (e.g. Pearl, 1992; Tur-Kaspa & Bryan, 1994). More specifically, our findings indicate that children with LD change their strategies from situation to situation and they do not tackle every social problem with the same predetermined set of behavior patterns. Of course they do not evaluate every situation in the same way as typical children and they often make less effective choices but, on the other hand, it appears that they are in the position to use any strategy, when they feel it is in their own interest. To illustrate this point we might cite the fact that in response to the 1st problem children with LD used 4 strategies and typical children 5; in response to the 2nd problem both groups used 6 strategies, and in response to the 3rd problem both groups used 7 strategies. Neither group made use of the strategy added in this study to the model of Carlson (1987) (positive-outgoing-collaborative). Despite their difficulty in appreciating situations and producing and assessing solutions, children with LD appear to understand the existence of different requirements in each situation, and the need to use a variety of strategies. Of course, their attempt to match strategy to situation is not always successful.

Finally, with respect to the interpersonal negotiation development level, our findings indicate that children with LD are placed more frequently than typical children on the impulsive-physical and unilateral-coercive levels, yet they are also represented on the reciprocal-influential level, so that the overall differences between the two groups are not significant. This finding is consistent with similar findings by researchers in the field (e.g. Carlson, 1987). The differences identified in development levels between the two groups are probably associated with the tendency of children with LD to choose strategies belonging to the lower level of interpersonal negotiation when dealing with problems under pressure, or may reflect the social orientation of just a small section of the total group of children with learning dis-

abilities, acquiring excessive prominence by the relatively small samples which tend to be used in studies of this sort. Since all children with LD do not select the lower-level strategies in all cases of problems, it is natural that no consistent difference in development levels between these children and children without learning disabilities should appear.

A critical theoretical question arising from the present research refers to the intriguing finding that children with LD come up with strategies that are comparable to the strategies of their typical peers and, moreover, take into consideration the situational circumstances, despite the fact that they seem to face problems with the three first phases of the interpersonal problem resolution model proposed by Spivack, Platt, & Shure (1976). It could be hypothesized that these phases may not be necessary (or are of less importance) in the selection process of competent strategies for the conflict situations used in the present research. It is possible that certain basic “if . . . then” or “you should” rules, referring to the handling of particular situational features, have been internalized by children with LD and are being applied in the specific social problems. It is also possible that the questions used in the interview did not directly elicit children’s exact performance of the processes involved in the first three phases. This question warrants further examination, since the diversity in the features of conflict situations allows the formulation of several hypotheses.

This study has a number of limitations, which need to be taken into account when interpreting the results. The first one arises from the means used to present the social conflict scenarios. It is well known that children with LD do not process verbal and pictorial material in the same way as their typical peers; consequently, the differences observed between the two groups in the resolving of social conflict may actually reflect their different abilities in these two areas, prerequisites for approaching the examples used in the research. But other methodological choices, such as the use of film, would have entailed the same limitation. A second limitation of the study arises from the fact that the formulation of a view on the resolution of hypothetical situations as described or presented in various ways may not always coincide with the actual behavior of the subject when faced with a real problem in everyday life (Bryan, 1998). It is thus likely that the strategies proposed in the study would not have been adopted with the same frequency in actual practice. This, however, is a more general problem of research in the field of behavior. The small number of scenarios used in the interviews, and the relatively small size of the sample constitute an additional limitation.

Despite these limitations we feel that our findings are worthy of consideration in the organization of educational programs for LD children, especially if they are used as one-tailed hypotheses. Programs of this sort may seek: (a) to improve the ‘deciphering’ of the verbal or non-verbal context of interpersonal conflict and the assessment of their consequences, by strengthening the motivation and the capacity for interpersonal understanding or empathy through role-playing and multi-layer processing of personal experiences in a variety of situations, (b) to increase the quality and quantity of the solutions produced for interpersonal conflict, by providing incentives and teaching techniques for improved concentration on and choosing of positive social objectives, and (c) to increase the use of higher-level interpersonal negotiation strategies, through (i) analysis of conflict situations in school life and

identification of the adverse consequences following unsuccessful strategy choices for all persons involved and (ii) direct training of children with LD in the use of specific social strategies relative to certain conflict situations.

Although difficulties in resolving social and emotional problems and especially conflict situations are a particularly demanding area, it is very encouraging to see that there are conclusions of relevant studies tending to indicate that children with LD can make substantial improvements in this area, provided that appropriate teaching is available (e.g. Blackbourn, 1989; McIntosh, Vaughn, & Bennerson, 1995; McIntosh, Vaughn, & Zaragoza, 1991).

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