

## **Mexican Children's and Adolescents' Perceptions, Explanations, and Judgments about Street Information Related to Economic Literacy**

Evelyn Diez Martinez  
*Universidad Autónoma de Querétaro, Mexico*

### **Abstract**

The study of the impact of everyday floating information on children's knowledge about diverse aspects of their social world has hardly been studied concerning their understanding about socio-economic knowledge. Though several studies have analyzed children's and adolescents' behavior related to the impact of socialization agents on their consumption habits, little is known about how and when they start analyzing several sorts of everyday communication situations concerning economic interchanges. Communication is a much more expansive term than language, even if one of the main levels of language is macro-social communication. Two principal functions of communication are: (1) the exchange of information and (2) the creation of social relationships. In Mexican society, informal messages related to economic information that are written in public spaces are very important due to the fact that access to other forms of information distribution are restricted to and for some social groups. This study explores forms of communication in society as an object of children's thinking and seeks to identify the prerequisite psychological competences children must have in order to "think" society.

A group of Mexican children and adolescents was interviewed orally using a number of cards including photographs of street advertisements and information about economic aspects. Researchers asked the subjects to describe each photograph, explain its contents and identify the type of information or communication situation that it depicted. Some examples were: a sign of money on the window of a car, a string with little flags on the edge of a house, and hand-written signs such as; "we are on sale", "for rent", "credit cards accepted", etc. Results show defined cognitive developmental trends and point to socioeconomic influences on subjects' answers. These results are discussed within theoretical frameworks of children and adolescent socioeconomic development and social-cultural approaches to economic literacy.

### **Introduction**

Depending on the theoretical or practical interest of researchers the development of socioeconomic thought has been considered as consumer socialization, economic socialization, or for some authors interested in education what is undertaken as "economic literacy" (Yamane, 1996). The concept of economic literacy would be related not to an expert knowledge of the economy, but instead to those conceptual and practical elements that allow subjects to establish and comprehend the various economical activities which constitute every

day life (e.g., buying and selling of products and the profit that is derived from the transaction; exchanging goods for commodities; understanding the value of currencies and notes; earning a salary and the money which someone is paid; understanding simple banking activities, saving; knowledge of different types of occupations, understanding of what someone has to do to get or lose a job, etc.). The relationship between the child/adolescent and the institutional economic world have been widely examined from two different points of departure; (1) the economic actions in which subjects are involved (the child as an economic subject) and (2) the developmental comprehension of attitudes and ideas of economic questions normally mentioned by adults (processes by which children and adolescents understand economic institutions). Nevertheless both approaches are concerned with what children and adolescents comprehend of socio-economic systems as well as their conceptual development of understanding the net of interchanges that constitutes the economic structure of society. These initial categorizations that children establish become a salient aspect of their understanding of specific social practices and relationships. For example, while material goods indicate one's socioeconomic standing and social class, one's representation of possessions, consumer practices and lifestyles inevitably involve lay beliefs about stratification and social inequalities (Dittmar, 1992).

Most of the studies concerned with the development of societal and economic understanding have been conducted within a general stage framework, based on Piaget's theory, (Piaget and Inhelder, 1969; Berti and Bombi, 1988; Delval and Denegri, 2002). Although stage data within socio-cognitive theory vary, most models describe a similar progression. Around 3 to 7 years of age, children have some common knowledge about socio-economic situations. They observe people buying, selling, working, and all sort of economic interchanges. Children base their knowledge about situations on the concrete and visible aspects they imply. However their idea of socio-economic reality is comprised of pieces of unconnected and unrelated information. From about 8 to 11 years of age, children's socio-economic knowledge becomes increasingly integrated, since subjects start to process non-visible aspects of situations and begin to activate the ability to make inferences. They also start to distinguish personal relations from institutional ones and begin to consider the idea of limited resources. In the following stage from 12 to about 17 years of age, making inferences constitutes a central role in shaping adolescents' ideas on these matters and allows them to coordinate different points of view and to hypothesize.

Recently children and adolescents have been studied as consumers among researchers interested in economic socialization processes (Gunter and Furnham, 1998; Lassarre, 1996; Pliner, et al. 1996; Leiser and Ganin, 1996). Consumer socialization is the process by which consumers acquire the knowledge and skills necessary to operate as consumers (Ward, 1972; Ward, Wackman and Wartella, 1977). Chan and McNeal (2002) and Chan (2003) have stated that this process has received much attention from marketers and advertisers, parents, educators, and policy makers because each wishes to shape it. Marketers and advertisers are interested from the standpoint of designing effective ways to sell products and services to children. Parents are concerned about undesirable effects of marketing and advertising targeted to their children, and worry about them becoming materialistic. Educators are concerned about the teaching of proper consumer skills and rational purchase decision-making to children. Policy makers are interested in developing appropriate legislation to protect children's consumer rights. In the consumer socialization process, there are specific sources "socializing agents" from which norms, attitudes, motivations, and behaviors are transmitted to young consumers.

Despite many years of research by advertisers and social scientists, there is still no widely accepted model that characterizes how advertising influences young people. Advertising can potentially have a number of psychological effects on children. It may influence their knowledge of products and consumerism, their attitudes towards products and brands, and even their consumer values and purchase behavior. A great number of studies on commercial communication have focused on children's behavior concerning television advertising (Gunter and Furnham, 1998; Chan 2003), and some cases have studied this problem related to other forms of commercial communication. We were not able to find studies concerning street commercial communication advertising information in the forms of images, inscriptions, posters, signs, or concrete physical objects that transmit different sorts of information about socioeconomic interchanges as forms of socioeconomic and consumer socialization. Therefore how do commercial communications in these last presentational forms impact upon children's and adolescents' knowledge, attitudes and values concerning socioeconomic socialization and consumer behavior? And how do age, and specific socialization agents such as parents, school, peers and the pertaining to specific thoughts and customs in social groups affect the comprehension about this type of information? In the current study, children's understanding of commercial communications (or in this case, the understanding of street commercial messages) is viewed as a combination of a cognitive-psychological process of reasoning about one's environment and a social learning process with socializing agents.

Concerning children's experience as consumers, Lasarre (1996) has pointed out that most of the data on the consumption and budgeting of young people comes from market research, but does not tell much about the educative processes which are at the origin of the acquisition of economic habits and different uses of money, such as saving and spending. Pliner Abramovich and Darke (1996) summarizing several of their studies on the consumer skills of children between 5 to 10 years of age, found that children at five years of age have attained some level of consumer skill. They are reasonably knowledgeable about the prices of common objects, have some appreciation of prize-value relationships and can identify a bargain. Pepermans (1984) advocates that within survey research, the meaning of consumption should be as close as possible to the meaning that the population attaches to consumption: if not, it may lead to invalid comparisons of different concepts. In fact one must investigate subjects' perceptions about the actual meaning of consumption. He explains that because people are confronted daily with economic activities such as production and consumption, some may have a different opinion of consumption when compared with people who are less confronted with economic reality. We hypothesize that this is perhaps the case for children and adolescents and, therefore, it seems important to study their point of view.

Our group has conducted earlier studies about the effects of socialization agents on children's and adolescents' development of economic literacy. We have studied information included in Mexican school books about work and unemployment (Diez-Martinez, Sánchez and Miramontes, 2001), information about occupations that subjects recognize obtained through television, (Diez-Martinez et al 2000), and recently we analyzed children's and adolescents' ideas about adults' consumption and saving (2003). All of these studies have been conducted in the interest of defining specific impact of socialization agents on subjects understanding of socioeconomic knowledge. To date, most studies have focused on the impact of socialization agents on children's and adolescents' understanding of commercial communication or advertising via media. Nevertheless we do believe additional research is needed to define how the information processing of different types of messages via

commercial communication may influence children's and adolescents' understanding and development of socioeconomic knowledge.

### Material and Methods

Individual semi-structured interviews were carried out with subjects from 6 to 13 years of age, sampled from a public school in the suburbs of the city of Querétaro in Mexico. Children lived in a town approximately 20 minutes away from the city center. This town is semi rural in many aspects. Until about 10 years ago this was a town inhabited by peasants and small commercial retailers, though in recent years the population has sought jobs in a larger city or left Mexico to find work in the United States. Several parents of children interviewed have low levels of education, and there are still some that cannot read or write. This town has a bank, two exchange bureaus, and many small stores, (clothing, shoes, and food) that advertise merchandise or services by printed or handwritten ads. By questioning children, we were able to learn that they go to the larger city of Querétaro often, so they have access to a larger sample of commercial communications.

Our data collection technique consisted of the presentation of 16 half-page cards, 4 of which are discussed in this paper. The photos depicted information that is commonly seen in the streets and may also be found on children's surroundings. Subjects were tested individually in their schools, and the interview lasted approximately 25 minutes. Subjects were asked to describe the photograph and to explain its contents and the type of information or communication situation that it involved. A dialogue was established between subjects and the researcher, in order to obtain the subject's arguments for their answers. All interviews were audio taped and later transcribed.

### Results

This section includes a preliminary discussion of results generated thus far in our ongoing process of data analysis. We present fragments of subjects' discourse for some of the images included in the interviews, which allow us to establish their level of comprehension according to their age. From our transcriptions of the interviews, we extracted a small sample of subjects' answers to show children's ideas and thoughts about the different commercial information that we presented to them.

**IMAGE 1** - This image was included to analyze subjects' understanding of a money sign. It showed a photograph of a Volkswagen car with a money sign (\$) on a lateral window.

#### Quetzal (girl 6.4)

"What do you see in this photo?" "A car." "Do you see anything different or special?" "Yes that little number (pointing to the money mark)." "And what about the little number?" "That the car costs or something like that." "And why would that car have that little number?" "Hum...it's for sale". "If you wanted to buy a car what would you do?" "Save money, and ask where the store is to buy cars, and then I would have no money but I'd have a car."

#### Benjamin (boy 8.6)

"What do you see in this photo?" "A volks that is for sale." "And how do you know it's for sale?" "Because it says that there (pointing to the money mark)." "If you wanted to buy a car what would you do?" "Well I would call the owner and tell him I want to see the car and then I would pay."

#### Fabian (boy 10.5)

“What do you see in this photo?” “That it’s for sale.” “And how do you know it’s for sale?” “Because of this money mark (pointing at it).” “What would you do if you wanted to buy a car?” “I would save money.” “What’s to save?” “Put money together.” “And if you found a car like this one and you wanted to buy it, how could you do it?” “I look for the man that’s selling it, give him the money and that’s it.”

**Alejandra (girl 11.2)**

“What do you see in this photo?” “I see that the car is for sale” “And how do you know it’s for sale?” “When a car has one of those (pointing to the money mark) it has a price.” “What would you do if you wanted to buy a car?” “I would save money in the bank and just take it out when I have all I need and then buy the car.”

**Maria. De la Luz (girl 12.10)**

“What do you see in this photo?” “Well it’s a parked car for sale.” “How do you know it’s for sale?” “Because of the ad, (pointing to the money mark).” “And why do you think they put that ad for?” “To get rid of it or to get money.” “And what would you do to sell a car?” “You put the telephone and you wait for some one to call who is interested?” “And if someone is interested?” “Well he buys it and you get the money.”

**IMAGE 2.**-This image was included to analyze subjects’ understanding of flags hanging on properties to announce it for sale. It showed a photo of the entrance of a house with a string of flags hanging.

**Alexandra (girl 11.2)**

“Alexandra what do you see in this photo?” “It’s a celebration, for example the day of...they have to put something so they will know that it’s an invitation, so all the children will come and get together here.” “So it’s showing that there’s going to be a party?” “Yes.”

**Alicia (girl 12.3)**

“What do you think this photo could mean?” “Nothing, because there is nothing written, no ad.” “Look well.” “Well that is a lot and near a hotel.” “And that is all you see in the photo?” “This photo has nothing to do with selling or buying like the others, here they took the photo and then a saint went through and I think it stopped there, and it’s big and they left it all dirty.” “But why do you think a saint went through?” “Because of the little flags that were left.”

**Enrique (boy 13.4)**

“What do you think this photo could mean?” “Well, that a saint went through, I think the virgin, because I went to see her when she passed.”

**Manuel (boy 13.2)**

“Look Manuel, what do you see in this photo?” “What do you think this photo could mean?” “A party.” “Do you think there was a party?” “Yes, or a carnival or something like that.” “And why would you think there was a party?” “Because of this (points to the little flags), or maybe there was a party or a procession with a saint.” “And where have you seen these flags before?” “Well, some times they are used to announce other things, Chilo’s Seafood, and they put them on the very top of the building, welcome Chilo’s Seafood, and there were a lot of flags all over... ” “And that is all they are used for, have you seen them in another place?” “Well, where there are parties... .” “And if there was a street where there is no party, and no business and there are some flags?” “Well I told you that there was a party or a saint going through.”

**Carlos (boy 13.6)**

“What do you think this photo could mean?” “Well, that it’s for sale.” “And how do you know it’s for sale?” “Hum... well, maybe there is going to be a party because they are putting some little flags.” “So, what do you think?” “It can be on sale or maybe there will be a party.”

**IMAGE 3.** - This image showed a photograph of the outside of an ATM. With a sign that said “automatic cash machine”. It was included to see children’s comprehension about these ads and texts and their knowledge of a common adult situation that they have perhaps witnessed or experienced.

**Quetzal (girl 6.4)**

“Have you seen one of these in the street?” “Yes in many places.” “And what do you think they are?” “Something like a store.” “And what do you think they serve for?” “To sell things.” “To sell?” “Have you been to one with an ad like this one?” “No, but I have seen them downtown.” “Yes downtown there are some similar to this one, but these ads are automatic cash machines, you know what they are for?” “Yes to know how much things are worth.” “And what do you do to know how much things are worth?” “You pass the thing underneath and it tells you how much.”

**Benjamín (boy 8.6)**

“What do you see in this photo?” (silence) “Have you seen this type of ad in the street?” “Yes.” “And what do you imagine that is?” (silence) “It’s something about money or something like that, it’s to save, but I don’t really know.”

**Kiahui (girl 10.5)**

“What do you see in this photo?” “It’s a bank’s ad...about an automatic cash machine.” “And what does that mean?” “It’s a place where you put in a card and it gives you money.” “And that money?” “It’s what you are getting... what they put in your account” “Could you go take out money with a card?” “Yes if you have money and an account, yes.”

**Manuel (boy 13.2)**

“What do you see in this photo?” “This is to take out money from the bank.” “Have you been to one of those?” “Yes...you put in the card they tell you the number of the account, and then you write it down and they tell you how much money you have and how much you want to take out.” “And who does the money belong to or how does it get there?” “Well, sometimes it’s the factory that deposits it for the employee and he takes it out from the bank, it’s his pay but they deposit it in a bank....”

**IMAGE 4.** -This image showed a photograph of a poster outside a department store announcing 60% reduction on selected items. It was included since it is a common commercial ad in stores and we wanted to analyze subjects’ comprehension of the ad’s text meaning, the number and percent sign.

**Aokin (boy 7.3)**

“What about this photo?” “Imagine you are a fat person, then you eat something and you are a little bit thinner, you have a reduction of sixty percent.”

**Benjamin (boy 8.6)**

“What about this photo?” “It’s for, it’s...” “Why do they put those ads?” “It’s to.... Something that is worth 12 and they put it at 10.”

**Manuel (boy 13.2)**

“What about this photo?” “A product has a reduction of sixty percent with out restrictions, it’s for the whole store, and selected merchandise, is that you can select it.” “What is merchandise?” “In a store it’s the soap, milk, beans.”

### General Observations and Conclusions

Subjects' comprehension appreciated through these discourse fragments allow us to make the following preliminary observations: (a) the money mark is understood, even children as young as six, perhaps because it is frequently found in everyday life situations and also because children become consumers of goods that will be marked or advertised by money marks very early in development. Adults probably speak to children about the money symbol so they can detect prices, selling and buying, etc. Caregivers are the most important socialization agents in children's consumer education, at least before adolescence, when peers replace them. It seems interesting that money symbol serves as one of the earliest signs that children understand (even when they cannot read) in relation to economic interchanges. (b) the flags that we included as signs of a lot for sale were understood by most of the subjects interviewed as indications of a party, celebration or the passing of a saint. Nevertheless one subject speaks of using flags as way to show people that a business is opening, but he fails to mention the commercial communication of flags. Only one of the subjects speaks of flags as objects that symbolize economic interchanges related to selling and also mentions them as celebration indicators. These answers are consistent with everyday life in a small town in Mexico, where flags are forms of decorating during religious celebrations and are not often used for selling purposes. While we have not yet been able to completely transcribe our interviews with upper-middle class subjects from the larger city in our corpus, most of the subjects responded that hanging flags stand for selling. Therefore the same flags have different meanings for children of the same ages who live in different environments and see different practices by adults and members of their community. (c) the image with the ad and text advertising a cash machine is related to economic interchanges even by the youngest subjects. This is an interesting result since we have found no information on this matter elsewhere. It is important to notice that the photo says nothing about a bank: it has no money sign, but includes the name of the object (automatic cash machine) and another text ("red"/"network") that is included in every cash machine in Mexico. It allows users to know which cards are accepted at the ATM. Even if subjects knew that this photo is related to economic interchanges, the understanding of what the cash machine is for follows a developmental trend. The youngest girl says that it has to do with a store and speaks about actions related to a store and the discernment of prices. With age subjects start to infer the real meaning and function of the cash machine; (d) the image related to reduction of sixty percent in prices also shows a developmental trend. While the youngest understands the word "reduction" as a physical reduction in weight the rest of subjects show their understanding of the ad related to prices.

Naturally we can expect that the interpretation of any of the images presented could be influenced by age, experience or social and cultural status, but the results obtained by the method we used show clearly how and when different type of variables are underlying meaning of the image, economic and commercial knowledge as well as differences in semantic aspects according to the form of presentation of the information. That is signs: objects that serve as icons, or symbols and written texts.

As we stated above, the understanding by children and adolescents of communication through advertising commercial communications or different information included in mass media should be approached by researchers from several angles at the same time, as well as undertaken through specific areas or domains involved in the different sorts of knowledge included in the real life environment that allows subjects' cognitive development

as well as their social and cultural interchanges. Additional studies are needed to investigate the development of societal and economic understanding. It is crucial that these studies carefully identify and delineate the multiple variables that may contribute to a more in-depth characterization of the socio-cognitive processes involved in this area. Such studies could provide theoretical and factual elements to enhance possible applications in school curriculum, which in turn could be used to promote young people's involvement and discussion of economic and social aspects of their society. Finally the author would like to say that this paper should be considered as a pilot study because of the reduced number of subjects interviewed until now and because of the fact that these results still have to be confirmed with a larger number of subjects and with children and adolescents from diverse social origins. Nevertheless these data show the importance of studying children's and adolescents' understanding of forms of communication involved in their everyday life situations and provides for elements to continue research on these matters.

*Acknowledgments: This work was partially sponsored with a research grant by CONCYTEQ (Consejo de Ciencia y Tecnología del Estado de Querétaro, Queretaro Science and Technology Council).*

### References

- Berti, A.E. & Bombi, A.S. (1988). *The Child's Construction of Economics*. Cambridge: Cambridge University Press.
- Chan, K. (2003) *A cross-cultural perspective on children's understanding of commercial communications*. Keynote paper presented at the Economic Socialization Conference, Exeter, UK. July 11-12.
- Chan, K. & McNeal, J. (2002). *How Rural Children in China Consume Media And Advertising International Journal of Advertising and Marketing to Children*.
- Delval, J. & Denegri, M. (2002). Concepciones evolutivas acerca de la fabricación del dinero. *Investigación en la escuela*, 48, 39-54.
- Diez-Martinez, E. Miramontes, & S. Sánchez, M. (2000). Las ocupaciones como elementos de la "alfabetización económica" y su reconocimiento a través de la televisión: un estudio evolutivo con niños y adolescentes. *Revista Comunicación y Sociedad*, 37, 129-158.
- Diez-Martinez, E. Sánchez, M. & Y Miramontes, S. (2001). Análisis descriptivo de los contenidos del libro de texto gratuito para el alumno de primaria sobre "alfabetización económica": el caso del trabajo y las ocupaciones. *Revista Mexicana de Investigación Educativa*. Vol. 12, pp. 263-282.
- Diez-Martinez, E., & Ochoa, A. (2003). Children's and Adolescents' development of occupational hierarchy related to consumption and saving. *Journal of Citizenship, Social and Economics Education*, Vol. 5, (3), 148-161.
- Dittmar, H. (1992). *The Social Psychology of Material Possessions: To Have is to Be*. Hemel Hempstead: Harvester Wheatsheaf.
- Gunter, B. & Furnham, A. (1998). *Children as Consumers*. London, Rutledge.
- Lasarre, D. (1996). Consumer education in French families and schools. In: Lunt, P. & Furnham, A. (Eds.) *Economic Socialization: The Economic Beliefs and Behaviours of Young People*. Cheltenham, UK: Edward Elgar.



- Leiser, D. & Ganin, M. (1996). Economic participation and economic socialization. In: Lunt, P. & Furnham, A. (Eds.) *Economic Socialization. The Economic Beliefs and Behaviours of Young People*. Cheltenham, UK: Edward Elgar.
- Pepermans, R. (1984). The meaning of consumption, *Journal of Economic Psychology*, 5, 281-306.
- Piaget, J. & Inhelder, B. (1969). *The psychology of the child*, New York: Basic Books, Inc.
- Pliner, P. Freedman, J. Abramovich, R., & Darke, P. (1996). Children as consumers: in the laboratory and beyond. In: Lunt, P. & Furnham, A. (Eds.) *Economic Socialization. The Economic Beliefs and Behaviours of Young People*. Cheltenham, UK Edward Elgar.
- Ward, S. (1972). Children's reactions to commercials. *Journal of Advertising Research*, 12 (April), 37-45.
- Ward, S., Wackman, D. B., & Wartella, E. (1977). *How children learn to buy: The development of consumer information processing skills*. Beverly Hills, CA: Sage Publications, Inc.
- Yamane, E. (1996). Another framework for the scope and sequence of economic education in elementary school. *Children's Social and Economics Education*, Vol. 1, (3), 194-207.