

## **Cognitive Problem-Solving Abilities and Speech Acts in Children: An Analysis in Vulnerable Family Contexts**

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**Abstract:** *The goal of this study was to analyze the cognitive abilities involved in interpersonal problem-solving and their connection with speech acts in children from contexts of social vulnerability. The sample included 120 schoolchildren between the ages of 8-13 in Mendoza, Argentina. The results showed that the children from more vulnerable family backgrounds, presented significantly less expressive speech acts than children at low vulnerability. It was also observed that displayed significantly poorer identification of emotions and anticipated significantly more negative consequences. In contrast, children who had high level of protective factors identified significantly more emotions, tended to generate more alternatives and anticipated less negative consequences. These results highlight the importance of carrying out early evaluations in contexts of risk, taking a preventive approach, and articulating knowledge from the fields of psychology and linguistics in order to develop new kinds of intervention and support strategies destined to children in school contexts.*

**Keywords:** *Cognitive Problem-Solving Abilities; Speech Acts; Children; Vulnerable Family Contexts.*

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### **1. INTRODUCTION**

Child abuse is a serious social problem that unquestionably affects child development in nearly all of its developmental dimensions (Cichetti & Rogosch, 1997; Morelato, 2011). Once this complex problem has become established, it is hard to deal with and calls for the intervention of specialized teams working in coordination to address the health, social and judiciary dimensions of the issue and to implement protective measures that may safeguard the child at risk. However, given this complexity, it is currently essential to intensify the application of preventive actions in contexts of social vulnerability, even when instances of family violence have not been verified or confirmed. One of the main reasons for this is that the risk for child abuse is absolutely associated with a number of personal and socio-environmental factors that develop very gradually and become evident only later (Hussey et al., 2005).

Vulnerability, from the social point of view, connotes a certain 'frailty' in terms of the chances to access resources and of the possibilities for development. Following Castel (1995), social vulnerability prevents certain groups of people from enjoying equality of opportunities in the face of certain situations. It refers to a collective entity, as each person who is in a situation of vulnerability in turn belongs in a reference group, which is also vulnerable due to the socio-cultural, political, economic, or family history that conditions it. The concept of risk, on the other hand, is more connected to 'danger'; that is, to the conditions or factors that, in the case of children, when present, facilitate the occurrence of developmental difficulties. Along the same line, Giberti (2005) holds that both vulnerability and helplessness are strongly associated with the idea of social risk, and that in order to reduce conceptual ambiguities, it would be adequate to substitute the term social risk for vulnerability. Vulnerability is understood as the efficacy on subjects of damaging or traumatizing events, which may arise both in the external world and in their own psychic processes. It is expressed as the impossibility of defense in the face of traumatizing events due to the lack of sufficient personal psychological resources or to the absence of external support, in addition to the inability to adapt to the new scenario created by the effects of the risky or dangerous situation. Child abuse may take place in any social context and the contextual conditions may generate greater stress levels and foster the appearance of violence. In this paper, when we use the term *family vulnerability*, we refer to a set of

circumstances in which the child, due to his or her family, and/or social and/or economic situation, is more prone to becoming a victim in a situation of risk for child abuse. It should be noted that said circumstances are not necessarily associated with economic aspects alone, but also with relational issues, that is, to failures in the support network, that is why at the time of a diagnostic evaluation, they present indicators of risk for their bio-psycho-social development.

In addition, work experience in contexts of social vulnerability has led to the development of studies and interventions in these contexts focusing on the resources and potential of the children for processes of resilience. It needs to be highlighted that resilience is not a psychological variable in itself, but needs to be understood as a process resulting from the interaction between risk factors and protective factors. The latter are, in turn, a combination of individual factors such as strengths, abilities and competences, and contextual factors, namely sources of external support (Luthar, Cicchetti & Becker, 2000; Lázaro, 2009; Morelato, 2011). Resilience becomes manifest in the behavior and personal resources of the children.

From this perspective, it needs to be underlined that the internal resources associated with resilience processes are connected with cognitive and affective variables, among which may be mentioned cognitive abilities for the solution of interpersonal problems (Nears, 2004; Greco & Ison, 2011), and to the role played by the organization of the self (Cicchetti & Rogosch, 1997). Also along these lines, Grotberg (2001) creates a model to characterize children with greater resilience potential as revealed by their possessing conditions that are expressed through language when they say, for example, 'I am', 'I can' and 'I have'. Besides, being in possession of verbal attributions may be considered as a source of resilience, since these are associated with factors such as self-esteem, self-confidence and confidence in one's environment, autonomy and social competence. It may thus be said that many resilience resources are expressed through language.

Moreno Manso, García Bahamonde and Blázquez Alonso (2008) say that both the short and long-term consequences of child abuse may be observed, among other areas, in language development, with a greater prevalence of deficits in pragmatic components than in others.

Linguistics offers a series of theoretical developments that allow us to understand the unseverable connection between language and thought (Austin, 2006). Indeed, philosophers of language claim that no thought is possible without language, as the linguistic system cannot be conceived without language and vice versa.

Benveniste (1977), in turn, offers a valuable contribution as he claims that language and thought are mutually coordinated and necessary to each other. According to this author, thought is possible because of the language faculty, as language is not only the essential means for the expression of thought, but also a system that conditions it beyond the particular structures of each language. Likewise, authors like Escandell (1996) conceptualize language from a functional point of view; that is, they focus on what speakers can do with it. Also from a functional perspective, Searle (1994) finds it is useful to analyze language at the actional level; that is, the pragmatic level, from the perspective of what he calls speech acts. A speech act is the basic unit of linguistic communication, and is understood as the locus of meaning of human communication.

Considering this association between thought, language and their functional counterparts in action (speech acts), it may be considered useful to incorporate discourse analysis into the study of cognitive abilities for problem solving, particularly of speech acts by children in contexts of social and family vulnerability. The goal of doing this is to detect the linguistic potentialities of children's narratives. Based on the theoretical grounds laid out so far, the goals of the study were 1) to explore aspects of the social and family context of the children participating in the study and 2) to analyze cognitive abilities for interpersonal problem-solving and their connection with speech acts expressed in the discourse of children in contexts of family vulnerability.

## **2. METHOD**

### **2.1. Design**

A descriptive-associative, mixed approach study was carried out. The design was non-experimental, transversal (Hernández Sampieri, Fernández Collado & Baptista Lucio, 2006).

#### *Participants*

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The non-probabilistic, occasional sample included 120 school children (48.3% girls and 51.7% boys) between 10 and 13 years of age ( $X=11.4$ ,  $DS=1.16$ ). The boys and girls in the sample attended a school located in a vulnerable social context, according to the General School Bureau of the province of Mendoza and the Ministry of Human Development, Families and Community of the province (APROS, 2010). Risk factors for family vulnerability were evaluated and where situations of child abuse were confirmed, the cases were referred to specialized health or judicial professional teams.

### *Instruments*

Semi structured interviews: Ad hoc interviews were used with the purpose of detecting risk factors and vulnerability in connection with the socio-family context. They were designed on the basis of clinical experience, bearing in mind the results of previous research (Morelato, 2011; Golovanesky, 2007). The information was completed with data obtained from the children's school records. The interviews were administered to the teachers (who were considered to be key informants) and to the children in two different formats.

The variables studied by means of the interview were analyzed from the perspective of the ecological-contextual model (Bronfenbrenner, 1987; Ehrensaft & Tousignant, 2003). In this model, the context is considered to be formed by four subsystems. The individual's inner capacities, competences and vulnerabilities are part of the so-called onto system. Family, significant bonds and the inner characteristics of the members of these bonds are part of the microsystem. The mesosystem includes, among other aspects, the quality of the relationships with the school, the community, and the extended family, and the access to means of social and educational support. The exosystem is formed by the relationship among institutions and the socio-environmental conditions. Finally, the macrosystem has to do with the social policies, the country's culture and the historical circumstances. These aspects were not explored in the interviews, as they were beyond the scope of this study.

Instrument for the elicitation of the cognitive abilities for interpersonal problem solving, adapted to situations of child abuse (Morelato, 2008): This aim of this technique was to trigger the cognitive abilities involved in the interpersonal problem-solving process. Its validity as a construct is supported by the studies by Spivack, Platt and Shure (1976) on children's abilities for interpersonal problem solving, together with concepts that have been re-elaborated by authors like Ison and Morelato (2008). These authors claim that for children to develop effectively in their social milieu, they need to be able to have recourse to a vast repertoire of cognitive abilities as regulators of behavior. They also base their claims on the studies by García Pérez and Magaz Lago (1998) on the evaluation of cognitive abilities for the solution of interpersonal problems in children. The problems are presented by means of three sequences of images, with three cards per series. They show situations involving children at risk of being scolded or punished, or of being exposed to circumstances that may lead to violence or to the child being left without supervision, that is, deprived of the care of an adult for a long time. The task involved showing the sequence of pictures to the children and then asking a series of questions in connection with the variables of the study (ability to identify a problem, describe it, identify the emotion, generate alternatives, anticipate consequences and make a decision). The illustrations were selected on the basis of the greater frequency of types of risk circumstances in a clinical sample of 100 subjects. The pictures were subjected to the criteria of 13 expert judges (doctors, social workers and psychologists) who specialized in the clinical care of cases of child abuse. They were evaluated in three stages. In the first stage, five judges evaluated the pictures and the necessary changes were introduced. Then they were evaluated by four judges and finally, by four more. At the same time, pilot tests were run both in our clinical practice and in educational institutions. Eighty percent inter-judge agreement was obtained regarding the pertinence of the pictures as triggers of problem situations connected with the risk for family vulnerability.

### *Procedure*

The school where the study took place was located in a socially vulnerable area in the province of Mendoza, in Argentina. The goals of the study were first explained to the school heads and teachers, with a view to obtaining their agreement to participate in this experience. Next, the goals of the study were explained to the parents of the school children, and they were informed about the confidentiality of the data and asked for their written informed consent for the participation of the children. Once the parents gave their authorization, the evaluation of the children started. This evaluation was carried out

in the context of an individual interview with a trained psychologist who explained to them that "we wanted to find out about children their age, how they were doing at school and at home", because "we wanted to be able to help when they had difficulties". Then they were told that their participation was confidential. It was only when the children gave their consent that the interview was administered and the evaluation instrument applied. It was explained to the participants that there were neither correct nor incorrect answers, and that the main thing was to get to know what their honest opinion was. On the other hand, teachers were given an individual, semi-structured interview that explored the same variables as the children's interview, but from the perspective of the knowledge they could have in their capacity as teachers.

For the evaluation of risk for family vulnerability and of protective factors, the information was extracted mainly from the children's semi-structured individual interview. This was contrasted with the information given by the teachers, in order to either confirm or discard data. The questions focused on four classes of typical abuse (child physical, psychological, and sexual abuse and neglect), departing from an exploration of the everyday family functioning (setting of limits, family organization, support, medical checkups, time under adult supervision, overcrowding, kinds of grounding and punishment). In order to assess the information, the Maltreatment Classification System by Barnett, Manly and Cicchetti (1993) was used, with the Cicchetti, Rogosch, Manly and Lynch (2005). Although MCS uses a 1 to 5 point rating scale, it was translated into an ordinal classification of 3 levels (low-medium-high). In this adaptation, the highest score corresponded to the greatest severity (scores 4 to 5 according to the system of reference), the medium score corresponded to range 3 and the lowest to scores 1 and 2 in the original system. In order to establish this, we followed the criteria of 5 expert judges, whose 80% agreement was considered to be adequate (Tornimbeni, Pérez, Olaz & Fernandez, 2004).

We worked with the collaboration of three psychologists, who elaborated a grid of categories consisting of two broad macro-categories: risk indicators and protection indicators. The variables for both constructs were initially graded dichotomically, that is, by pointing out the presence or absence of risk or protection factors, depending on whether these were considered to be favorable or unfavorable from the theoretical point of view. Later they were re-elaborated into ranges of ordinal level measurement. Risk indicators for family vulnerability of any kind were taken to be direct, that is, specific (for instance, having suffered, on some occasion, a non-accidental injury connected to home violence) or indirect, that is, derived from the observation of social or school behavior and of the parental behavior as expressed by the key informants (teachers) or the children themselves.

Weekly meetings were held, where each case was assessed following the data recorded in the interviews, taking care that the person analyzing the interviews was not the same who had administered it. The grid was split into subcategories, following the criterion of relevance from the socio-developmental point of view, and based on the ecological model (Bronfenbrenner, 1987; Belsky, 1993). As for those variables relating to the children themselves (ontosystem), the aspects considered were connected to the human capital (health and education), following Golovanesky (2007), which included the evaluation of learning according to the teachers' criteria, the presence of significant illnesses and medical checkups. The assessment of the value of positive aspects or strengths mentioned by the informants was also included. Among the variables in the immediate environment (microsystem), we included the kind of family, the support of the close family network, the existence of satisfactory relationships with peers and adults, the functional characteristics of the home, attendance to school and out-of-school activities. With respect to the contextual variables of the meso- and exosystem, we took into account the features of the social networks, such as social and family support, risk in the neighborhood and the job situation of the caretakers. The variables are described below:

- Ontosystem (human capital, health and education)
  - Presence or absence of learning difficulties and/or antecedents of having needed to retake failed grades.
  - Chronic or significant diseases
  - Perception of positive aspects (strengths) in the child
- Microsystem (family composition and dynamics, school, habitat and close support network)

- Attendance to school
- Relationship with peers
- Attendance to health checkups
- Presence or absence of risk indicators for abuse at any level of severity
- Family configuration, number of children and intergenetic intervals among them
- Support by the close family network (father, mother, siblings, people cohabiting with the child)
- Distribution of home spaces
- Out-of-school recreational activities
- **Mesosystem and Exosystem (social capital and social networks):**
- Support by the extended family network (non-cohabiting grandparents, uncles and aunts, godparents, relatives)
- Employment (stable - unemployed - underemployed - social help beneficiary)
- Informal support network (neighbors, reference social groups)
- Geographical area where the neighborhood is located and kind of security available

## **2.2. Information Analysis**

### *Categories of Analysis for Cognitive Abilities*

Cognitive abilities were evaluated following the claims of Spivack, Platt and Shure (1976) and of García Pérez and Magaz Lago (1998), together with other contributions (Ison & Morelato, 2008). They were classified into:

- *Ability to identify the problem situation:* This ability is evaluated by presenting a social interaction situation in which the child needs to decide whether a problem exists for the protagonist of the story or not.
- *Ability to describe a problem in a concrete and operative manner:* This ability is detected by observing how the child narrates and characterizes the problem. Problems occur because somebody fears, wishes, needs or is concerned about something.
- *Ability to identify the emotion involved in a problem situation:* The identification of the emotional state of the protagonist of the story presented in the test situation is what allows one to determine whether the child has identified the existence of a problem. If the character is calm, contented, happy or satisfied, "the character has no problems"; if anger, sadness, anxiety, shame or any other negative emotion is detected, the character "has a problem".
- *Ability to generate the highest number of possible alternatives:* Alternatives are all those options that constitute or may constitute a solution to the problem.
- *Ability to anticipate possible consequences:* For each of the previously generated alternatives, the largest number of possible effects that each of the solutions -whether positive or negative- could have, are considered.
- *Ability to make decisions:* This ability involves the selection of a good solution, that is, that which entails the greatest benefit in the short and long run for the protagonists of the story and which may be implemented in the context given.

## **2.3. Categories of Linguistic Analysis**

For the linguistic evaluation, each construct or cognitive ability expressed in the children's responses was analyzed as a statement (Kerbrat-Orecchioni, 1997). Statements are defined as what the speaker says, that is, the emission of a speech act in context. The enunciation of a statement is understood as the presence of said statement in its own discourse, and the enunciation situation, as the set of spatial-

temporal circumstances and general conditions intervening in the process of production/reception of the message, including the socio-historical context and the nature of the channel.

According to Searle (1994), the speech act taxonomy includes *assertive, directive, commissive, expressive and declarative speech acts*.

- *Directive Speech Act*: a statement whose force is oriented to having the listener take a particular action at a later time.
- *Assertive Speech Act*: one that commits a speaker to the truth of the expressed proposition, that is, one that shows the speaker's subjective commitment to what is being stated.
- *Commissive Speech Act*: one that commits (or subscribes) a given speaker to the performance of a future act or action.
- *Expressive Speech Act*: a statement that expresses the speaker's emotions or affective state in the face of a given fact.
- *Declarative Speech Act*: one that changes reality in accord with the proposition of the declaration. In saying, one is actually doing something.

### 2.4. Statistical Analysis

In order to characterize family vulnerability, a series of ranges were used. These were constituted on the basis of measures of position (quartiles). Variance Analysis was used to detect the presence of differences across the different levels of risk for family vulnerability. The margin of error considered was 5%. For the analysis of the content of discourse the strategy of triangulation by observer was used in order to ensure the reliability and validity of the results.

### 3. RESULTS

**Table1.** Diagnostic by presence of indicators of family vulnerability (child abuse). Distribution by range and percentage.

Diagnosis by family vulnerability (indicators of child abuse) N= 120					
High		Medium		Low	
f	%	f	%	F	%
42	35%	53	44.2%	25	20.8

Table 1 shows the ranges of indicators of family vulnerability (child abuse) and their distribution by percentage. It can be seen that the greatest percentage was concentrated in the medium range, that is, 44.2% of the children have a medium range of risk, as follows from the presence of indicators of family vulnerability.

**Table2.** Indicators of protection in the social and family context. Distribution by range and percentage.

Context protection index N= 120					
High		Medium		Low	
f	%	f	%	f	%
50	41.7	45	37.5	25	20.8

Table 2 displays the distribution of the factors of protection of the children's socio-family context by percentage and by range. It may be seen that the greatest percentage concentrated in the higher range, that is, 41.7% of the children presented a high range of protective factors in context.

**Table3.** Variance Analysis (ANOVA) for speech acts by family vulnerability range

Speech Acts	Diagnosis by family vulnerability (indicators of child abuse) N= 120						gl	F	p	f
	high (n= 42)		medium (n= 53)		low (n= 25)					
	M	D	M	D	M	D				
<b>Assertive</b>	18.52	7.67	18.89	7.18	16.84	8.51	2	0.629	.535	-
<b>Directive</b>	4.57	2.85	4.11	2.81	3.76	3.99	2	0.573	.565	-
<b>Declarative</b>	0.00	0.00	0.00	0.00	0.00	0.00	2	-	-	-
<b>Commissive</b>	0.00	0.00	0.15	0.77	0.12	0.44	2	0.923	.400	-
<b>Expressive*</b>	<b>2.40</b>	<b>1.91</b>	<b>2.38</b>	<b>2.10</b>	<b>3.64</b>	<b>2.56</b>	<b>2</b>	<b>3.365</b>	<b>0.038</b>	<b>0.29</b>
*Multiple comparisons: Dunnett T3 test (between high and low) 1.235 p < 0.046										

Table 3 displays the results of the Variance Analysis. This table indicates that children at high risk for family vulnerability presented significantly less expressive speech acts than children in the low range.

**Table4.** Variance Analysis (ANOVA) for cognitive problem-solving abilities by family vulnerability range

Cognitive abilities	Diagnosis by family vulnerability (indicators of child abuse) N= 120						gl	F	p	f
	high (n= 42)		medium (n= 53)		low (n= 25)					
	M	D	M	D	M	D				
<b>Problem description</b>	2.64	0.53	2.72	0.60	2.56	0.71	2	.597	.552	-
<b>Identification of Emotion*</b>	<b>2.14</b>	<b>0.93</b>	<b>1.96</b>	<b>0.96</b>	<b>2.64</b>	<b>0.64</b>	<b>2</b>	<b>4.940</b>	<b>.009</b>	<b>0.23</b>
<b>Generation of alternatives</b>	5.40	2.04	4.98	2.08	5.60	1.78	2	.976	.380	-
<b>Irrelevant alternatives</b>	0.57	0.80	0.55	0.93	0.64	1.03	2	.089	.915	-
<b>Positive consequences</b>	3.88	2.14	3.96	2.22	4.32	2.30	2	.329	.721	-
<b>Negative consequences**</b>	<b>1.17</b>	<b>1.30</b>	<b>0.64</b>	<b>1.03</b>	<b>0.64</b>	<b>0.90</b>	<b>2</b>	<b>3.027</b>	<b>.052</b>	<b>0.27</b>
<b>Irrelevant consequences</b>	1.12	1.04	1.23	1.31	1.28	1.59	2	.142	.868	-
<b>Decision making</b>	2.19	0.91	2.49	0.97	2.32	0.75	2	1.288	.280	-
*Multiple comparisons: Dunnett's T3 test (between low and high) -.540 p< 0.03										
**Multiple comparisons: Dunnett's T3 test (between low and medium) -.525 p< 0.046										

With respect to the analysis of the cognitive abilities for interpersonal problem solving, the results on Table 4 indicate that children at low risk for the presence of indicators of child abuse (less family vulnerability) identified more emotions than the children in the high family vulnerability range. On the other hand, children in the medium vulnerability range anticipated significantly more negative consequences than the children in the low range.

**Table5.** Variance Analysis (ANOVA) for cognitive problem-solving abilities according to family protection range

Cognitive abilities	Range of protection factors in the family context						gl	F	p	f
	high (n= 50)		low (n= 25)							
	M	D	M	D	M	D				
<b>Problem description</b>	2.68	2	2.56	0.66	2.80	0.50	2	1.394	.252	
<b>Identification of Emotion*</b>	<b>2.42</b>	<b>2</b>	<b>2.04</b>	<b>0.98</b>	<b>1.88</b>	<b>0.97</b>	<b>2</b>	<b>3.665</b>	<b>.029</b>	<b>0.30</b>
<b>Generation of Alternatives (total)</b>	<b>5.78</b>	<b>2</b>	<b>4.91</b>	<b>1.94</b>	<b>4.84</b>	<b>2.03</b>	<b>2</b>	<b>2.993</b>	<b>.054</b>	<b>0.27</b>
<b>Irrelevant Alternatives</b>	0.44	2	0.67	0.95	0.68	1.06	2	.956	.387	-
<b>Positive Consequences</b>	4.44	2	3.67	2.43	3.76	1.80	2	1.680	.191	-
<b>Negative consequences**</b>	<b>0.88</b>	<b>2</b>	<b>0.53</b>	<b>0.81</b>	<b>1.24</b>	<b>1.45</b>	<b>2</b>	<b>3.342</b>	<b>.039</b>	<b>0.28</b>
<b>Irrelevant consequences</b>	1.00	2	1.40	1.32	1.24	1.12	2	1.174	.313	-
<b>Decision making</b>	2.46	2	2.18	9.84	2.44	1.16	2	1.290	.279	-
*Multiple comparisons: Dunnett's T3 test (between low and high) -0.540 P < 0302										
**Multiple comparisons: Dunnett's T3 test (between low and high) -1.491 P < 050										

Finally, after analyzing the cognitive problem-solving abilities and their connection with the levels of protection from the social context, the results, as shown in Table 5, indicate that children who enjoy greater levels of protection factors identified significantly more emotions and displayed a clear tendency to generate more solution alternatives, when compared with children within the lower range. The latter group (that with a higher range of protective factors) anticipated significantly less negative consequences than those children in the lower range of protective factors.

**4. DISCUSSION**

The results of this study showed, in the first place, that the higher percentage of family vulnerability indicators is concentrated in the medium range (see Table 1), which is a trend that could be expected from the statistical point of view, as distributions tend to concentrate in the scores that are close to the mean, or, in this case, the medium ranges. However, Table 2 shows that the highest percentage of contextual protection factors is concentrated in the higher range. This is probably related to the fact that the evaluated group is not a clinical group; that is, it is not formed strictly by children who are involved in situations where child abuse has been confirmed, but rather by children in a socially vulnerable environment. This may lead us to think that, in spite of these conditions, one can often rely on a broad range of protective factors that may be taken as resources. Current approaches to risk, among them the studies of resilience, have shown that although risk determines serious pathologies in many individuals, there are many cases where they can overcome adversity and develop as could be

anticipated for their developmental stage (Melillo, Suárez Ojeda & Rodríguez, 2004). In this case, the appearance of a broad range of protective factors may be considered as valuable potential assets to be acknowledged and strengthened.

In addition, when we analyzed variances and explored the modality of children's discourse, that is, their speech acts (see Table 3), it was observed that children in the high family vulnerability range presented significantly less expressive speech acts than children in the low range. This indicates that children who are more prone to suffering situations of child abuse displayed less verbalizations that could express emotional aspects. In line with this, when we analyzed their cognitive abilities, we also observed that the more vulnerable group showed significantly less identification of emotions than the children in the lower range (see Table 4). There are studies explaining that children who have experienced situations of abuse may display difficulties in emotional regulation (Cicchetti & Rogosch, 1997; Flores, Cicchetti, & Rogosch, 2005). This depends, in part, on the characteristics of the family environment. For example, neglected children, whose environment is more limited in terms of emotional experiences, have greater difficulties for emotional discrimination. Additionally, within the family environment, children who are the victims of different kinds of abuse may learn that it is unacceptable, threatening, or dangerous to discuss their feelings and emotions, particularly if these are negative. Thus, they tend to express their emotions less through words (Cicchetti, 2001; Ison & Morelato, 2008). Gracia (2002), in turn, claims that in the parent-child interactions in groups at risk for violence, parental behavior is characterized by the presence of less physical and verbal expressions of warmth and affection and by higher levels of hostility, aggressiveness, indifference, negligence and rejection. This probably affects children's emotional expressiveness, given that warmth in the family environment favors emotional regulation (Shipman, Edwards, Brown, Swisher & Jennings, 2005), as well as the development and expression of its language (Moreno Manso et al., 2008).

Further into the analysis, it could also be observed that the group with the higher range for family vulnerability anticipated significantly more negative consequences than the children in the lower range. In contrast, and in connection with the contextual levels of protection by the social context, it could be seen that children who had a high level of protective factors identified significantly more emotions, tended to generate more alternatives and anticipated less negative consequences than the children with a lower level of protection (see Table 5). In relation with this finding, Parkinson and Creswell (2011) claim that some children's difficulties in problem-solving abilities tend to be associated with their negative beliefs, that is, with their scarce personal confidence that they can sort out the problems that concern them, added to the perception that they have low control over themselves. These authors point out that these beliefs affect the generation of alternatives and reduce the efficacy in the choice of solutions, but are not necessarily associated with a specific deficit in these abilities. In other words, quoting Dugas, Letarte, Rheaume, Freeston and Ladouceur (1995), negative beliefs maintain high levels of concern and anxiety, which is related with a tendency to solve the problem in an inadequate way. Likewise, Greco and Ison (2011) indicate that the children who manifest a greater tendency to express positive emotions (happiness, joy, hope and well-being, among others), also display greater capacity to generate assertive alternatives of solution and to anticipate more positive consequences than children who show low values in the expression of positive emotions. Thus, our observation that children with higher family vulnerability anticipate more negative consequences and that those with more protective resources display the contrary, can be connected with an affective tonality of expectation of fear or sadness, which reveals concern about their environment and negative beliefs and expectations regarding what may happen (consequences); in short, a feeling of greater defenselessness and helplessness.

## 5. CONCLUSIONS

The goal of this study was to analyze the cognitive abilities involved in interpersonal problem-solving and their connection with speech acts in children from vulnerable social contexts. In these contexts, characterized by difficulties with housing, employment, and support networks at the family, community and social levels, and by the lack of financial resources and existence of obstacles to the access to education and health, we evaluated the presence of some indicators related with emerging family vulnerability or child abuse. From the perspective of the findings in our study, we consider it would be helpful, in such environments, to stimulate the capacity to express and discriminate among emotions and the ability to consider alternative solutions that may lead to possible and more positive consequences. This could be viable through socio-educational programs for children, but more



specifically for those actors in the children's more immediate context whose influence may weigh more heavily on child development, such as parents and teachers. In the school context, it is important to orient teachers not only as to the importance of offering assertive and directive indications, but also of integrating affective aspects into the achievement of specific tasks, both intellectual and social. In this way, a focus on the child's strengths and not only on his or her limitations paves the way for the words, the play and the tasks that allow children to create and to think. In addition, as one works on the potentialities expressed in language, it is possible to encourage children to rely on their strengths and those in the environment (Grotberg, 2001). From the perspective of resilience and language as a resource, it is necessary to search for ways to re-signify experience to have better perspectives for development.

To conclude, it is necessary to point out that the above is only a brief contribution intended to orient some actions in school contexts in socially vulnerable areas. This contribution is intended to be part of a much broader set of comprehensive interventions, ranging from the micro- to the macro-social, aimed fundamentally at protecting children as subjects of rights and fostering their well-being. Our contribution underscores the importance of taking a preventive approach and performing early evaluations in contexts of risk, that is, when the problem of abuse has not become established yet and is at the stage where it has not reached extreme severity. This allows for a better prevention of any negative consequences on development and for the avoidance of such intrusive interventions as those by special child abuse units, with the ensuing stigmatization and attachment of labels, thus increasing the chances for success with an informal approach based on support and education (Gracia, 2002). Among the limitations in this study, we would like to point out the fact that the sample of children studied is not representative of the population, and so the results obtained cannot be generalized to it. In spite of these limitations, the results of this study are in line with the findings of other pieces of research in the area.

We would like to point out that this study articulated knowledge from the areas of psychology and linguistics. This articulation was aimed at designing new kinds of intervention and support strategies for children, parents and teachers, with a view to integrate interdisciplinary knowledge contributed by both sciences.

#### **ACKNOWLEDGEMENTS**

The Secretariat of University Policies of the Ministry of Education Argentina which funded this project.

#### **REFERENCES**

- A.P.R.O.S. (2010). *Método de análisis de las desigualdades sociales: conceptos y métodos. Manual de Alta de Programas Sociales*. Ministerio de Desarrollo Humano, Familia y Comunidad. Province of Mendoza. Argentina. Recuperado de <http://www.social.mendoza.gov.ar/desarrollohumano>.
- Austin, J. L. (2006). *Cómo hacer cosas con las palabras* [How to do things with words]. Barcelona: Paidós.
- Barnet, D., Manly, J.&D. Cicchetti. (1993). Maltreatment Classification System. In: D. Cicchetti, F. Rogosch, J.T. Manly and M. Lynch (2005). Longitudinal Pathways to Resilience in Maltreated Children. User guide and codebook. *National Data Archive on Child Abuse and Neglect*, 110. Available at <http://www.ndacan.cornell.edu/NDACAN/Datasets/UserGuidePDFs/110user.pdf>.
- Belsky, J. (1993). Etiology of child maltreatment, a developmental-ecological analysis. *Psychological Bulletin*, 114 (3), 413-434. doi:10.1037/0033-2909.114.3.413
- Benveniste, E. (1977). *Problemas de lingüística general*. [Problems in General Linguistics]. Mexico: Siglo XXI.
- Bronfenbrenner, U. (1987). *La ecología el desarrollo humano: experimentos en entornos naturales y diseñados* [The ecology of human development: experiments in natural and engineered environments]. Barcelona: Paidós.

- Castel, R. (1995) De la exclusión como estado a la vulnerabilidad como proceso. *Archipiélago*, 21, 27-36.
- Cicchetti, D. (2001). The impact of social experience on neurobiological systems: illustration from a constructivist view of child maltreatment. *Cognitive Development*, 17 (3-4), 1407-1428. doi: 10.1016/S0885-2014(02)00121-1
- Cicchetti, D. &F. Rogosch (1997). The role of self organization in the promotion of resilience in maltreated children. *Development and Psychopathology*, 9, 797-815. doi:10.1017/S0954579497001442
- Dugas, M. J., H. Letarte, J. Rheume, M. H. Freeston, and R. Ladouceur (1995). Worry and problem solving: Evidence of a specific relationship. *Cognitive Therapy and Research*, 19, 109–120. doi:10.1007/BF02229679
- Ehrensaft, E. &M. Tousignant (2003). Ecología humana y social de la resiliencia. En M. Manciaux (ed.). *La Resiliencia: resistir y rehacerse* [Resilience: resist and rebuild].Barcelona: Editorial Gedisa.
- Escandell, M. (1996). *Introducción a la pragmática*[Introduction to pragmatics].Barcelona: Ariel.
- Flores, E., D. Cicchetti, & F. Rogosch (2005). Predictors of resilience in maltreated and non-maltreated Latino children. *Developmental Psychology*, 41 (2): 338-351. doi:10.1037/0012-1649.41.2.338
- García Pérez J.& A. Magaz Lago (1998). *Test de evaluación de habilidades cognitivas para la solución de problemas interpersonales. Evhacospi*. [Evaluation of cognitive skills to solve interpersonal problems. Evhacospi].Manual de referencia. España: Albor-Cohs.
- Giberti, E. (2005). *La familia a pesar de todo*[Family for all that]. Buenos Aires: Noveduc.
- Golovanesky, L. (2007). Vulnerabilidad Social: una propuesta para su medición en Argentina. *Revista de Economía y Estadística*. Instituto de Economía y Finanzas - Facultad de Ciencias Económicas. Universidad Nacional de Córdoba – Argentina, 45(2), 53-94.
- Gracia, E. (2002). El maltrato infantil en el contexto de la conducta parental: Percepciones de padres e hijos. *Psicothema*, 14(2) 274-279.
- Greco, C.& M.Ison (2011). Emociones positivas y solución de problemas interpersonales: su importancia en el desarrollo de competencias sociales en la mediana infancia. *Perspectivas en Psicología*, 8, 20-29.
- Grotberg, E. (2001). Nuevas tendencias en resiliencia. In A. Melillo & N. Suárez Ojeda (2001). *Resiliencia. Descubriendo las propias fortalezas* [Resilience. Discovering one's own strengths]. Buenos Aires: Paidós.
- Hernández Sampieri, R., C. Fernández Collado&P. Baptista Lucio (2006). *Metodología de la investigación* [Research Methodology] (4ta ed.). Mexico: Mc Graw Hill.
- Hussey, J., J. Marshall, D. English, E. Knight,A. Lau, H. Dubowitz&J. Kotch (2005). Defining maltreatment according to substantiation: Distinction without a difference?.*Child Abuse and Neglect*, 29, 479-492. doi:10.1016/j.chiabu.2003.12.005
- Ison, M.& G. Morelato (2008). Habilidades socio-cognitivas en niños con conductas disruptivas y víctimas de maltrato. *Revista Universit as Psychologica*. Bogotá: Pontificia Universidad Javeriana, 7(2) 47-57.
- Kerbrat-Orecchioni, C. (1997). *La enunciación de la subjetividad en el lenguaje* [The enunciation of subjectivity in language]. Buenos Aires: Edicial.
- Lázaro, S. (2009). Resiliencia en niños y adolescentes: revisión teórica e implicaciones para la intervención psicoeducativa en situaciones de maltrato familiar. *Estudios de psicología*, 30 (1), 89 – 104. doi:10.1174/021093909787536254
- Luthar, S.S., D. Cicchetti &B. Becker (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child Development*, 71(3), 543-562. doi: 10.1111/1467-8624.00164
- Melillo, A., N. Suárez Ojeda &D. Rodríguez (2004). Resiliencia y subjetividad [Resilience and subjectivity].Buenos Aires: Paidós.

- Morelato, G. (2008). *Resiliencia en el maltrato infantil: evaluación de factores individuales, familiares y escolares en base a un modelo ecológico*. Proposal for post-doctoral scholarship awarded in October 2009. CONICET.
- Morelato, G. (2011). La resiliencia en el maltrato Infantil: aportes para la comprensión del proceso desde un modelo ecológico. *Revista de Psicología*, 29 (2), 203-224.
- Moreno Manso, M., M. E. García-Baamonde & M. Blázquez Alonso (2008). Habilidades psicolingüísticas y dimensiones de inadaptación en niños en situación de acogimiento residencial. *Revista de Logopedia, Foniatría y Audiología*, 28(3), 166-177.
- Nears, K. (2004). *Resilience in maltreated children*. Thesis (M.S.). North Carolina State University. Accessed from: <http://www.lib.ncsu.edu/resolver/1840.16/615>
- Parkinson, M.&C. Creswell (2011). Worry and Problem-solving Skills and Beliefs in Primary School Children. *British Journal of Clinical Psychology*, 50, 106–112. doi:10.1348/014466510X523887
- Searle, J. (1994). *Actos de habla. Ensayo de filosofía del lenguaje*. [Speech Acts. Testing philosophy of language]. Barcelona: Cátedra.
- Shipman, K., A. Edwards, A. Brown, L. Swisher, & E. Jennings (2005). Managing emotion in a maltreating context: A pilot study examining child neglect. *Child Abuse & Neglect*, 29, 1015–1029. doi:10.1016/j.chiabu.2005.01.006
- Spivack, G.; J. J. Platt, & M. D. Shure (1976). *The Problem Solving Approach to Adjustment*. San Francisco, CA: Jossey Bass.
- Tornimbeni, S., E. Pérez, F. Olaz & A. Fernández (2004). *Introducción a los test psicológicos*. [Introduction to the psychological tests]. (3rd edition). Córdoba-Argentina: Brujas.