Enhancing Positive Perception of School: A Model for Hispanic Students Doing Well in School

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LOYOLA UNIVERSITY OF CHICAGO

ENHANCING POSITIVE PERCEPTION OF SCHOOL:
A MODEL FOR HISPANIC STUDENTS DOING WELL IN SCHOOL

THESIS SUBMITTED TO
THE FACULTY OF THE GRADUATE SCHOOL
IN CANDIDACY FOR THE DEGREE OF
MASTER OF ARTS

DEPARTMENT OF CURRICULUM, INSTRUCTION AND EDUCATIONAL PSYCHOLOGY

BY
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A Model of Intervention for Successful Hispanic Students

Hispanic adolescents "are nearly two years behind African-Americans in years of school completed. Their dropout rates are nearly twice those of African-American and non-Hispanic white youth. In addition, Hispanic students are frequently several years below grade level in American public schools" (Spencer & Dornbusch, 1993, p.141). This information has become a common point in the analysis of school failure, but diverse efforts to enhance Hispanic students' achievement and curb the percentage of dropping out of school, have not been successful. As a contrary fact, however, every year a non-negligible number of Hispanic students graduate from high school, and even attempt to enter college. The strategies utilized by academically successful Hispanics, despite poverty and minority status, and the cognitive processes underlying those strategies have received little attention in educational research and programs of intervention.

One of the reasons for this lack of attention on successful students may be the frequency with which minority youth are viewed as part of a group showing problems in different areas. This has led researchers to work with a "deficit model." According to this model, "minority youth perform poorly in school and later on the job because their family background is deprived, deficient or deviant compared with white middle-class norms"
(Spencer & Dornbusch, 1993, p.126). Thus, most existing research has been based on deviance or a deficit perspective (Feldmann & Elliot, 1993), in which the "social address" (Bronfenbrenner, 1988) is used to offer a logical explanation for the concurrent problems in these populations. As students depart from the standard conditions that current research establishes as appropriate and favorable for normal development, more disturbances and problems appear. Given the condition of the vast majority of Hispanics, their problems constitute the main focus of the attention of researchers.

Another reason why intervention programs do not include high- or average-achieving students is the criteria to target students at risk of dropping out school. These criteria are mostly based on either attendance rate, academic achievement level, absenteeism, course failures, or the combination of these factors (Reyes & Jason, 1993). Students performing above the average level, by definition, cannot fall under the category at risk, and usually are not included in prevention programs even if their own potential for development is at risk. Prevention programs, pressed by constant evidence of school failure, have typically invested efforts in decreasing the level of dropping out of school. Some of these programs have been based on models of prediction in academic achievement that considered both personal characteristics and environmental influences. By acknowledging the role of home and neighborhood upon the educational goals, these programs have tried to involve parents in school and out-of-school activities (e.g., Haynes, Comer, & Hamilton-Lee, 1989), to modify the environmental setting (e.g., Felner & Adan, 1988; Kratzert & Kratzert, 1991; Felner, Ginter, & Primavera, 1982), to extend intra- and extracurricular activities (e.g., Crittenden, Kaplan & Heim, 1984; Rembert,
Carvert & Watson, 1986) and to prompt new teachers' attitudes toward potential dropouts (e.g., Weinstein, Soule, Collins, Cone, Mehlhorn, & Simontacchi, 1991). But in all these attempts these programs of intervention have been seldom focused on students performing well at school.

This situation is understood when considering that the number of these students doing well at school tends to be veiled by the still large number of Hispanic students failing at school. Although statistics show an increase in school attainment, number of years completed and high school graduates (Lan Rong and Grant, 1992), the percentage of Hispanic students dropping out of school still remains very high (See tables 3 through 6 in Appendix). In addition, research on students at risk has showed that dropping out of school is a long term process which begins in early years. Thus, a program that attempts to prevent a downward tendency in school achievement has to start working during the first years of school and particularly with those students who show weak academic behavior. Consequently, when targeting students to participate in programs of intervention, adolescent students who do well at school are omitted.

Despite these trends, there is available research on high- and average-achieving students that has focused on the reasons and motivations that have led some students to stay in school even in the face of a threatening environment, and, sometimes, conflicts with school. Thus, Delgado-Gaitan (1988) found that ability to conform to school's regulation was the determining factor for not leaving school. Reyes & Jason (1993) found that overall satisfaction with school and resistance to gang pressure significantly differentiates students who performed well in school from those who did not.
Furthermore, Reyes (1993) found that overall satisfaction with school is based on whether the students value education and see it as a means for a better future. This satisfaction with school was the only significant difference depicted in comparing between graduates and non-graduates. These findings are critical since they identify characteristics other than demographics in the causal examination of dropping out of school. It remains, however, for a model to be developed to enable a better understanding of the way in which environment and personal factors interact to bring about a positive perception of the school environment.

The present research undertakes the task of developing a model of perception of the school and investigating its variability over the adolescent years. The main construct for the model is perception of school. If this appears to be a major contributor to staying in school and preventing dropping out of school even under changing circumstances experienced by the individual, some questions have to be addressed: What is this perception? How does it come to be formed in the student? What are the factors that have to be strengthened to achieve such a positive perception? Is it just a matter of academic achievement? How does the environment inside and outside the school influence this perception? How is this perception of the school related to a more general perception of society, the institutions and their own minority group? How permanent is this perception of the school? What are the changes in adolescence which may lead to break down their satisfaction with school? The results of this inquiry should yield a framework for intervention and dropout prevention for Hispanic students performing well at school.
To propose a model of perception of school oriented to high- or average-achievers must deal with two fundamental issues. The first one is concerned with determining the main variable in the model. The findings of Delgado-Gaitan (1988), Reyes & Jason (1993), and Reyes (1993), have previously suggested an overall satisfaction with school that is related not only to conformity with school rules (Delgado-Gaitan, 1988), but also to an affective identification with the school that leads students to acknowledge its contribution for their present and future achievement. This satisfaction also includes a positive perception of the school as a system with its visible components: teachers, principal, administrators, and the classroom dynamic and goals (Ames, 1992; Reyes & Jason, 1993; Wentzel, 1989). Finally, satisfaction with school entails a positive vision of the school setting and feeling it as comfortable and safe (Delgado-Gaitan, 1988; Eccles, Midgley, Wigfield, Buchanan, Reuman, Flanagan & McIver, 1993; Eccles, Lord, & Midgley, 1991; Felner & Adan, 1988; Hamilton, 1984; Reyes & Jason, 1993). It is because satisfaction with school comprises such multiple perception that the present study will be centered on this latter variable, that is, perception of school.

However, the underlying conceptualization of perception employed departs from the usual definition of "awareness of the world through the activity of senses" (Harré & Lamb, 1983). Perception, as used in this model-building study, rather refers to the interactive relation of the individual with an environment which is constituted by things, activities and other people. This relationship, in turn, is connected with foreseeing future academic and personal outcomes. This is the concept I will use in this study, and the one which will allow me to think of a program of intervention.
A second aspect that needs clarification is the focus on adolescents performing well in school. The reasons that account for this particular focus will constitute part of the first chapter. To preview the rationale for this focus, available research shows that (1) Students from minority groups who do not currently show poor academic behavior are not free of risk emanating from social living conditions (Eccles et al, 1993; Felner & Adan, 1988; Kyle, 1984; Reyes & Jason, 1993; Tidwell, 1988) and (2) The mentioned risk is particularly aggravated during periods of transition. The cumulative changes during adolescence make individuals vulnerable to disturbance affecting practically any dimension of their lives (Eccles et al. 1993; Felner & Adan, 1988).

Connecting Perception and Behavior: Gibson and Bandura

In order to connect perception of school, staying in school, and establishment of educational goals for the future, two different approaches provide necessary insights. One is the theory of affordances as it is presented by J. Gibson (1979) and E. Gibson (1982, 1983, 1987, 1991a, 1991b), and the other is the model for self-efficacy that Bandura (1977, 1986, 1989) proposed in the context of social learning theory. Both approaches will constitute the theoretical underpinnings for model building in this thesis.

The Gibsons' approach undertook the functionalist view of perception. J.J. Gibson (1979) extensively examined the concept of perception, and E. Gibson (1982, 1983, 1987, 1991a, 1991b) gave it a developmental contour. Arguing against the associationist approach that posited that humans perceive pieces of reality that our minds put together, the Gibsons affirmed that what we perceive are objects, events and places as unitary
entities. We perceive these entities as opportunities for action that the environment offers to the individual. These opportunities for action were called affordances by J.J. Gibson (1979).

Thus, if perception of school has any meaning for the adolescent student, it is because he or she perceives the affordance of school; or in other words, the adolescent perceives that the school provides opportunities for action. What is also important is that affordances exist for the individual (Gibson, 1982) in such a way that an object may afford something to one individual but may not do the same for another. In this sense, the perception of school and what school can afford will depend on the perceiver, his or her particular characteristics, and the ways he or she interacts with the environment.

Bandura's (1977, 1986, 1989) social learning theory linked individual, behavior and outcome. Although coming originally from the behavioristic approach, Bandura departed from this perspective by dealing with the way "children and adults operate cognitively on their social experiences and how these cognitive operations then come to influence behavior and development" (Grusec, 1992). In particular, the study of self-efficacy attempted to examine how much individuals expect from themselves, given appropriate skills and adequate incentives, and how this expectation leads individuals to assume a particular behavior. Essential for the proposed model is the idea that the "conviction that one can successfully execute the behavior required to produce the outcomes" implies perceiving the relationship between the behavior and the outcome (Bandura, 1977). Without the belief that a particular behavior will produce a particular outcome the motivation to initiate any kind of behavior would not exist or would be easily
weakened by any stressful situation that the individual might encounter. In the focus of
this thesis, the outcome is social and academic success; the behavior, staying in school.

The proposed model will be constructed upon this behavior-outcome relationship. The perception of this relationship proposed by Bandura will be investigated from the perspective of the Gibsons: The link between a particular performance leading to a particular result will be examined by reference to the concept of affordances defined as opportunities for action. Perception of school, therefore, will be conceptualized as an active integration of environmental affordances. When the student perceives the school, he or she recognizes the affordances related to both the exercise of academic and other qualities, and the construction of a possible future. This perception, in turn, becomes a source of motivation that enables the individual to adopt the behavior of "staying in school." In addition, as the individual progresses in the exercise of his goals and receives positive feedback that reassures him or her in this perception of affordances, the appropriate behavior develops.

The two main components of the model, that is, perceiver and perceived object, are both dynamic and interacting elements. One, the perceiver, is a developing individual with changing possibilities and demands: the adolescent. The other, what is perceived, is a dynamic and multicomponent environment in interaction with other environments and with the individual: the school. Perception of school changes according to the changes of these elements and the interaction between perceiver and the perceived environment. Perception is an activity that takes place in this relationship of individual-environment.
By defining perception of school in this way, "actuality" is brought to the phenomenon and with it the complexity of grasping all the dynamics that are involved.

**Goals of the Present Study**

The findings of Delgado-Gaitan (1988) and Reyes & Jason (1993) indicated that satisfaction of school or a positive perception of school could account for the differences between staying in or dropping out of the school.

The goal of the present study is twofold: 1) to examine the variables that may contribute to forming a positive perception of school that, in turn, may ensure satisfaction and the motivation to continue to study and pursue further educational goals; and 2) to design a model for perception of school that can be used for educational intervention in high- and average-achieving Hispanic students. In addition, because the proposed model will be oriented to Hispanic subjects, the particular characteristics of this ethnic group will be considered for the design. Gender variations related to the model will also be addressed.
CHAPTER II

A MODEL FOR HISPANIC STUDENTS DOING WELL IN SCHOOL.

The At-risk Situation of Hispanic Students Doing Well in School

Most researchers examining minority groups have tended to use a "deficit model" (Elliot & Feldman, 1993; Spencer & Dornbusch, 1993). In addition, programs of intervention, driven by the steady level of dropping out of school, tend to limit the scope of intervention to those students who explicitly show poor school achievement, particularly at early years. These targeted interventions overlook the "false negatives", those children at risk who are not so identified (Coie, Watt, West, Hawkins, Asarnow, Markman, Ramey, Shure & Long, 1993).

However, students currently not showing poor academic behavior are not completely free of risk. Two reasons come to support this statement. First, studies consistently show that most of the crises that end in dropping out of school occur in adolescent years (Felner, Ginter, & Primavera, 1982; Felner & Adan, 1988; Eccles et al., 1993). The cumulative changes that result principally from moving from grade school to junior high school or high school cause damage in the highly vulnerable students. In the Appendix, table 4 shows that most dropouts leave school at 10 or 11 grade; table 5 shows that almost 30 percent of the Hispanic youth between 15 and 24 years of age did complete
one to three years of high school. Research has confirmed that adolescents' academic performance may deteriorate throughout school years impeding their completion of high school, in particular when factors other than personal capabilities are modified drastically (Eccles, Midgley, Wigfield, Buchanan, Reuman, & Yee, 1993; Felner & Adan, 1988). Specifically, the cumulative changes in adolescence make individuals particularly vulnerable to any disturbance affecting practically any dimension of their lives (Felner & Adan, 1988). That is why it is necessary to add the versatility and capacity of adaptation, which is verifiable only in the face of new environments and circumstances, to the early cognitive and personality characteristics that permit us to foresee future performance according to some models of academic behavior (Bronfenbrenner, 1977; Hamilton, 1984). Some demands of transitional periods may be overwhelming for students who did not show previous conflictual characteristics.

The second reason for considering Hispanic students doing well at school being at risk comes from the circumstances in which the previous scenario takes place. Though not all adolescents from minority groups can be situated under the same "social address" (Bronfenbrenner, 1988), most of them live in conditions that could be considered "at risk". These are not sociological determinants in the way that a model of social deficiency might depict, but they are conditions that, under particularly stressful situations, may lead students to a downward spiral that, in turn, may end in dropping out school (Eccles et al., 1993).

For example, among families with low income, defined as the bottom 20 percent of all family incomes, the rate of dropping out was 26.5 percent in 1991 (Speer, 1993).
This was more than twice the dropout rate in middle income families which was 11.8 percent. Many Hispanic families are single parent families in which the father is usually absent. In 1990, 28 percent of Hispanic families were in this condition (Garword, 1992). Given the scarcity or low quality of jobs for unskilled women in general, female-headed families frequently are those which experience economic problems. In recent immigrants, the economic situation acquires dramatic levels when it is associated with an alien situation which further impedes access to regular jobs and may subject the individuals to the exploitation by employers.

Among the consequences of the poverty that dominates the lives of many Hispanics are the poor quality of housing, an endangered health status, and an increasing level of crime in Hispanic neighborhoods (Moore & Pachon, 1985). Crime, in particular, is a common feature in some Hispanic neighborhoods. Recent sociological attempts to explain these high rates of delinquent activity tend to emphasize a minority context of poverty and hopelessness that encourages a subculture of violence (Moore and Pachon, 1985). The activity of gangs in school has led some researchers to consider the fear of gangs as one of the main reasons for leaving the schools (e.g., Kyle, 1984).

The economic condition of many Hispanic families and their consequences at the levels mentioned are conditions to which all adolescents are exposed, regardless of their academic skills, and the impact of these conditions is well beyond their control (Kazdin, 1993). Under these circumstances, academic performance is severely jeopardized, and students performing well at school cannot be considered free of this risk.
In this scenario of accumulative changes and threatening socioeconomic conditions, for a student to do well at school demands an enormous effort. Personal investment and the success coming from it must depend on many variables among which a supportive family and social support external to the family have been found significant (Carranza, 1991; Vugia, 1992). There is, however, an additional risk factor that, although associated with the two above described above, may become a source of instability and failure at school: minority status.

A difference in values in values (Kaplan, 1991; Buenning & Tollefson, 1987), and teachers' negative attitudes regarding students from minority groups (Delgado-Gaitan, 1986, 1988; Bahr, Fuchs, Stecker, & Fuchs, 1991; Natriello & Dornbusch, 1984; So, 1987) are two aspects that have been repeatedly studied. These not only reflect additional stresses but also appear unidentified in the research. In fact, most researchers have failed in pointing out the particular contribution of the minority status to failure in school.

Ogbu (1978, 1988, 1991) and others after him (e.g., Enwistle, 1993; Taylor, Casten, Flickinger, Roberts & Fulmore, 1994) have addressed this point in several studies on school achievement in African American students. Ogbu related these students' poor academic performance with an attitude resulting from the perception of their racial and social discrimination in the mainstream White society. Particularly detrimental is their perception of a discriminatory "job ceiling" affecting their future employment opportunities. This perception leads students to disillusionment about the real value of schooling, to a negative sense of self-efficacy in academic realms, and "to a social identity
that opposes the identity of White Americans, including behavior and values associated with academic achievement" (Taylor et al., 1994, p.24).

Although, no similar studies are available in Hispanic minorities, it is possible to extrapolate those findings. Even in the case of a student performing well during the first years of school, with the arrival of adolescence and the accompanying transitions, the reasons for staying at school are questioned. Since the reward for attending school is a long-term payoff, this future outcome may be blurred by the reality of discrimination and neglect also experienced by many Hispanics groups (Moore and Pachon, 1985; Ogbu 1978, 1988, 1991, San Miguel, 1993).

These three aspects of the students from minority groups - (1) socioeconomic risk conditions, (2) accumulative changes occurring in transition periods such as when moving from one school to another, and (3) minority status in relation to the mainstream society - may be independent of the individual's academic performance, and call for a model that can describe and clarify the risks experienced by the minority student who was identified as doing well in school during his early years, and suggests some form of intervention. These students are also at risk and any way of preventing a breakdown in their school performance and help them realize their academic potential will be beneficial for them and other members of the minority group (Ogbu, 1991).

As it was explained in the introduction, by limiting our targeted subjects to high- or average-achievers, the model will control for any variability that may spring out from academic achievement. The correlation between grades and self-concept have been repeatedly verified in multiple studies, and solely, school grades are the better indicator
of academic achievement when other factors are controlled. In turn, academic achievement has been related extensively with proclivity for dropping out of school in combination with other factors such as parental expectations or parental aspirations. Thus, from these results it would not be surprising that a student performing poorly at school has a negative perception of school and is at risk for school failure. The explanation of the direction of the causal relationship between grades and perception of school, and between the latter and school failure will not be addressed here. In the present case, that of students performing well at school, a history of good academic achievement is an indicator of an appropriate sense of self-efficacy in the academic domain. Therefore, other variables must account for the risk of such a student for dropping out of school. As I will address later, there are other school-related areas in which the adolescent has to face the challenge for adaptation and performance. In this sense, the findings of Delgado-Gaitan (1988), Reyes & Jason (1993) and Reyes (1993) provide the insight that will constitute the basis of the model to be proposed.

Using an ethnographic approach with 12 Chicano adolescents, Delgado-Gaitan (1988) interviewed their parents, teachers, peers, as well as school board members and community leaders, to get information about how they perceived schooling, attrition and academic learning. He found that the factors that influence staying in school were a multidimensional support system, a positive parent's attitude toward their children, and the ability of students to overcome conflicts at school. All these factors helped the student's conformity with the school regulations, which affected perception of school.
Reyes & Jason (1993) also examined the factors associated with academic success for Hispanic high school students. In a post facto study with 48 students, 24 classified as high-risk and 24 as low-risk of dropping out the school, the researchers analyzed the significant differences in conformity with school rules, parental support, parental educational background, gang pressure and self-esteem. Reyes & Jason found that overall satisfaction with the school, resistance to gang pressure, and not carrying any kind the weapon to the school were the only significant differences between low-risk and high-risk students. Self-esteem was not significantly related to risk status. Other factors, traditionally attributed as determinants in school failure, such as family background, were also non-significant. In their conclusion, the researchers hypothesized that low-risk students may likely receive more positive attention from teachers than high-risk students and this, in turn, facilitates the students' interest in school and their optimism about academic future (Reyes & Jason 1993, 68).

A three-year follow up of the low and high-risk students identified in this work, led Reyes (1993) to reconsider her former conclusions. In this study, the only significant difference between graduates and non-graduates was overall satisfaction with school. Failing students, said Reyes, "seem to lack hopefulness." Again, family demographic factors and family support variables did not distinguish the groups.

The reason for not valuing education nor seeing it as a vehicle for a better future, as well as the correlation between these feelings and other social and personal variables, were not analyzed in Reyes' work. She suggested exploring how this appreciation for education developed in these students who "survive" hostile environments. It is
worthwhile to note that, as other researchers have shown, the school also formed part of the students' "hostile environment"; however, contrary to expectations, school was appreciated by the low-risk students.

A Model for Perception of School

The variables satisfaction with school, conformity with school rules, feeling comfortable and safe in the school setting, and valuing schooling as a vehicle for a better future are all important. These variables are all included in the term *perception of school*. Figure 1 represents the proposed model which brings together the remarks from the previous paragraphs. Based on Bandura's model of self-efficacy (1977), the figure relates individual, behavior, and outcome with efficacy and outcome expectations. Although in his analysis he distinguished efficacy expectations from outcome expectations (p.193), in this figure both are related through perception of school. The hypothesized reason to establish this link is the following: the "conviction that one can successfully execute the behavior required to produce the outcomes", that is, efficacy expectations, entails to perceive the relationship between the behavior and the outcome, that is, outcome expectations. The outcome in this figure is future social and academic success; the behavior, staying in school. Bandura (1977) pointed out that

Outcome and efficacy expectations are differentiated, because individuals can believe that a particular course of action will produce certain outcomes, but if they entertain serious doubts about whether they can perform the necessary activities such information does not influence their behavior. (p.193)
Figure 1. Bandura's model for self-efficacy and proposed model for perception of school. Bandura's model appears drawn in solid lines and the proposed model appears drawn in broken lines.
However, the relation can be perceived differently in the experience of adolescents belonging to minority groups, and this is a major point in this thesis. In the case of high- and average-achievers, they may be certain about their capabilities to carry out academic activities but they may also convey serious doubts about the possibilities that such behavior leads them to a positive outcome. In other words, the causal relationship between outcome expectations and outcome (see figure 1), may not appear trustworthy when (1) there is a significant number of dropouts, or (2) those who decided to stay in school do not achieve their goals, not because of their lack of effort, but because society does not seem to gratify minority groups (Delgado-Gaitan 1986; Reyes & Jason 1991). The experience of failure and frustration of those who adopted the behavior in question, can affect not only the efficacy expectations but also the "person's estimate that a given behavior will lead to certain outcomes" (Bandura, 1977, p.193).

The perception that a particular individual has will not be just the result of his or her particular way of facing the immediate environment but also the interacting effect of others' perception and experiences. That is why in figure 1, the individual, here the Hispanic student, is represented by a set of concentric circles. Each of these circles represents an environment other than school, in which the individual interacts, such as family or the peer group in the neighborhood. These circles also represent different sources of influence on the student's perception of the school. The influence of those other environments will be considered as it is manifested in the individual's perceiving and acting in the school. The rounded rectangle "other's perception of school" represents such influence.
A poor relationship, teacher-student or peer-peer, during adolescent transition can be decisive for perceiving the environment as discouraging. Giving the vulnerability of the student at this stage, this feeling may be threatening enough to lead students to fail in school, despite how well the student was doing (Felner & Adan 1988). That is why a rectangle named "significant relationships" has been included in the model.

"Goals" and "proprio-perception" (Gibson, 1979) have also been included as variables in the model. The action for which the individual perceives the opportunities depends on the "goals" an individual sets up, whether they are in close relation to school or not. That action and its perceived effects influence, in turn, the setting of new goals. On the other hand, because perception, as an activity, is given in the interaction individual-environment, is also a source of knowledge of the individual's situation in that environment (and, consequently, of its performance in that environment). This is what is called "proprio-perception", the perception of the self acting in the environment. Both, goal-setting and proprio-perception influence perception of school, whether encouraging the exploratory activity or diverging the individual's attention toward other aspects of the environment in which he or she perceives him or herself more attuned. The relevance of such influence, however, will vary according to the different developmental stages of the individual.

The four variables mentioned - goal setting, proprio-perception, other's perception of the school, and significant relationships - will show different characteristics according to the way a cultural community understands them and the changes that such community experiences. These characteristics will affect student's perception of the school, which,
in turn, will affect related variables such as school attainment or academic achievement. Studies on relationships between cultural adaptation and the latter variables mentioned seems to offer some evidence. Lan Rong & Grant (1992), for example, found that school attainment improved in each successive generation of Hispanics "perhaps resulting from greater acculturation of students to schools and/or schools' increased adaptation to minorities" (p.633). In a similar trend, Buenning & Tollefson (1987) had asserted that high achieving Mexican-American students were less traditional in their attitudes toward school and more field independent than were low achieving students in their sample. The latter's attitudes conformed with their parents' who were Mexican immigrants. These findings, however, may relate to social status or upward mobility (Han, 1987) that may influence, in turn, the rate of acculturation.

Thus, perception of school, which makes the school meaningful for the student, is an activity carried out by a developing, cultural rooted, perceiver as he or she interacts with a complex environment. The way the different components of the perceptual activity operate will be explained in the next chapter.
CHAPTER III
A MODEL FOR PERCEPTION OF SCHOOL

The Core of the Model: Perception of Affordances

Perception constitutes the basis for the model described in the previous chapter. Figure 1 depicts the structural relationship based on Bandura's model of self-efficacy. Person, behavior and outcome are linked by a double set of expectations: those referring the individual himself -- what Bandura called self-efficacy expectations -- and those referring the outcome -- the outcome expectations in the figure. I can propose the hypothesis of this study more formally: these two sets of expectations are, in turn, linked; and perception is the underlying connection between them. Above all, perception sustains the outcome of expectations, in the way explained in the previous chapter: by making sense of the behavior to adopt. If the consequences of the behavior were not perceived nor predicted, why would an individual adopt it? Or if the behavior had already been adopted, why should the individual maintain it when such behavior implies facing diverse constraints and adverse circumstances?

Bandura (1977, 1989) emphasized the sense of self-efficacy, the perception of one's own capabilities to deal with the behavior in question. Here, I am proposing that this self-perception is not enough. The perception of the possibilities of action, of the outcome of
the expectations is also necessary, and this perception cannot be taken for granted. This is included in what E. Gibson (1982, 1983, 1987) suggested as perception of the affordances of the environment.

The work of J.J. Gibson was all centered in developing a theory that could account for the perception of the richness of the environment beyond the traditional resource of an associationist approach. J.J. Gibson proposed that we perceive the richness of the environment directly. The stimulation impinging on us is rich and provides all the information necessary for our perception. More than senses, Gibson said, human beings have perceptual systems that search for complex information. They learn to adapt and modify their functioning. They refine and improve their skill at information pickup (Reed, 1988). These perceptual systems, working coordinately from the start, give the sense of unity to perception, "the unified quality of everything that we perceive" (E. Gibson, 1983, p.19). That is why, the environment of Gibson's approach does not comprise lines, curves and shadows but objects, places and events. Because "our perception is ecologically appropriated for human animals," we perceive "units, themselves structured and containing subordinate structures." (E. Gibson, 1983, p.20) These units have a function for the individual.

Perception, therefore, rather than a passive process of sensation is an exploratory activity carried out by the perceiver. Eventually it is in this interaction that the multiple aspects of reality are disclosed and become meaningful for individuals. These meaningful aspects of the environment are the affordances. Perception is "the awareness of the
affordances of the environment" (Reed, 1988, p.294), and affordances are what the
evironment offers the animal for its existence, for its action (Miller, 1993).

The notion of affordances is a category that goes beyond the traditional division
between objective and subjective. The affordances are objective because they are
properties of the environment and of the aspects of the environment. They exist whether
they are perceived or not, "are real and external, not mere possibilities" (Reed, 1988,
p.294). Nevertheless, they are informed according to the individuals present in the
environment. For example, a water surface cannot afford "support" and "locomotion" to
a mammal, but it does to a water bug which can walk and be standing on a water surface.
Thus, the affordances are also subjective, or better said, functionally subjective. "They
are related to the observer as well as to the environment" (Reed, 1988, p.293). An object,
a place or an event may afford different things to different people or may not afford
anything at all.

This "functionality" of affordances is the cue to understanding perception. Our
"most direct focus of perception is the functional nature of that which is perceived... the
functional potentialities, the potential usefulness" (Bickhard & Richie, 1983, p.16). We
are continuously perceiving "potentialities for further actions and interactions." (p.16)
Affordances are, as properties of the objects, places and events, the primary perceptibles.
However, these affordances are not pressure to act in a particular way: they are
invitations. An affordance, although perceived does not have to be used necessarily: "an
affordance is an offering, not a requirement or a cause" (Reed, 1988, p.293). That is why
affordances are opportunities for action (Miller, 1993).
Since affordances are invitations to act the question of why a particular individual will take some affordances and will not take others needs to be addressed. E. Gibson (1983) said that there is an innate tendency and a correlated capacity in human beings for seeking order, unity and understanding in their environment. In more ecological terms, the individual attempts from the beginning to fit the environment, to find a "niche," and make the surrounding an "ambience" (Lombardo, 1987) supporting -- in the case of humans -- intelligent behavior.

In a structured society, the cultural community sets the possible goals for the individuals and encourages the use of some affordances whereas it discourages the use of others (Reed, 1993). In the case of social animals there are "specializations (age, gender, and social status-related) in behavior" which "produce constraints on what affordances can be utilized, by whom and when" (Reed, 1993, p.52). These constrains constitute the social norms, the "culturally biased" use of the affordances. Nevertheless, the constraints are "constraints on action, not on affordances" (p.52).

At more individual levels, the particular information a subjects attends to "depends on what the immediate environment provides and on what [the subject's] goals are in that situation" (Miller, 1993, p.352). There is a relation, "ideally, a match", between the individual's goals and the information extracted from the environment (p.353). I can add here that there is a bi-directional dynamic between perception of affordances and goal setting when considering the immediate environment. The soccer player who wants to make a score for his team (a goal), will attend to information from himself and the environment (the affordances) concerning his attempts to kick the ball efficiently (an
intermediate goal, let us say). But as the information is picked up, a change in the intermediate goals may occur (to pass the ball back for example) and other affordances have to be perceived.

Thus, the meaning-providing relationship of the individual with the environment which is perception in the proposed model, can be re-defined here as perception of the affordances of the environment. Perception appears as the source of the most basic information for the organism. It is this information, that of the affordances, the opportunities to act, which makes the environment meaningful.

The Dynamic of the Affordances in School

Four aspects relevant to the proposed model can be derived from the theoretical underpinnings mentioned. The first one is that of the public affordances. Perception of particular affordances depends on the "ecological position" of the particular individual, that is, the characteristics of the individual living in the environment and the individual's exploring activity (E.Gibson, 1982). In this sense, affordances are for the individual. However, individuals coincide in time at the same "ecological" position that brings up the affordance to be perceived, and then the affordance becomes public and a common awareness of the affordances in the shared environment emerges (J.J. Gibson, 1979, Lombardo, 1987, Reed, 1993). It is this public aspect that makes it possible to represent, talk about, and indicate the affordances. The culturally biased use of the affordances can take place only because a common perception of the affordances of the environment is possible.
This common awareness does not mean, however, that all individuals perceive all
the affordances nor all individuals who are aware of the affordances use all of them. An
object may afford an action for someone and not for another, and yet the latter may
understand what that object affords for the former. I can understand the affordance of
something, although it may not be an affordance for me (like a space shuttle that I do not
how to drive). Nevertheless, those who cannot perceive some affordances of the
environment can benefit from others' perception. By using indicative language, those who,
due to their greater experience, perceive some affordances in the environment can direct
the perception of those who do not. This is what J.J. Gibson called *indirect perception*,
the perception of the affordances by using other's indications. This is the second aspect
relevant for the proposed model.

Because perception is interaction with the environment, indirect perception of
affordances is better understood as "an indirect response to things based on stimulus
sources produced by another individual" (Gibson, 1966, p.91. Cited in Reed, 1988,
p.306). These stimulus sources are the symbols, graphics and meanings contained in the
indicative language, built in the cultural community, and used by members of society to
teach to less expert members to direct attention to some aspects of the environment that
are relevant for action (Reed, 1988). If in addition, the indication of those affordances is
given according to the social norms that regulate the use of affordances, the individual can
regulate cognition and action appropriately to achieve the goals that he or she has in that
society (Reed, 1993).
Thus, affordances can be perceived directly and indirectly. They can be perceived directly when information specifying them is available and accessible to the perceiver, and indirectly "when someone selects and displays that information in one or another form of representation . . . " (Reed, 1988, p.307), in order to make another aware of the affordances. These representations help the individual in the social environment to better act upon what they represent even when one has not directly experienced what those words and symbols represent. However, representations and set of symbols have as a primary function to indicate to the perceiver where the affordances are.

The problem occurs when indirect perception does not lead to the direct perception of the affordances. The social representations, providing "indirect" perception, may guide the attention properly, but they can also mislead and confuse. The specific aspects of ecological information which is supposed to have been codified in culturally developed ways to be transmitted cannot be picked up, therefore, and the "psychologically salient aspects of the social environment" (Meacham, 1993, p.257), which are the affordances, are lost.

This is the third aspect I want to discuss: the loss of affordances. When the situation above described occurs, perception is lacking its meaning, and therefore it is not perception in the terms explained here. A perception like this, instead of "keeping an [human] animal in touch with its environment," (E. Gibson, 1982) alienates the former from its ecological niche or leaves it in a situation that cannot be ecologically compensatory because it does not invite to action or invites to a different kind of action from that leading to the sought goal.
Meacham (1993), referred to this when considering the social problems that society confronted in the last 50 years:

What can we say about the ... academics who lost their jobs during the McCarthy era, the people in Tiananmen Square whose expectations of freedom were crushed, and the impact of increasing disadvantaged on the development of children in the United States? The common strand among these is the loss of affordances, the loss of psychologically salient aspects of the social environment. (p.257)

This may be the situation in a community where possibilities of access to good-academic-level schools is restrained or where the probability of getting a job is not as much related to education as it is to social class or ethnicity. In these cases, does the school afford education and intellectual achievement? Can we talk about a school affording education to an educable human in a community without possibilities? If reality is a society where youth from minority groups are restrained from the possibilities of future realization, these questions may be addressing true facts. In such a scenario, the educational "context" may be somewhat distorted. The pattern go to school -- study hard -- complete school -- be successful may not appear truthful most of the time, unfortunately. And given this "context," the entity "school" may not offer the affordances that it does for others. In this case:

the realization that a high school diploma does not provide much currency in the market place, that the job market is bleak or that it places little value on their current schooling lowers students' morale and makes them highly skeptical about the usefulness of schooling. (Enwistle, 1993, p.203)

Thus, the student does not perceive the affordances that the school as a whole offers. As noted by Hamilton (1984):
Realizing that neither outstanding performance nor extended years of schooling can overcome the barriers of discrimination, they choose to avoid the discomfort of struggling for academic success on the grounds that they will probably not be able to get a good job regardless of how well they do. (p.240)

The affordances of school, those established by the society for which school is an instrument of socialization, cannot be perceived by the individual in this situation. The perception of school is lost. This is what I call a negative perception of school.

The fourth aspect derived from the theoretical framework is that of involvement in the environment to perceive the affordances. To say that a negative perception of school is the result of a misleading indicative language that poorly shows where the affordances are names only one part of the picture. Indirect perception does not exempt an individual from an exploratory activity. From a somewhat different approach, Meacham (1993) said that "the societal and cultural environment is not 'out there' along with the physical environment but is instead 'inside'" (p. 262) of the individual, within his mind. The social environment for Meacham is "a fact constructed in the mind of the individual, and, as such, it can be perceived directly because, 'the individual has no difficulty perceiving directly that which he or she has previously constructed'" (p.262).

When talking about "construction of the environment," Meacham was referring to "internalizing [italics added] of the environment into the mind" (p.263), for "the knowledge that is mind is co-extensive with the relationships that constitute our interpersonal and societal environments" (p.263). Meacham located society within the mind because he did locate mind within society. For him, the environment is not separable
from the processes of cognition: "There is a interpenetration [italics added] of both cognitive development and how the societal environment is conceived" (p.263).

From this perspective, then, three points become clear. First, perception as a process of cognition is not separable from the environment. The perception of school is conceived in the process of being at school, in the process of interaction with the structures, mechanisms and individuals that are components of that experience called school. Second, this perception is a construction, understood in Meacham's terms. It is construction not because it is something "produced" in the mind as a result of putting together representations or retrieving aspects of reality stored in memory. It is construction because it is "co-extensive" with the active participation of the individual in the school, with his or her relationships which make the environment called "school." And third, since there is a construction of the individual, school can be perceived directly.

The adolescent student and the school are, therefore, in relation. School is in the mind of the adolescent perceiver only if his mind is on school. School is constructed in the mind of the individual and, thus, is perceived directly. The loss of affordances, therefore also occurs when school does not form part of the individual, when school is not in the student's mind, when school does not form part of his experience.

The four discussed points: common affordances, indirect perception, loss of affordances, and involvement to perceive the affordances, can be connected with the model by bringing up the concept of how school is perceived. The word "school" as used here does not refer to the physical building, nor its elements independently considered. It is more than its personnel, its teachers and its students, the academic curricula or the method
of teaching considered separately. It is not even the sociological concept of school. "School" is the interaction of all these variables. Interaction is the cue word here, because in it, perception of the affordances, the meaningful aspects of the environment, occurs.

The common affordances perceived for the students are those of the school but also of society. The indirect perception of them, comes from the curricula, teachers, and peers in school, but also from others who, while they may not be present in the immediate setting, have to do with school and influence the perception of it. The loss of affordances does not refer to the loss of the "psychological salient aspects" of the school only, but of the society that promotes the particular kind of school. The involvement in perceiving the affordances directly, concerns primarily the immediate setting, but this is only a preparation for a broader involvement in the society, and it supposes to some extent an involvement with other settings apart from school in which the individual participates.

School is the main mechanism for shaping the components of society (Bruner, 1986). The particular setting in which particular people work and are instructed under a particular system is all aimed at integrating the individual in society. Therefore, the affordances that school offers to the individual and the opportunities for action reflect the opportunities for action that society offers to the individual. That is why schooling is a long term payoff activity.

Model of Perception of School: A Dynamic Model

Figure 2 shows the points discussed in this chapter. The graphic depicts the dynamic underlying the model in figure 1. The perception of school carried out by the
Figure 2. Dynamic of perception of school. The outermost oval represents the society in which the school is embedded ( Macrosystem). The second largest oval represents the school. The other ovals represent the different instances with which the adolescent individual interacts. These are the sources of indirect perception of school. This indirect perception comes from out of school and in-school sources. This indirect perception and the individual's goals lead the adolescent to perceive the affordances of the environment. In this perception the individual knows how he or she is dealing with the surroundings (Proprio-perception) and how he or she interacts with others (perception of significant relationships). This perception, in turn, influences the setting of new goals. This perception of affordances leads to action which is projected beyond the school toward society.
perceiver is the perception of the student acting on the school-environment and the perception of the school-environment as perception of the affordances that this offers to the environment. Both perceptions actually are included in perception of the school. It is this perception which connects the two links in the person-behavior and behavior-outcome elements of the figure 1. The perception of the self-acting-in-the-environment is related to the self-efficacy expectations. The perception of the affordances of the school-environment is related to the outcome expectations.

In figure 2 the perception of school is the perception of the affordances of the school, and this is direct and unitary. Nevertheless, because this perception is a perception of social realities in which the role of symbols and language is essential, the function of indirect perception appears more clearly. The ovals represent other settings that influence the individual whether the individual interacts in those settings or not. The larger inner oval represents the school, and the outermost, largest oval is the society that involves all the settings. Indirect perceptions, shown here by arrows pointing toward the individual, always convey direct perception. The affordances of the school, on the other hand, are opportunities for action that, although carried out initially in the school, are destined for society.

The perceiver in this model is an adolescent Hispanic student doing well at school. But the other relationships, especially those coming from the indirect perception provided by significant others in different settings, also become relevant during the adolescent years. Since the perception of salient characteristics of the environment is motivated by the individual's goals the perception of particular affordances may also vary. The balance
among the multiple perceptions coming from multiple interactions is given by the activity of the individual but also by his developmental needs, the degree of perceptual differentiation, and the way the individual directs his attention according to the indicative information that others in school and outside the school provide. These needs, the exploratory activity, the degree of perceptual differentiation and the focus of attention all change in adolescence. It remains, therefore, to examine the developmental aspects of perception of school. This will constitute the following chapter.
CHAPTER IV

THE ADOLESCENT PERCEIVER, A DEVELOPING INDIVIDUAL

In trying to define what a developmental psychologist has to focus on, E. Gibson said recently:

The task for the developmental psychologist is to show how the young animal learns about affordances, how it detects the appropriate supports and resources offered it as it lives in the world and matures, and how it knows what can be controlled and used by virtue of its own propensities and potential for action. Perception of affordances is vital for guiding action, making perceptual learning vital to survival. (E. Gibson, 1991, p. 219)

To "learn about affordances" is the core of the developmental process. It is by knowing about what the environment offers and what can be done with those affordances that an individual can remain in "relation of mutuality with its environment" (E. Gibson, 1982, p.79), or in our case, how the student remains in relation with his or her school.

The dynamic presented in figure 2 did not show the variations that come from the fact that the perceiver is a developing individual. The way of perceiving the self and the significant others, the value and attention paid to other's perception, and the direction and strength that goals may provide for individual's activity do not remain steady during one's life-span. Physical, psychological, and cognitive changes that take place during adolescent years do have an effect upon the capacity an individual has for perceiving the affordances of the environment and guiding his action.
The Cultural Developmental Task of the Adolescent: Search for an Identity

Researchers on adolescent development have come to see the period of adolescence, as others in the life-span perspective, as marked by cultural-developmental tasks (Klaczyński, 1990). This kind of task is a task which arises at or about a certain point of the life of the individual, successful achievement of which leads to his happiness and success at later tasks, while failure leads to unhappiness in the individual, disapproval by society, and difficulty with later tasks. (Havighurst, 1948, 1972. Cited in Klaczyński, 1990, p.811)

The cultural-developmental task is co-determined by the individual and the culture, and the effects of these tasks are mediated by the individual's activities. Among the multiple actions that any individual may undertake to accomplish this task there are some leading activities which are the most likely to be performed in the context the individual lives, and those which play the most important role in development.

The major cultural-developmental task in adolescent years has been defined as achieving an identity (Klaczyński, 1990; Erikson, 1985). The physical and sexual maturation, the acquisition of necessary skills to carry out adult roles, the increasing autonomy from parents, the realignment of social ties are all aimed at providing the basis of an identity which will define the adolescent in the present and future time.

Table 1 presents some of the leading activities in which this cultural developmental task is displayed and the relation of these activities with the variables described in figure 2 in the previous chapter. The activities, self-knowledge acquisition, reformulation of significant relationships, and examination of social responsibility, are not all those in
Table 1.--Cultural-developmental Task and the Components of Perceptual Activity

<table>
<thead>
<tr>
<th>Cultural - Developmental task</th>
<th>Subtasks</th>
<th>Leading activities</th>
<th>Perceptual activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search for Identity</td>
<td>1. Accept one's physical appearance</td>
<td>Self-knowledge acquisition</td>
<td>Proprio-perception</td>
</tr>
<tr>
<td></td>
<td>2. Accept a sex role</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Acquire an ideology and value system</td>
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<td></td>
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<tr>
<td></td>
<td>4. Mature relationship with peers</td>
<td>Reformulation and realignment of significant relationships</td>
<td>Others' perception of school</td>
</tr>
<tr>
<td></td>
<td>5. Prepare for marriage and family life</td>
<td></td>
<td>Perception of significant relationships in school</td>
</tr>
<tr>
<td></td>
<td>6. Become emotionally independent from parents</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7. Prepare for economic independence</td>
<td>Examination of social responsibility</td>
<td>School-related goal-setting</td>
</tr>
<tr>
<td></td>
<td>8. Achieve and accept socially responsible behavior.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Based on Klaczynski (1990). The subtasks of the cultural-developmental task were proposed by Havighurst (1948/1972) [Cited in Klaczynski, 1990]
which the accomplishment of the developmental task occurs but are those who are relevant for the model here proposed. These leading activities do not have rigid boundaries and are not exclusive. They overlap at all times and any action\(^1\) taken in one of them necessarily influences those in other leading activities. In the context of the perception of school, the variables I mentioned above are related with these leading activities. Thus, proprio-perception, the first variable, is a contribution to the knowledge of the self acting in the school. Other two variables - the influence of others' perception of school and the perception of significant others in school- are directly related to the activity of reformulation of significant relationships. The last one, the setting of school-related goals, necessarily entails the examination of the social responsibilities and possibilities. In the following discussion I will use the variables indicated in figure 2 in order to maintain continuity with the previous chapters.

**Trends of Development in Perception of School**

In the theoretical framework presented above, to "learn about affordances" then, consisted in *differentiation*:

\(^1\) Activity and action are different concepts in this chapter. Actions refer mostly to the individual's act in relation to the leading activity. Activity, on the other hand, is a very general act, comprising other minor acts, that is energized by "motives" or general goals (Klacznyski, 1990). An act may be more strongly tied to a particular activity but it also influences upon others. Thus, "dating", an action, can be included in "reformulation of significant relationships" but also provides information about the self and it can help to formulate future goals in social areas.
Our perception improves because we come to detect or differentiate more of the aspects, features and nuances of the tremendously complex stimulation that impinges upon us. (Pick Jr., 1992, p.788)

It is an increasing differentiation of the meaningful properties of the environment which accounts for the developmental changes in perception. These changes are, in turn, the result of a more diversified experience. The difference between a child's and an adult's levels of perception is a broader experience, to have been engaged in a longer exploratory activity, in more diversified environments where attention was actively directed and perceptual systems were continuously adjusted (Pick Jr., 1992). The mechanism of change in perception has been defined as exploratory behavior (Gibson, 1987).

The changes in adolescence foster exploratory activity and thereby, increases the capacity for differentiating the affordances of school. Those changes are, in turn, influenced - and energized by - this increasing differentiation. Thus, the "abstraction of distinctive features, invariant relations, and higher structures", the "filtering out of irrelevant information", together with a increased use of the "peripheral mechanism of attention" (Miller, 1993, p.360) have been pointed out as characteristics of adolescents' cognitive stage (Piaget, 1977), but they are also mechanisms of perceptual development (Miller, 1993). A broader and more diversified environment to which adolescents have access, with the consequent input of new ideas and world views, challenges and promotes the adolescent's ability to differentiate "what can be controlled and used by virtue of its own propensities and potential for action" (Gibson, 1991, p. 219). The timing of physical and sexual maturation causes in the adolescent a new self-perception and demands a progressive acceptance of the new differences coming from such a process (Tobin-
Richards, Boxer & Petersen, 1983; Brooks-Gunn & Reiter, 1993). With all these changes, the individual's ability to perceive affordances increases and develops qualitatively.

During development specially, this learning [about the affordances of the environment and about the self] must be frequently updated because a young animal is continually growing in powers and dimensions. (E. Gibson, 1991, p.255).

The way these changes affect the adolescent's perception of school and the four variables to which I have referred -- proprio-perception, perception of significant relationships, goal-setting, and others' perception of school-- will be examined now. Each of these variables will be examined according to three developmental trends (1) optimization of attention, (2) increasing specificity of perception, or increasing discrimination of information, and (3) increasing exploratory activity (Miller, 1993). The way these developmental trends in perception of school vary during adolescent years will guide the discussion.

Some remarks have to be made regarding these developmental trends in perception. First, they have been drawn from the experimental work carried out by E. Gibson (E. Gibson, 1991; Miller, 1993) to explain the process of perceptual learning in children. Hence, Gibson's findings can only be applied partially here for two reasons:(1) the subjects of the proposed model are adolescents, and (2) the focus of perception rather than a physical environment is a social construct.

Second, attention and discrimination of information are to be understood here under the concept of perception used and in reference to the cultural-developmental task of the adolescents. By attention I will refer to the active concentrating of the individual toward
one sort of events in preference to others. By discrimination I will refer to the ability to distinguish the affordances of importance for carrying out the actions comprised in any of the leading-activity areas indicated above.

Third, although attention and ability to discriminate information are cognitive abilities, the development of cognitive functioning will not be addressed here directly. The perception we are talking about is given in the interaction between individual and environment and it is examined in this interaction, rather than in the inner processes underlying the activity. However, I will refer continuously to table 7 in the Appendix that shows the changes occurring during adolescent years in cognitive areas.

Fourth, and finally, since the cultural-developmental task in adolescent years has been defined as achieving an identity (Klaczyński, 1990), the division of adolescent years has been arranged according to this major task. Table 2 shows a division based on Sahler & Kreiper's (1991) description of adolescent's psychological stages. Under the label "concern" is indicated the characteristic of each of the respective stages in adolescence. This "concern" marks the events and processes occurring in each stage, and consequently the four variables I am dealing with.

Perception of School in Early Adolescence.

The early years of adolescence are characterized by physical spurts (Sahler & Kreiper, 1991; Brooks-Gunn & Reiter, 1993). Although there are differences according to both gender and timing of maturing within gender, in general the concern for the body
<table>
<thead>
<tr>
<th>Concern</th>
<th>Body</th>
<th>Sexuality</th>
<th>Vocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical-sexual changes</td>
<td>Rapid changes in physical appearance</td>
<td>Accelerated sexual puberty changes</td>
<td>Continuous development toward maturity</td>
</tr>
<tr>
<td>Cognitive -derived attitudes</td>
<td>Self-critical and self-admiring:</td>
<td>Questioning of beliefs, values and standard learned during early childhood</td>
<td>Conflicts between family influences and individual's interests regarding vocation</td>
</tr>
<tr>
<td></td>
<td>Imaginary audience</td>
<td></td>
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<td>Belief of invulnerability</td>
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<td>Relationships marked by</td>
<td>Egocentrism</td>
<td>Alienation</td>
<td>Reintegration into the family</td>
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<td>Expression of identity</td>
<td>Identity in group</td>
<td>Identity in personal (romantic) relationships</td>
<td>Identity as crystallization of vocation</td>
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1Based on Sahler and Kreipe (1991)
development and the self-image that comes with this polarizes the attention of the early adolescent.

Whether the adolescent experiences early or late changes, or has an on-time growth, the individual is greatly concerned about the image he projects on others. It is this image, eventually, which brings, or does not, the opportunity for engaging in peer groups, participating in academics and non academic activities, and adjusting successfully to the school environment. These results, in turn, will reinforce the self-efficacy feeling regarding schooling.

The way the physical spurt affects academics and social relations in school has been investigated only in recent years (Brooks-Gunn & Reiter, 1993). In particular the problem of timing in reaching sexual maturity has acquired relevance. Early-maturing girls and late-maturing boys seems to be the most affected by the self-image in school achievement and peer interaction. On the contrary, early-maturing boys and late-maturing girls seem to take advantage of their situation and adjust better to the school circumstances (Dusek, 1991). For early maturing boys, for example, school offers the opportunity to show their advantages in sports and leadership in face of other students. Teachers, on the other hand, tend to think of early maturing boys as being more able to deal appropriately with school issues, and provide them with continuous attention and praising. These facts reassure the students' self-concept and their sense of self-efficacy regarding school. School offers for these students opportunities for acting their potential, enhancing the proprio-perception, and, hereby, the perception of school itself.
It is worthwhile to note here, in spite of what I said, that physical appearance is not the only factor that determines the social status of the adolescent. Those who have social skills necessary for achieving high social status can be expected to have considerable ability to form and maintain close, harmonious and supportive friendships (Savin-Williams & Berndt, 1993). For these adolescents, to be off-time in physical development is an obstacle but not an impediment for group affiliation.

The cognitive changes that occur during these years constitutes the basis for the proprio-perception above described. The early adolescent, in comparison to the child, has a increasing capacity of allocating attention and can reach less concrete representations (Keating, 1993). This situation allows the early adolescent to begin to depart from the concrete descriptions of one's social and behavioral exterior "to more abstract self-portraits that describe one's psychological interior" (Harter, 1993, 355). The increased abilities also permit the adolescent to conceptualize the thought of others (Elkind, 1967, 1978). However, the adolescent seems neither able to separate his own thoughts -- and the events toward which they are directed -- from the others' thoughts nor distinguish the universal from the particular aspects of reality (Dusek, 1991; Elkind, 1967, 1978). The "imaginary audience", that is the belief of being the continuous center of attention of others, and the "personal fable", the belief of having unique feelings and thought, are direct results of this cognitive situation (Dusek, 1991) which, in turn, leads to an increased self-consciousness (Elkind & Bowen, 1979, cited in Dusek, 1991). Hence, the changes of self-image coming from physical changes have the effect of polarizing the adolescent's attention.
With an identity still fluid (Sahler & Kreiper, 1991), and the difficulties of discriminating the self-image from what he thinks others perceive in him, the adolescent individual relies on the group for greater stability. The early adolescent's self-judgements "depend on social comparison, normative standards, social similarities and behaviors that enhance interpersonal interactions and social appeal" (Harter, 1993). That is why the "perception of significant relationships" focuses here on the relationship of the adolescent with the peer group. The individualism of the adolescent during these years is determined by belonging to a group which is different from the adult world rather than the isolated activity. It is in the group that the adolescent experiences both the security of not being "judged" by others who are "different", and the possibility of sharing his unique thoughts and feelings with those he perceives as closer to him. The exploratory activity of the early adolescent regarding school -- here school activities and social behavior in school -- is carried out mostly with the group and within the group (O'Brien & Bierman, 1988). The parents' and teacher's perception of school still influences the adolescent's own idea about what school should be and other matters (Clark-Lempers, Lempers & Ho, 1991), and early adolescents tend to subscribe to an ideal work ethic (Pautler & Lewko, 1985). Nevertheless, the affordances that the adolescent perceives from school come mostly from the peer group acceptance, from the possibility of being him- or herself in the group, and the success in school activities that could emanate from this pertinence. The perceived friend's emotional support and the number of reciprocated friends contribute to school competence, peer competence, and perceived self-competence resources (Cauce, 1986).
This leads, in turn, to more involvement in school and to place more value on what is learned in school (Savin-Williams & Berndt, 1993).

Both the early or late physical maturing situation and the impossibility of belonging to a group for those reasons, may render a negative perception of the affordances of school in the early adolescent. Unpopular and rejected children have been found most likely to be aggressive, to drop out of school and to engage in criminal behavior (Song & Hartie, 1984; Savin-Williams & Berndt, 1993). Lack of acceptance or attention from teachers at school, and lack of opportunities for getting involved in decision making are also factors to be considered, although their effects regarding perception of school may be compensated by group interaction (Fulegni & Eccles, 1993). In the terms used in this chapter, a negative proprio-perception and a negative perception of significant relationships may stress the difficulties coming from the transitional demands during these years.

Perception of School in the Hispanic Early Adolescent

The literature about the effects of body changes during early adolescence in Hispanics is scarce, and the studies about peer group influence has tended to emphasize the negative side. Since the factors that may make an adolescent vulnerable to negative effects of pubertal change are largely social (Brooks-Gunn & Reiter, 1993), it is possible to infer some difficulties for members of minority groups, in particular for girls. For example, the cultural preference for thinness (Tobin-Richards, Boxer, & Petersen, 1983) may be an additional stress for girls who may already have experience social
discrimination in the school. A study with Puerto Rican adolescents (Melcer, 1991) indicated, however, that girls may be supported by the ethnic group values of greater personal physical acceptance. Another example is the risk of early-pregnancy among Hispanic early-maturing girls. This is due not only to their seeking of relationships with more mature boys, but also to the sexual pressure they may experience from older males in and out of school, including teachers and close relatives. In different circumstances, Hispanics parents may increase supervision and monitoring, placing overwhelming demands of discipline and isolation in their early maturing daughters because of the former's fears regarding early pregnancy (Turner, 1990). Although achievement does not seem to be related to parental supervision (Turner, 1990), and researchers have found positive results with monitoring parental activity, an indirect effect on perception of affordances of school may come from the reduced contact with other peers who provide the necessary support at these years.

In early maturing boys, the prestige earned in athletics and leadership may move them away from academics (Brooks-Gunn & Reiter, 1993) or create a false proprio-perception with effects in future educational experiences. These Hispanic adolescents may also be pushed by their parents to assume more adults roles due to their physical appearance, especially to seek for a job. Late maturing boys, on the other hand, may experience a particular disadvantage given the value placed on physical strength, sport and macho behavior (Brooks-Gunn & Reiter, 1993) by older adolescents and adults in some economic levels of the Hispanic community.
From the four components of the model, therefore, proprio-perception and perception of relationship with significant others, here relation with the peer group, emerge as the main variables during early adolescent years that main put these adolescent at risk of dropping out of school. The other two variables are also components of the perceptual activity but are not relevant during this time. The conflict between the adolescent's perception of school and his parents' will appear in the next stage and the school-related goals are still linked to the immediate accomplishment. Attention is focused in body growth, self-image, and peer's acceptance. The differentiation of affordances of school is related to peer support and peer group participation and the exploratory activity is carried out in a group fashion.

Perception of School in Middle Adolescence

The "concern" in middle adolescence is sexuality (Sahler & Kreiper, 1991). Accelerated sexual puberty changes, and the surges in sexual drive make the exploration and exercise of sexuality a major focus of attention in the middle adolescent, and a relevant point during this period. The rate, intensity, expression and modality of sexual activity differs significantly between boys and girls, being more acute in the former. Masturbation and same sex encounters appear problematic to the middle adolescent boys who deal with new feelings and urgencies.

Dating is a major exploratory activity during this time, although it will be fully carried out in late adolescence (Savin-Williams & Berndt, 1993). Whether it is given in group, double-couple, or single-couple fashion, dating appears as an area to explore the
rousing sexuality and the knowledge of the opposite sex (Dusek, 1991; Sahler & Kreiper, 1991). Additionally, researchers have found other developmental functions in dating, some of them overlapping with the benefit of friendship (Savin-Williams & Berndt, 1993).

Dating, together with peer groups, convey the exploratory activities during these years. The school appears as an opportunity to engage with members of the opposite sex in academic and extracurricular levels. This situation offers areas to enhance the self-confidence other than sports. New prestige earned in academics before members of the opposite sex may compensate for the previous lack of strength and physical abilities. Because on-time maturing adolescents start experiencing physical growth all together, the problems of isolation are not present and the appropriate adjustment can favor the incursion in other school aspects. The peer group still remains very important for providing social support and a mechanism for dating. At the same time, it suffers a negative effect from the onset of relationships with the other sex (Savin-Williams & Berndt, 1993).

The cognitive changes at this stage follow the developmental trends initiated in early adolescence. The middle adolescent has a greater capacity to allocate attention and is more skillful at directing his available resources. He departs even more than the early adolescent from concrete representation and his thinking is no longer limited to a single issue, moving on the contrary toward a multi-dimensional thinking. His conception of knowledge is more relative, and, in general, the adolescent becomes more self-reflective and self-aware (Keating, 1993). During these years the personal perception switches more radically to suggest more internal psychological characteristics rather than external or
physical features. Hence, the adolescent is more "susceptible" and "sensitive", perceives himself as possessing more "abstract" characteristics, and can conceive of different and contrasting self-representations (Harter, 1993). Finally, more able to develop different strategies, and with the capacity to project himself to different areas, the middle adolescent passes through an increasing differentiation of the self concept. During this period, the adolescent develops different selves in different roles (Harter, 1993), and there may be a self which is cheerful and sensitive with friends, and another which is depressed or sarcastic with parents.

In particular, the perturbances in the parent-child relations during this time can be explained by the increasing capacity of abstraction and detachment from concrete representations in the adolescent (Dusek, 1991; Sahler & Kreiper, 1991). These cognitive changes find their expression in the adolescent's search for individuation, as he or she develops a clearer sense of self as psychologically separate from his or her parents (Steinberg, 1993). The values, standards and beliefs that the adolescent learned in his childhood are contrasted now with the amount of information that he can handle, many times conveying contradictions, and the hypothesis that he can formulate. Although researchers have found that conflict with parents are above all focused on topics of external behavior and that adolescents still rely on their parents' concept for matters of morality and significant decisions (Montemayor, 1985), it is generally accepted that the relationship with parents undergoes a major realignment during this time.

In this sense, the component "other's perception of school" acquires preeminence here. During early adolescence, the negative perception of school, that is the impediment
of perceiving the affordances of school, was due in part to the poor self-image and the lack of integration in a peer group. Here, although those factors may still be present, the main difficulty in middle adolescents for perceiving the affordances of school come from the contrast between what they experience and formulate, even hypothetically, and what adults (parents and teachers) say about school. The need for autonomy and active decision making and the circumstances brought about by the organization and structure of the school during these years is another source of difficulty for perceiving the affordances (Eccles, Lord & Midgley, 1991; Eccles et al., 1993; Enwistle, 1993). The counteraction against the exertions of independence of the early adolescent cannot be carried out in the same way now (Clark-Lempers, Lempers & Ho, 1991), and the adolescent may feel that the parents' word regarding schooling does not have any influence upon them. At school, teachers are seen neither as important nor as satisfying as in early adolescence; and males, above all, can get in conflict with teachers more frequently (Clark-Lempers, Lempers & Ho, 1991).

Perception of School in the Hispanic Middle Adolescent

As with early adolescents, research on Hispanic middle adolescents is extremely scarce. A study investigating the role of relationships with parents and peers in middle adolescent adjustment did not find differences due to ethnicity, (Weinmann, 1992) although the effects of puberty on the parent-adolescent relationship seems to be opposite between Hispanics and non-Hispanic whites (Barrera, Li, & Chassin, 1993), the former showing less conflict and greater closeness.
No studies on the process of dating in Hispanics have been carried out, although statistics about different parameters regarding this activity are available (Savin-Williams & Berndt, 1993). It seems, however, that ethnicity does not have a differential effect in sexual behavior; attitudes toward sexuality in Hispanics are similar to those of Non-Hispanics Whites. Gender and friends' behavior account for differences in sexual permissiveness among some groups of Hispanic people (Han, 1992). In this study, SES was positively related to more liberal attitudes regarding sexuality in both males and females. Other studies found that family influences were no predictor of Hispanic sexual behavior, whereas individual and social influences were (Johnson et al., 1993).

If in early adolescence, proprio-perception and perception of significant relationships were the components of the model that played a major role in perception of school, in middle adolescence, the components are "others' perception of school" together with "perception of significant relationships", focused above all in relationships with the opposite sex. The attention is focused on the appropriate expression of sexuality, and the exercise of increased cognitive abilities. The discrimination of information permits the adolescent to perceive the greater or lesser support of adults in and out of school, and from the peers, as well as the opportunities that school offers the adolescent to express his criticism (Dusek, 1991), to participate in decision-making (Eccles et al, 1993; Keating, 1993), and to formulate his hypothesis about himself, the school and the society.
Perception of School in Late Adolescence

In this period, theoretically at least, the adolescent reaches the cognitive stage that Piaget had named as "formal operational thinking" (Piaget, 1977). The characteristics of this developmental stage permit the adolescent to depart fully from the concrete experience and elaborate abstract representations. That is why the adolescent can think about his thinking, coordinate different and contradictory experiences and elaborate hypothesis about his personal and social future. The late adolescent has developed enough skills to elaborate multiple strategies in problem solving, and is able to allocate attention to the significant aspects of the situation to confront. The cognitive abilities together with the process of self-identification make vocation, that is what the adolescent thinks of becoming in the future, the main concern of this period.

The vocational concern resumes some of the exploratory activities we find in the late childhood such as increasing interest in the exercise of the own capabilities and the exploration of activities that can provide hunches about the future. But the cognitive situation of the adolescent makes this exploratory activity linked to the searching for an identity that can provide him stability and possibilities of social interaction in the future. Thus, the attention during this time is focused in what the adolescent can be, and the exploratory activity centers on the possibilities offered by the school and the society for his own realization (Pautler & Lewko, 1985). It is worthwhile to note, however, that male and female career development from early to late adolescence are two separate and different processes (Gonia, 1991) as is shown in the different attitudes of gender toward the work world (Pautler & Lewko, 1985).
Therefore, if during early and middle adolescence, the school-related goals and others' perception of school were confounded with other more self-oriented processes of development, now these variables acquire broader importance in the mechanism of perceiving the school. "School-related goals" are no longer circumscribed to what the teacher dictates to the students or the parents' demand from their children. The "school-related goals", although achieved in the immediate school environment, acquire relevance as preparation for a post-school period.

"Others' perception of school" acquires renewed importance for the adolescent's perception of the affordances of school. The late adolescent who has passed through the process of self-identification, has also realigned his relationship with the family, and shows the ability to integrate the parental and other adult's view within the self-system without losing individuation (Mazor & Enright, 1988). Family context has been found to be a factor strongly related to the levels of planning and internality concerning the future in adolescents (Nurmi, 1991). Conflict emerges, however, when parental aspirations regarding their children's education do not conform with adolescent's desires (Sahler & Kreiper, 1991).

Proprio-perception is given now by the perception of one's own vocational interests, the ability of using what school offers to him, and the sense of self-efficacy regarding future academic and social outcomes. Self-monitoring behavior has increased in late adolescence as sensitivity to the expressive behavior of others (Pledger, 1992), and this is especially experienced in academic realms. The fact that late adolescents attribute
failure to internal causes, like effort or ability, rather than external ones (Wisniewski & Gaier, 1990) contribute to the perception of their performance at school.

This greater sensitivity also makes perception of significant relationships, which are associated with romantic relationships, an important component during this time. Close relationships with the opposite sex are expected and reinforced during this time (Clark-Lempers, Lempers & Ho, 1991) although differences of perception of these relationships between genders are significant. Peer group relationships, on the other side, have been faded by the romantic relationships and are not as significant as they were before in perception of school (Clark-Lempers, Lempers & Ho, 1991). This last finding, however, seems to be contradicted by others which show a conception of peer group influence as global and far reaching during late adolescence (O'Brien & Bierman, 1988).

Perception of School in the Hispanic Late Adolescent

Little research on career development in Hispanic adolescents is available. Regarding Hispanic adolescents' perception of school as a means of future realization the findings are variable. One study found that Central American emigrants saw education as a means of becoming someone powerful enough to help families back in the country of origin (Suarez-Orozco, 1987). In children of Hispanic Americans, this vision is not always present. The cited work of Ogbu (1978, 1991) on African-Americans and other "involuntary" minorities puts emphasis on the negative feelings regarding schools when adolescents of these groups perceive the "ceiling effect" in jobs, for example. Others (Enwistle, 1993; Han, 1987; Taylor et al., 1994 ) have pointed out the same situation. Han
(1987) found that the higher perception of limited opportunity in Hispanic adolescents combined with their high aspirations suggest major frustrations among these youth from the disparity between their level of aspirations and life changes in society.

Somewhat related, other researchers (Henderson & Dweck, 1993) have referred to a "clash in cultural values" in Hispanic adolescents as a factor which affects the students' motivation at school and after school. But because Hispanics comprise multiple ethnic groups without comparison between these groups, it is difficult to know if the "cultural clash" is a real factor or is confounded with others. In one of the few studies comparing sub-groups in the Hispanic community, different causal factors for high school attrition were attributed to different groups (Velez, 1989), but the process of how those factors affect the motivation or perception in those groups was not addressed. Another study (Hernandez, 1990) examined the influence of socioeconomic status, significant others and academic performance on the educational expectations and perception of adolescents from different Hispanic groups. Although the relationships among variables varied in the different Hispanic groups (for example, Puerto-Rican and Mexican-American were more influenced by parental expectations in their peer selection than Cubans) no explanation for these findings was provided. There is some available research on the influence of other's perception of school on the Hispanic adolescent's perception, although not specifically in the late Hispanic adolescent (Fletcher, 1990; Johnson, 1992; Leun, Wright, & Foster, 1987; Smith, 1991).
Search for an Identity and the Unitary Perception of School

Thus, from early to late adolescence it is possible to see displayed the four components of the perceptual activity, which may interact over time. Since perception has been defined as the relation of the individual with the environment the variables have been addressed here from the perspective of the individual. For example, the others' perception of school is present in the model inasmuch as the adolescent is affected in his or her interaction with the school and shows this in the perceptual activity in the school.

The "others' perception" is not limited to school matters, and it may be that the exercise by family, teachers, and peer group of the indicative language about affordances in other areas of the adolescent life has an indirect effect on perception of affordances of school. Thus, optimism and sense of control in the family, in other than academically related activities, seems to be successful in motivating teens toward school achievement among African-American (Johnson, 1992); father's explanations of events in their adolescents' lives have been positively correlated with adolescents' explanations of their own events (Turk and Bry, 1992); and concern for the use of language at home was found significant in Puerto Rican high achieving children (Soto, 1988). However, since these studies have used school achievement or related measures to assess directly the effect of the independent variables, it is difficult to know how adolescent's perception in other areas has a relationship with perception of school. The lack of research on these issues in Hispanic adolescents impedes arriving at more conclusions. The way these variables interact remains a point of inquiry for future research.
The "search for identity", the cultural-developmental task of adolescence gives unity to the perception of affordances in school at different stages of the adolescent development. The progressive acceptance of the own physical image and the sexual role, the establishment of positive and constructive relationship with peers and with a romantic couple, the forge of an own system of values, the realignment of family relationships, the figuration of the particular vocation, all of them are successive and interwoven steps in the acquisition of an identity. Identity has been as "a sense of continuity and sameness" (Erikson, 1985), a sense of coherence through evolving time social change and altered role requirements (Hoare, 1991), a sense of who one is both as a persona and as a contributor to society. The apparently disparate perception of affordances of school -and in other areas of the adolescent interaction- are unified under this search. The opportunities for action that school offers the adolescent, therefore, can be defined as opportunities for developing the own identity, understood in the terms just explained. Identity which is also embedded in the social reality of the member of the minority group. The way school contributes to the Hispanic adolescent's development will be matter of the next chapter.
CHAPTER V
THE AFFORDANCES OF SCHOOL

Affordances of school: Opportunities to acquire an identity in society

The idea of school that emerged from the previous chapters was of a complex environment constituted by objects, places, events, and other individuals, whose interactions and patterns of behavior aim at transmitting knowledge. Like any other environment, school has its boundaries, its inner relations, its characteristics that give its particular appearance to those who perceive school as a whole unity.

Nevertheless, the idea of school as a particular and delimited environment seems to overlook the other aspect that must be included in a school, namely that it is an institution of culture (Rogoff, 1990); a school prepares a child to become a member of a cultural community.

It is in this sense that we also talk about school as a place for education. The process of education aims at "preparing the young for life as lived" (Bruner, 1986, p.123) and through preparation to transmit, preserve, and recreate the culture in which society is based. As an educational system, a school "offers the most efficient and systematic means available to promote the psychological, social and physical health of school-age children and adolescents" (Weissberg, Caplan and Harwood, 1991, p.835), at least ideally.
For the same reasons, a school is one of the means that society establishes to transmit this knowledge. It is the constraints and pressures of society which determine what a school can be: ranging from ideas about how education should be, to the physical characteristics of the building where the instruction is imparted. "The values, beliefs, and attitudes of school community members" are "reflected in the institutional patterns, processes and behavioral practices utilized in the school across time" (Flanagan & Trueblood, 1983). Going to school is an experience of socialization.

Since the search for identity confers unity and continuity on the multiple perceptions of the adolescent over the school years, it is the social nature of a school, its functions as a cultural, educative and socializing mechanism which bonds the affordances that school offers the individual. Both senses of unity are interwoven. Since the function of school is to shape the components of a society, the promotion of the psychological, social and physical health of school-age children and adolescents becomes its main concern (Weissberg, Caplan and Harwood, 1991). The unity of the affordances offered by school, then, is related to promoting the basis for a equilibrated and mature identity in the adolescent. It is not that school is the only instance of development. But school provides "significant and sustained contact" with most children in industrialized, and some less industrialized societies, "during formative years of personality and development" (p.835).

Hence, if there is not a sustained effort to provide the adolescent with the opportunity to increase who he is -- both as a person and as a contributor to the society (Hoare, 1991) -- it will deter his perception of school. The affordances which the adolescent "wants" to perceive are those related to his identity construction. The
opportunities for action are opportunities to increase the knowledge of one's coherence and authenticity, and that means: exploring the self "through evolving time, social change, and altered roles requirements." (p.47) Finally, the opportunities for action have to lead the adolescent to commit himself ideologically and vocationally:

Ideological thinking now takes the form of a question: "What is it to which I can commit myself in some sustained way (ideologically and vocationally) to what I believe in?" And, in that life epoch, society's question is heard for the first time with the full force of its future-oriented meaning: "What will you eventually do to help sustain society, in return for which society will reciprocate with rewards of acceptance, recognition and remuneration?" (Hoare, 1991, 47).

When the school cannot help the student to focus upon these questions, or when the questions cannot be responded to because of social constrains, then, the adolescent loses the affordances, and the perception of school is negative. But, what are the possible contributions that a school can give to the developing adolescent? How can a school help an adolescent development?

**Affordances of School for Adolescent Development**

Hamilton's (1984) suggested ways "to make secondary schools more effective in fostering adolescent development" (p.277). His assumption, which coincides with my interpretation about what constitutes a school, is that "development is the proper aim of education." It is in light of this idea that Hamilton suggested four contributions that a secondary school can make to adolescent development.

It is noteworthy to notice the affinity between the conceptualization of development in Hamilton (1984) and the ideas presented by E. Gibson about perceptual learning. For
Hamilton development is "the increased ability of a person to understand and act upon the environment" (p.227). Consequently, it comprises learning and socialization, besides physical growth. In E. Gibson's approach, perceptual learning is basically the increased ability to differentiate between the specifics of the environment and above all the affordances of it. Perception, she said, is what relates individual and environment, what allows the individual to "understand and act upon the environment." Hamilton undertook an ecological framework, and it is in this framework that the "contributions" of school have to be understood.

The first contribution of a school to adolescent development is teaching knowledge and skills that "probably they would not learn elsewhere." (p.229) The things taught at school include not only facts and skills, "but also ways of thinking about issues and the capacity to continue learning" (p.229). Hamilton referred to the argument raised by some researches about how much of what is learned in school can be acquired outside of school. He concludes that this does not deny the idea of schools teaching knowledge and skills. The issue is, however, "whether they (the schools) could do so more effectively and efficiently" (p.230).

The second contribution is teaching how to behave in formal organizations. Hamilton argued that, although some theorist have complained about this function as a way of maintaining the status quo, learning how to deal with bureaucracy and formality is necessary.

In a society dominated by large formal organizations, including governments, employers, and the providers of goods and services, young people need to learn the difference between their families, peer groups, and
other primary groups on the one hand, and formal organization on the other. Without understanding at least that there are consequences to ignoring rules and that there is a difference between persons and positions, the citizen of a modern society cannot hope to 'understand and act upon the environment.' (Hamilton, 1984, p.231)

The third contribution is conveying a common culture. The frequent discussion about pluralism and culture challenges the "traditional emphasis on schools as transmitters of a common culture," but actually this is the way, even lacking a common curriculum, that schools through their organization and educational system operate. Hamilton said,

The near universality of schooling and the essential similarities in both content and process from place to place contributes to cultural cohesion and introduces young people whose families and neighborhoods are dominated by distinctive subcultures to the knowledge, manners, values and expectations of the mainstream culture. (p.232)

The fourth, and final, contribution is to provide opportunities for peer interaction. The fact that almost all adolescents spend years at school provides an unique opportunity to get to know each other. "Schools are inhabited by peer groups" (p.233). For Hamilton "adolescents must learn to interact with peers as part of their development" and the secondary school is "an arena for peer interaction." (p.234) Hamilton (1984) addresses only briefly the issue of identity formation during adolescent years.

These four contributions to adolescent development can be considered sources of affordances for action. On the other hand, these sources of affordances or contributions have to be seen in relation to the character of a school as a mechanism of socialization, and, consequently, as opportunities for action in the society. Here rests the potential of both risk and success.
Affordances of School and the Identity of the Hispanic Adolescent Perceiver.

The question that I want to address is how these four contributions noted by Hamilton help the adolescent to perceive the opportunities for action regarding his identity. In other words, how do imparted knowledge, peer socialization, adjustment to bureaucracy, and conveying a common culture -- how do these facilitate or make more difficult the self-knowledge, the establishment of significant relationships, and the examination of social responsibility in the perceptual activities of Hispanic students?

Teaching Knowledge and Skills

The first contribution focused on the knowledge and skills taught at school. They should promote in the individual a "particular way of thinking and the capacity of continue learning." (p.229) Studies have shown that "poor academic preparation together with a disadvantaged economic background of minority youngsters may account for their high dropout rate rather than factors such as greater family disruption or dialectic differences." (Enwistle, 1993, p. 201). This makes the knowledge task and skills an important contributor for perceiving the school positively. The analysis of these studies was made in relation to going to college. When factors such as grades and test scores were controlled, Black and Hispanics were more likely to go to college than Whites (Enwistle, 1993). Since, the contribution of the learned skills and ways of thinking was in relation to the future, it may be that minority youngster who do not see themselves as learning "something" from school that might be necessary for future academic success will tend to
depress his school motivation. In this sense, the type of school is related significantly to
the educational attainment by having academic motivation as an intermediate variable
(Cassidy & Lynn, 1991); and the building of this variable has been related to the
transmittal of achievement-related values and attitude by parents and adults (Heckhausen,
1967). In this line of thinking, the existence of a "shopping mall" curriculum and the lack
of directiveness from the side of the school have been detected as factors for school failure
(Bryk & Thum, 1989, p.356). Hispanic students who feel they are not learning anything
valuable at school may look at dropping out of school as an alternative (Reyes & Jason,
1993).

How can we combine this findings with the search for identity? Even though the
focus of attention is not on academics during early and middle adolescence, the repetitive
discourse from parents and teachers, continual comparisons among themselves, and the
desire of prominence over peers may interest adolescents to learn skills which they
considered valid. In addition, the adolescent tends to look for new knowledge, to exercise
new strategies, to allocate new discovered resources (Keating, 1993). If they do not find
an way of satisfying this motivation, the opposite figure can be displayed. (Eccles et al,
1993) The Hispanic adolescent may be challenged by the difficulties of an educative
environment that contrast with that of the home or neighborhood, but at the same time, he
may feel motivated to learn whether by parents' incentive, competition with peers or his
own standards of achievement. The problem arises when teachers teach in less challenging
manners because they consider their students unable to achieve higher academic levels or
better performance. Studies on effective schools have pointed out the expectations of
principals and teachers as significant influences on student performance (Cook, 1988; Follman, 1990; Kenealy, Frude, & Shaw, 1991). Yet minorities and children from lower socioeconomic classes are largely depicted as targets of low expectations (Weinstein et al., 1991). That may be a reason why minority students (African Americans in particular) do better in desegregated school because of the higher standards that stimulate greater achievement (Enwistle, 1993). Content and level of teaching are important here.

On the other hand, school has been found actually to modify the "way of thinking." Rogoff (1990) among others has examined the relation between the institutional level of culture as it is concretized in schooling and the process of individual problem solving. The evidence of changes in this area has been found in the level of responses in memory test and syllogism word problems. Schooling affects positively the allocation of resources to deal with this kind of problems. The question about how useful these skills are to deal with everyday problems is another problem. Few cross-cultural studies have addressed the point of the usefulness of what is learned in school. Is a minority student's cognitive attainment in solving mundane problems due strictly to schooling? Ceci (1990) reviewed some related literature and concludes that

...One of the primary mechanisms by which schooling influences cognitive development is by fostering disembedded modes of thinking that are not tied to personally experienced events... Schooling fosters thinking about events and concepts as they are learned in school but not necessarily as they are confronted outside the school. (Ceci, 1990, p.88)

Given the kinds of problems that threaten the school attainment of students from minority groups, one could wonder whether the label "disembedded modes of thinking" is mistakenly assigned. The need to strengthen the relationships among school, family and
neighborhood must lead schools not only to talk and to discuss the problems as an extracurricular activity but also to orient the skills and curricula to the confrontations that adolescents have outside the school environment as well.

Teaching How to Behave in Formal Organizations

Hamilton's (1984) second contribution was *Teaching how to behave in formal organizations*. Hamilton referred to school norms, grades and tracking as concrete expressions of the organization of schools. But, at the time of examining the contribution for adolescent development, both ways are related to teacher-student relation, evaluative standards, competition, and to school adjustment.

The junior-high and high-school environment challenge the confidence of teachers in their teaching efficacy, decrease teacher's expectations regarding the students, emphasize teacher's control and discipline, and shift teacher's criteria and form of evaluation. (Eccles et al., 1993) All this brings about fewer personal and positive teacher-student relationships. In this context, norms regulating either discipline or academic behavior are transmitted to the student in ways that may have a negative impact on a student's self-perception and motivation (Eccles et al., 1993). The adolescent student is in need of both learning how to behave in formal organizations and how to understand the regulations of such organizations in a framework of positive relationships where the norms help the social integration. Questioning beliefs and concepts learned in childhood (Dusek, 1991; Sahler & Kreiper, 1991) and the search for individuation do not favor in adolescents an acceptance and assimilation of norms, especially when these are linked to
a negative experience of relationships with those who teach the norms. Norms themselves are not a problem; actually, a strong set of norms in high schools have been found to help students behaviors become less problematic. (Bryk & Thum, 1989) Their presence in a climate of truancy and low expectations with the absence of caring adult relationships, however, may increase the condition at risk of students.

Students, even before entering junior high or high school, are aware of the disturbances in the teacher-students relationships and their consequences. Younger children, but also adolescents living a process of reaffirmation need some kind of feedback from their significant others. (Weinstein et al., 1991) They are aware of the differential treatment and infer that their relative performance in school depend on the opportunities, choice, positive feedback, and explicitness of expectations. One of the factors that places minority youngster at risk of having a negative perception of school is the "operation of differential and very low academic expectations for what they can accomplish." (Weinstein et al., 1991) For the Hispanic adolescent who exerts an effort to accomplish student tasks, this lack of teacher's expectations affects his own self-concept and the concept of the teacher. (Natriello & Dornbusch, 1984) Consequently, the effect of this on the quality of student-teacher relationship will produce a decline in school motivation (Eccles, Lord & Midgley, 1991).

The effect of lower teacher's expectations is reflected in the evaluative standard they use with minority students. This attitude was analyzed by Natriello and Dornbusch (1984) in their study of students' perception. They found teachers used the academic unresponsiveness of low-achieving minority students in an unchallenging manner. This
inflated the students' subjective assessment of effort "without similarly enhancing the more objective measures of effort they devoted to school tasks." (p.91)

This situation does not benefit the student at all and may become extremely harmful for students who obtain their self-confidence and sense of efficacy from the grades they receive. (Eccles et al., 1993). A change in grades will affect the self-perception and academic motivation of the students. Yet students may agree with the standards when the evaluations are characterized as being central, influential and soundly based. (Natriello and Dornbusch, 1984) The problem may surge when the students do not perceive evaluations of their school work as important for entry into and performance in future careers. Then "the evaluations will be less likely to lead to student effort on school tasks." (Natriello and Dornbusch, 1984, p.87) Minority adolescents, like those in the majority, learn best when a teacher combines challenging standards with warmth and affability. (Spencer and Dornbusch, 1993)

The formal organization of a school is not limited to the norms dictated by the classroom teacher or the evaluative standards. The organization also attains to "departmentalized teaching, ability grouping, [and] large student load" (Eccles et al., 1993). These characteristics when combined with school size have a negative impact on teachers and students. (Enwistle, 1993) A complicated bureaucracy in an environment with dimensions that may be overwhelming to the student do not help for his adjustment. A school with these characteristics is largely impersonal, has more formalized adult-student interaction (Eccles, Lord & Midgley, 1991), has a limited capacity of personnel (Felner & Adan, 1988), and the adolescent in needs of self-determination and decision-making
participation may find few chances of being "featured in a key role," (Enwistle, 1993, 211) and receive less support and assistance. Overall, high levels of structural differentiation within high school and weak normative environment seems to contribute to a negative perception of school that may end in dropping out of school (Bryk & Thum, 1989).

Conveying a Common Culture

The third contribution proposed by Hamilton (1984), conveying a common culture, is itself a source of controversy. The definition of what a common culture is (or ought to be) problematic. The discussion of this issue transcends the modest proposal of the present study. The remaining question is this: does conveying "knowledge, manners, values and expectations of the mainstream culture" while necessary to live in society, does this offer an actual opportunity for action to members of the Hispanic community? What contribution does this offer which may be perceived by the developing adolescent? From all the possible effects of the educative policies regarding Hispanics two seem to be important for the discussion of perception of affordances: acquisition of a foreign language and modernization of values.

There are many studies on the effects of speaking-Spanish-at-home on academic performance, but few have addressed the effects of non-proficiency in a new language on one's perception of a school. It seems that Spanish does not impede the achievement of Hispanic students. Achievement, in turn, varies in different generations of Hispanics (Burial and Courtesy, 1988). Others have found a negative association with achievement
when the frequency of using Spanish is high, but a positive association when the students were bilingual (Fernandez and Nielsen, 1986). The use of Spanish at home also seems to impact on the perception of parental support regarding a school among adolescents (Vugia, 1991). Probably, this detriment in perception of parental support is due to the external attribution of the failure in school. Vugia (1991) did not compare students at-risk with students who were not classified as being at risk, and this explanation is only an inference.

San Miguel (1993), in describing the history of Hispanic groups struggling with American schools and life, pointed out the elimination of the English-only laws and the enactment of federal and state legislation supporting the use of non-English languages in schools as one of the main successful achievements in the vindication of Hispanic culture in the last decades. However, it remains to see how this new regulation promotes a better adjustment of the students to the schools and how goals of bilingualism or biculturalism in education can be concretized among schoolchildren.

The situation of Hispanic students regarding acculturation has been little addressed. Researchers have found that acculturation relates positively with achievement and retention in school and seems to have positive effects on cognitive style (Keating, 1993). Guajardo (1989) comparing dropouts, strugglers and achievers in school, found that dropouts were less acculturated to the Anglo American culture, had less effective coping abilities, received less social support from school personnel and peers, and were less engaged in school. Although Guajardo's work states that "an interplay of host factors appears to contribute to educational attainment," it lacks an analysis of the interaction between the acculturation and the others characteristics present in prospective dropouts.
Manaster, Chan & Safady (1992) compared successful and non-successful high risk Mexican-American migrant high school students. The families of the successful group is found to score higher in modernism and acculturation that those of the unsuccessful group. The successful students also show higher occupational aspirations and expectations than the successful group. It is possible that a better proprio-perception, that is, a better sense of dealing with the "American" environment and perceiving its affordances helped students to perceive the affordances of the society, since they expect better jobs and greater stability in the future. A comparison between Mexican-American and Anglo-American students (Buenning & Toffelson, 1987) and high- and low-achievers in both groups revealed that despite differences in perception between cultures, overall: high-achieving students were less traditional and more independent that low achieving students. Modernism and field-independence can be associated with greater inculturation in American society. Lan Rong & Grant (1992) found that school attainment among Hispanics improves with each successive generation. A proposed explanation is a greater acculturation of students to schools and/or school's increased adaptation to minority cultures. However, Lang Rong and Grant also notice that "perhaps too much acculturation into American society inhibits rather than aids attainment by reducing effort and introducing distractions, such as social activities and youth employment" (p.633). Ornelas (1986), on the other hand, found education to be the stronger predictor of assimilation and acculturation, followed by place of birth and time of migration.

Whether, as most of the cited studies found, acculturation improves adjustment, perception of school and achievement, or does not, these studies did not show that school
was the cause of greater acculturation. Hamilton's proposal ("school conveys a common
culture") has been interpreted here as conveying the culture of the mainstream society and
the underlying hypothesis was that greater acculturation could enhance the perception of
school in Hispanic students. There is still too much research to be done. High-achieving
Hispanic students may be more acculturated, but we do not know yet whether this
acculturation is a result of perceiving the affordances of society or vice versa, and whether
school is the major source of acculturation.

A delicate point for researching has to do with the differential treatment of minority
students by the teachers based in a deficit model of perception that associates achievement
and academic potential to racial condition. Bahr et al. (1991) formulated the question in
terms of a teacher's perception of difficult-to-teach students. They found that teachers
associate such conditions with race: the number of Blacks referred to psychological
evaluation and special education was greater. So Bahr et al. (1991) found that Hispanic
students received more positive treatment from Hispanic teachers than from White
teachers, except where a college-bound label was assigned to a Hispanic student. Then,
the student was treated the same as the White students. The effect of the treatment based
on a racially biased perception may affect the sense of self-efficacy in students who put
effort in achieving academic goals.

Another point that has not been researched is the contribution of the Hispanic
culture to a better perception of school, something that certainly challenges the perspective
of research and the educational policies. Henderson and Dweck (1993) affirmed the
common knowledge that the Hispanic community tends to value the group over the
individual and that may be antagonistic to the "individualistic achievement goals of our society" (p.327). Perhaps the affordances that an individual perceives in school and outside school are perceived as common affordances, not in the sense that others are able to perceive the same affordances, but in the sense that they are affordances for the group and not only for the individuals perceiving them. The effects of this difference in the Hispanic student requires more research.

A final point has to do with the conflict between values learned in school and values learned at home. The cited work of Vugia (1991) is an example, but the point requires more research, especially regarding the effects of such conflict on the perception of significant others outside the school (Parents, peers, Hispanic community), and the effect of this perception on perception of school.

Opportunities for Peer Interaction

The fourth and final contribution is opportunities for peer interaction. What kind of opportunities the school offers the adolescent and how these opportunities are related to the perception of the affordances to achieve and identity are the underlying questions. The discussion above and in previous chapters has made the point that a school's social climate, constituted by relationships with teachers and school peers, is determinant in the adjustment of the individual to the school environment (Bryk & Thun, 1989; Cairns, Cairns & Neckerman, 1989) and the perception of the affordances of school. I have already highlighted the importance of peer and romantic relations in achieving an identity (Chapter III). The adolescent, during most of the school years will focus on these
relationships as a concern (even when other concerns may have occupied a preferential place) and much of the stability and confidence necessary for achievement in school comes from a positive perception of these relationships.

Transition to junior high and high school poses a challenge for peer interaction. School size, distribution by age-grade classrooms, academic tracking, and novel areas for work but also for competition and social comparison have been related to changes in both peer relationships and the perception of these (Eccles, Lord, & Midgley, 1991; Eccles et al., 1993; Felner & Adan, 1988; Higgins & Parsons, 1983; Natriello & Dornbusch, 1983). A larger school favored the social exposure of adolescents by increasing the interaction with various adults and a greater contact with peers of different demographics status and different personality. Such social exposure seems to increase the adolescents tendency to describe and perceive others in terms of personal traits (Higgins & Parsons, 1983), and this may make differentiation and comparisons deeper concerns.

Although some findings sustain the idea of academic tracking or ability grouping, others seem to point out important disadvantages. One of these disadvantages is that "low track students attempt to differentiated themselves from peers by distinguishing themselves as 'smarter' than others" (Enwistle, 1993, p.207). Competitiveness is part of the philosophy of education. It becomes after elementary school a salient characteristic of the environment. It may be a stimulus for greater achievement; it may also be associated with social comparison and increasing concerns about evaluation (Eccles et al., 1993). At a time when there is a heightened self-focus (Eccles, Lord & Midgley, 1991), and there is a need for harmonic relationships with peers, these environmental changes may be harmful by
emphasizing self-assessment and disrupting social networks (Eccles, Lord & Midgley, 1991). Another disadvantage is the risk that comes from being grade delayed. Being older than peers contributes to the likelihood of dropping out of school (Cairns, 1984). Fernandez, Paulsen & Hirano-Nakanishi (1989) pointed out that to be grade delayed and the consequent age disjunction between those who are grade delayed and their peers leads students to perceive more acutely the lack of gift between them. Student motivation is concerned with how students think about themselves in relations to learning activities and to process of learning itself (Ames, 1992), therefore the poor proprio-perception that may come from an accentuated competitiveness when for academic or social reasons the adolescent disadvantaged can affect the perception of opportunities for action in school.

As Walker (1986) noted, these characteristics of the educative system lead individuals to equate certain levels of cognitive success with the ability to do well in society. Both, those who do well at school and those who do not are affected by this. The former because of raising expectations that may bring major frustrations when they are not fulfilled; the latter because, by equaling such aspects, they get a low appreciation of themselves and can be permanently undermined in their ability to achieve.

It is important to refer, finally, to the problem of gangs at school. This is not a consequence of school organization and therefore cannot be attributed to any of the characteristics of the school. Yet since gangs are present, they also form part of the environment. They have their own perception of the affordances that school may offer. They are a source of indirect perception for other students. Kyle (1984) pointed out that fear of gangs, by that time, was the most frequent reason given by a third of the sample
to drop out of school. But affiliation to gangs has been found to provide ingredients of self-identification in adolescents (Vigil, 1988), companionship and protection (Hochhaus & Sousa, 1988), and a channel to vent frustration for not achieving immediate goals. Hispanic students may feel the need of these aspects during high school years and periods of transition. The decline in almost every aspect of life (Felner & Adan, 1988) that transitions bring about can make the student vulnerable enough to get engaged in gangs.

The previous paragraphs seem to have contradicted the Hamilton's postulate of school as contribution to peer integration. The dynamic of peer relationships appears to have its own track apart from the school-related ones. Perhaps the fact of gathering together students for several hours a day during many days is the major contribution to peer socialization. The school organization, it has been shown, has an ambivalent influence on peer interaction. By disciplinary control and the offering of opportunities for interaction, school may guide the adolescent's learning to work with others in a more formal organization; but by favoring competitiveness and social comparison with a meritocratic system, the school may be a contributor in maintaining a social ideology that emphasizes individualism and self-support. This, we have seen, may go against the cultural values of some ethnic groups, Hispanics in particular. On the other hand, the presence of gangs at school may be an opportunity of peer integration for students with low motivation and high frustration. This integration, however, instead of increasing the perception of the affordances of school, may distract the students from them or lead them to perceive affordances other than those which favor future commitments with the community.
The four contributions of secondary school to adolescent development proposed by Hamilton (1984) have helped me to describe some of the difficulties that Hispanic students may have to perceive the affordances of school. The more experiential outcome of schooling has been defined as the adolescent's evaluation of opportunities in society (Walker, 1986). This evaluation supposes, in the individual, a sense of self as an active agent, in charge of his or her life narrative, who considers others and is able to take care of them. (Hoare, 1991) School, for its function, has an important role in the development of this identity. The adolescent in search of an identity will detect as affordances, opportunities for action, whatever helps him to achieve such goals. School achievement (in academic and other areas), significant relationships, the appraisal of other's perception of school and of the adolescent's life, all these are important areas that sustain the perception of school, because they are aspects that help the adolescent to acquire an identity, particularly an Hispanic student.

Once the individual is on the way to achieving his or her own identity (a life-span process at some extent), he will be able to "understand and act upon the environment," not that of the school, but the broader environment of society. Eventually, the test whether a new conception or a new competence represents development is whether it can be used in another environment [Bronfrenbrenner, 1979](p.35). One environment [, the school], therefore, may be the context for development, but development is demonstrated in another, which may in turn be the context for further development. (Hamilton, 1984, p.235).

By creating "an environment that brings economic, political and social forces to bear on all phases of development" (Entwisle, 1993, p.197), school enables the student,
at least theoretically, to know and to assume and to adopt the competence that makes him or her an active participant in the society. "In some ways a school populated by adolescents resembles a miniature society" (p.205) and the skills and ways of thinking, the experience of formal and informal organization, the common culture conveyed in habits and manners, and the experience of socialization with peers are nothing but reflections of aspects of the more extended social macrosystem (Bronfrenbrenner, 1979, 1989). The affordances of the school are affordances of the social environment, invitations for action in the larger society.
CHAPTER VI
SUGGESTIONS FOR RESEARCH AND INTERVENTION

The Model

Let us take the approximations and analysis carried out in the previous chapters in order to arrive at some conclusions and suggest some ways of intervention with these Hispanic students doing well at school. Both socioeconomic conditions and cumulative effects of transition make Hispanic students subject to risk despite their academic potential.

The effects of each of these conditions, or the combination of them, on leading students from minority groups to drop out of school have been broadly studied. Nevertheless, there have been few studies on the cognitive process underlying these correlations. The search for a model that can explain how socioeconomic conditions and cumulative stress in adolescence may cause the failure of students who have enough sense of self-efficacy regarding academics has been the goal of the present work.

The findings of Delgado-Gracian (1988), Reyes & Jason (1993) and Reyes (1993) suggested a model in which "positive perception of school" influenced staying in school. Given the fact that a history of good academic achievement would not lead the student to perceive school negatively other factors had to play a role here. The work of Ogbu (1978, 1991, 1992) and others (Taylor et al., 1994; Enwistle, 1993) pointed out some social
attitudes in members of minority groups that can produce in the student a negative perception of the function of the school. Basically, the source of those attitudes is the frustration coming from the contrast between what a school is - and what others say about school- and the "bleak opportunities" of personal development in the macro society.

James Gibsons' (1979) ecological theory of perception, and E. Gibson (1982, 1987, 1991a., 1991b) theory of perceptual learning offered a cue to understand the kind of perception that the above mentioned studies were referring to. Basically, perception includes affordances, or what the environment offers the individual for his or her appropriate interaction with it. In turn, these affordances guide and prompt the individual to act in the environment by offering him or her opportunities for action. That is why affordances have been called opportunities for action.

We have seen how the contributions that school theoretically should offer to adolescent development may instead become a source of confusion and loss of affordances. Adults, other peers, and the whole society have an idea of school, and its affordances, which is transmitted to the adolescent student. This indirect perception should guide the student’s attention toward those aspects of the environment that are meaningful, i.e., those which offer opportunities to act. This action, in turn, is projected toward the society since school is mostly an instance of development and socialization. When the indirect perception instead of leading the students to the perception of affordances, misguides them toward other non-appropriate affordances or confuses them by showing affordances which are not there, a negative perception occurs and the affordances are lost.
Previous chapters have explained the complexity of the environment which is perceived, the developmental situation of the adolescent perceiver, and the social character of school in its theoretical propositions and its concrete realization explain why the perception of school that puts the Hispanic adolescent at risk regardless of his academic potential is the result of a multiplicity of factors. To order them and offer some suggestions for research and intervention, I will review the levels of analysis used in this work.

Bandura's and Gibson's Contributions to the Model

Before doing that, let us take the analysis of the perceptual activity and turn back to the original proposed model based on Bandura's theory of self-efficacy to see how the theoretical underpinnings of the present study combine. The theory of self-efficacy emerged in the broader framework of the social cognitive theory proposed by Bandura in the 60's (Grusec, 1992). The social cognitive theory was aimed at giving an explanation as how "children and adults operate cognitively in their social experiences and... how these cognitive operations then come to influence their behavior and development" (p.781). The processes of modeling and imitation became central in Bandura's theory: the observer's behavior is influenced by the response consequences experienced by a model, whether inhibiting or enhancing such behavior. The information coming from models, together with that offered by others' verbal discussions and own experiences, contribute to form in the individual a representation of the behavior and the environment in which such
behavior can be accomplished. The perception of self-efficacy has to be seen in this framework.

Figure 3 shows Bandura's model of self-efficacy in an enlarged fashion. The triad person-behavior-outcome is still present but other elements have been added. Bandura (1977, 1987) proposed four sources of information that create a sense of self-efficacy in the individual: history of self-achievement in a particular domain, vicarious experience (or the observation of what others are able to accomplish), verbal persuasion of others to adopt a particular behavior, and consideration of the emotional arousal that a particular task produces (Bandura, 1977; Grusec, 1992). These four sources of information contribute to develop, in the individual, a belief about his own abilities and characteristics in dealing with a particular behavior in a particular situation or domain. These are shown in figure 3 as "contributors" to self-efficacy expectations. The knowledge that such behavior, if it is adopted, will produce a particular outcome is taken for granted and underlies the proposed model of self-efficacy. This underlying knowledge is the "outcome expectations" in the figure.

In chapter one I suggested that both "expectations" were linked through the perceptual activity as it has been understood here. Proprio-perception and perception of affordances of the environment were simultaneous results of perception. According to this suggestion then, the four sources of efficacy information were embedded in the perceptual activity and brought about not only by the efficacy expectations, as Bandura proposed, but also by the outcome expectations. Figure 4 shows the new arrangement according to the model proposed in the present study.
Figure 3. Bandura's model of behavioral process to explain self-efficacy (Based on Bandura, 1977). This model has been applied to different aspects of human behavior. Outcome expectations and self-efficacy expectations are differentiated. Whereas outcome expectations link behavior with the outcome, self-efficacy expectations link the individual with behavior. This is the focus of Bandura: To assume a particular behavior that leads the individual to a particular outcome, the belief in the possibilities of adopting such behavior and persist on it has to be present. Bandura's discussion constitutes one of the theoretical underpinnings for the model of perception of school.
Figure 4. Model of perception of school and its relation with "staying in school". The model uses the Bandura's scheme to explain self-efficacy, and the theory of perception of affordances proposed by the Gibsons. In Bandura's idea, "self-efficacy expectations" and "outcome expectations" were differentiated and related to behavior in a sequential way (See figure 1). Here both are related through "perception of school" which has its own internal dynamic (See figure 2).
Before moving from Bandura's model of self-efficacy, a point has to be highlighted. The importance of such model for the present study resides in the division that Bandura suggested between "outcome expectations" and "efficacy expectations" in any psychological procedure (Bandura, 1977). To believe that an action will produce a particular outcome does not imply the belief that one can perform such action. Both beliefs entertain different psychological attitudes and the failure in either of them may impede the individual from adopting a behavior. While Bandura, focused on the belief of self-efficacy, in the present study, I focus on the belief in outcome expectations. Bandura (1977) noted that

[efficacy] expectation alone will not produce desired performance if the component capabilities are lacking. Moreover, there are many things that people can do with certainty of success that they do not perform because they have no incentives to do so. (Bandura, 1977, p.194. Italics added).

Those incentives from the perspective undertaken here are linked to the outcome expectations. The initiation and persistence of a particular behavior may be inhibited by the lack of expectations in personal mastery, but also by the absence of the "judgement of the likely consequence such behavior will produce" (Bandura, 1986, p.391).

Bandura (1986) stated the distinction between outcome and act: "An outcome is the consequence of an act, not the act itself" (p.391). However, the act is basic to produce the outcome inasmuch as the act and the outcome are related. In the discussion in previous chapters I have talked about leading activities and cultural-developmental tasks. The activities are to accomplish the tasks or they are not undertaken. But in order to undertake the activities, I have to perceive the opportunity to make them effective, (see chapter III),
given the fact that I have a belief in my own abilities and characteristics to perform that act.

In expanding the function of school and not circumscribing it to the academic performance, I may have opened other areas in which the high- and average-achieving Hispanic students may not have the skills to carry out the actions which lead to accomplishing their cultural-developmental task. However, self-efficacy "is not concerned with the skills one has but with the judgement of what one can do with whatever skills one possesses" (Bandura, 1986, p.391), and it is possible that the sense of self-efficacy acquired in one domain may be extended to other domains. Given the emphasis placed on academic achievement in school, the subordination of other activities to the school-oriented ones, and the connection that exists between school academic achievement and future success, it is possible to infer that average and high-achievers may extend their self-efficacy to those other areas of development they focus on. On the other hand, there is a methodological implication. Even if the average and high-achievers did not have a sense of self-efficacy in other areas, their situation regarding academics offers an advantage for the proposed model. I am assuming that at least there is one area in which these students have a good sense of self-confidence. In the case of low achievers, no area can be inferred having this characteristic. Nevertheless, the point raised is worthy of research and its implications will be addressed later.
The Level of Intervention

Figure 5 shows the three individual levels of analysis used in this study. The first one depicts the cultural-developmental task in which the adolescent is involved. Self-knowledge, realignment of significant relationships, and evaluation of social responsibilities and possibilities are leading activities in the task of searching for an identity. This is the most general level used here. School is only one of the immediate settings in which the adolescent interacts. Though the elements of the perceptual activity can be found in other settings, in the present study they have been taken in the context of the school environment. The second level is that of the perceptual activity. The elements of this activity, proprio-perception, perception of significant relationships, school-related goal settings and other's perception of school, are related to the leading activities of the first level as it has been mentioned before. They are the explicitation of these activities in terms of perception as they occur in school. They also depict the part of the perceptual activity dependent on or related to the perceiver. The third level is not embedded in the second but it is a complement of this. This level depicts the part of the perceptual activity determined by the environment, the school in this case. The four contributions proposed by Hamilton have been used to group the aspects of the school that can be meaningful for the adolescent student.

The suggestions for research and intervention that follows are discussed at the third level just explained. It is by making the school an environment in which the individual can perceive the appropriate affordances that the risk of dropping out of school in achievers
Figure 5. Levels of analysis for perception of school: The way of focusing the individual determines the levels of analysis. In the first level the individual is the adolescent in search of an identity. In the second level the individual is the adolescent as perceiver. The third level considers the adolescent perceiver in school.
and non-achievers can be reduced. This does not mean that there cannot be an intervention in the ability of perceiving affordances in the individual. But the main way of intervention will be to offer the individual an increasing experience, the opportunity to perceive affordances (E. Gibson, 1987). In the scribble experiment recalled by Pick Jr. (1992), the improvement in perception that allowed the observer to distinguish different scribbles was neither learned nor reinforced. It was just the result of examining and studying the stimuli: it was a function of experience. The result of the experiment can be applied in the case of perception of school. The more limited and constrained the experience, whether by discourse or actual possibilities, the less opportunity to improve the perception. As I said before, regarding the complexity of social realities, there is need of an indicative language to direct the attention toward the appropriate affordances (chapter II). Hence, some kind of intervention is possible at the level of the student. But, since indirect perception is aimed at promoting the direct perception of the affordances by the individual, it is by strengthening the students' potential for perceiving the affordances that any kind of indicative language can be effective.

Weissberg, Caplan & Harwood (1991) assert that a school-based program to be more effective should not focus independently on the child or the environment but it should "simultaneously educate the child and instill positive changes in the environment." (p.836) This is what they called ecologically-oriented programs. These programs "emphasize not only the teaching of skills, but also the creation of meaningful real-life opportunities to use skills and the establishments of structures to provide reinforcement for effective skill application" (p.836). Most of the works I will cite below can fall under
this consideration. The intervention to improve perception of affordances of the different components of the school environment necessarily implies the modification of the environment to enhance in the individual a better perception of the school.

**Some Lines for Research and Intervention.**

Hamilton's (1984) proposal of the four contributions of school to adolescent development will be a guide to present the suggestions.

**Teaching Knowledge and Skills in School**

The analysis of this contribution in chapter IV depicted some sources of risk for Hispanic students: lack of achievement-related values at school, a "shopping mall" curriculum without an appropriate orientation and/or directiveness to the students, the emphasis on an attractive and attainable but not challenging curriculum and teaching method, and the lack of integration of students' lives and out-of-school problems in the classroom and curriculum. Each of these aspects constitutes a suggestion for intervention.

Hanson & Ginsburg (1988) found that when students, their parents, and peers believe in values that stress responsibility, students have a better chance of being successful at school. The effect of values was larger than the effect of socioeconomic status. The sense of responsibility in high-achievers may change during adolescence with the questioning of values learned in childhood. Therefore, these values have to be stressed in a different way by projecting the effects of responsible behavior in school and the community. The sense of family and community present in Hispanics (Henderson &
Dweck, 1993) may be an "inducement" to this. However, it is necessary to link the accomplishment of school tasks and the learning of academic skills with the exercise of the responsibility in areas other than classroom tasks. A project of intervention with students' team learning, as the SWAS promoted by the Kansas City School District (1986) can be an example: students learn cooperatively by helping each other in their homework and assigning those more skillful to help those who are not. Programs of this type affect the student's interest and encourage cooperation to increase vocational aspirations and create better social skills (Bartz, 1983).

To help students handle the more diversified and extensive curricula existing in junior or high school can be another way of enhancing the perception of school. More directiveness and orientation of students dealing with a new kind of curriculum environment have been found effective in preventing school failure (Bryk & Thum, 1989). Kramer (1990) found that both at-risk and successful students feel responsible for their academic performance, but at-risk students were unsure of how to take responsibility for their learning. An excessive and not well understood respect for adolescent freedom, together with the more concrete reality of large number of students to attend, have left students without direction. Adolescents want to increase their opportunity of decision making (Eccles, Lord & Midgley, 1991; Eccles et al., 1993) but they also need some direction in their decisions. An appropriate orientation may help students deal with the curriculum and classes, and also improve the social climate by reinforcing teacher-student relationships.
Related to the difficulties for handling the curriculum appropriately are the characteristics of the curriculum itself, and the level of exigency and challenge in classroom work. Eccles et al. (1993) pointed out that classwork during junior high school requires lower level cognitive skills than does classwork at the elementary level, and that deters a student's motivation. On the other hand, Bartz (1983) found that by placing challenging goals in desegregated school environment and stressing students' strengths the achievement motivation improves and so does the perception of the school environment. Enwistle (1993) pointed out that teachers in desegregated schools, by pacing their teaching at a higher level, motivate and stimulate students from minority groups. Although structuring a more challenging and motivating curriculum is a matter of educative policies, teachers have the opportunity to make the classroom environment challenging enough to meet the adolescent's need for growth (Ames, 1992; Enwistle, 1993).

Another method of intervention in the area of imparting knowledge is to link curriculum and instruction with students' out-of-school experiences. Abi-Nader (1990) designed a program aimed at promoting post-secondary educational aspirations among Hispanic students. The program focused on teacher strategies, but also on integrating the instruction in academic skills with the cultural realities of students' lives.

Teaching How to Behave in Formal Organizations

Some suggestions have been already made in previous chapters. Teacher-student relationship, valuative standards and school adjustment were three areas that I associated with this contribution. Gama (1991) in a study on students from low income families
proposed changes in teacher training curriculum and support of in-service teacher education. This improved the teacher's perception regarding the students and indirectly favored the self-esteem and positive attitudes in the latter. Weinstein et al. (1991) described a project to prevent school failure based on a teacher-researcher collaboration. As results, there were changes in the participant teachers' attitudes and actions toward their colleagues, their role as teachers, and their students. Changes about colleagues and in role expectations, accounted by Weinstein et al. (1991), "strengthened teachers' capacity to bring changes to their classrooms" (p.348) and promoted a more supportive environment for the students. Both teacher motivation and student motivation are related, the goals that affect them are implicit in the goal structure of the classroom and in the teacher's belief system (Ames & Ames, 1984). Thus, an intervention directed to improve the latter variables may have an effect on the students' perception and motivation. The interaction of teacher and student factors with classroom structural variables is an area in need of more study.

The main problem when addressing the area of valuative standards was the effect that teachers' low expectations for their students had on undermining the motivation and performance of principally low achieving students (Eccles & Wigfield, 1985. Cited in Eccles et al., 1993). I mentioned how teachers dealing with students from minorities may be biased in their expectations, and either tend to lower the teaching level or to provide not-fondly-based evaluations of their students (Natriello & Dornbusch, 1984). The interventions mentioned above (Gama, 1991; Weinstein et al., 1991) are also an example for intervention in this area.
The difficulty of school adjustment was related to characteristics of the school environment that did not promote in the adolescent a sense of comfort and security. Size and organization of school were mentioned as some of those characteristics. The work of Felner, Grinter & Primavera (1982) was a major attempt to modify the environment to prevent school failure during transition periods. They tried to increase the level of social support and to reduce the degree of flux and complexity in the school setting. Students involved in the Transition Project were more successful in coping with the transition to high school than those who were not involved. The indicators of this success were better attendance records and grade point averages. The "Project students" (Those who participated in the program) also perceived the school environment as having greater clarity of expectations and organizational structure and higher levels of teacher support and involvement. In general, students who participated in the project had more positive attitudes than the control students toward school environment and school personnel, as well as their personal and academic adjustment. Felner & Adan (1988) evaluated the enduring effects of the participation in the Transition project. "Project students" showed "fewer decreases in academic performance or indices of positive mental health and fewer increases on measures of emotional and behavioral dysfunction and difficulties compared to their respective controls" (p.118). More recently, Felner et al. (1993) indicated that in addition to the mentioned results, the project also produced in the students more positive experiences in school environment dimensions and better adjustment outcomes across academic, socio-emotional, and behavioral domains. Although Felner et al. (1993) have asserted that the Project is applicable to only some kind of schools, these studies open the
possibility of intervening in the students' perception of school by modifying some aspects of the school environment.

The fact that academically talented minority students seem to express higher degrees of preference for various services and programs than White students (Keer, Colangelo, Maxey, & Christensen, 1992), together with a higher value for education (Han, 1987) favors the application of programs of intervention at this level. The assertions of Kramer (1990) that school experiences of at-risk and successful students are mostly a result of their perceptions of relationships with teachers and that both kinds of students expressed the same willingness to take responsibility for their learning indicate that the school contribution at this level may be more a matter of educational policies than students' motivation to get some help. The quality of primary, secondary, and vocational education is especially significant for immigrant and minority youth (Reubens, 1983), and deficiencies in providing a suitable environment can result in increasing school failure and unsuccess in life. Morante (1990) found, for example, that high risk Hispanic students have high self-esteem and know that success comes from setting goals and working, but they were not receiving counseling services to address appropriately their emotional and social needs.

Conveying a Common Culture

The area of the third contribution, conveying a common culture, and their effect on Hispanic students perception demands major research in many aspects. In general, the role of race and ethnicity, racial and ethnic discrimination, and minority status in
adolescent development have received too much neglect from researchers (Jessor, 1993). Regarding school and its contribution some questions have to be answered: how much and in what way is acculturation related to a better adaptation to school? How much of the positive findings related to increased acculturation and modernization come from school efforts to convey a common culture? What are the negative effects of acculturation, if not for school adjustment, for community adjustment and perspective of the future in the students?.

Gil, Vega & Dimas (1994) identified the acculturation strains in Hispanic adolescent boys. Language conflict, acculturation conflict, perceived discrimination, perception of closed society and perceived acculturation gaps are variables that may have an effect on one's perception of school. If acculturation itself is perceived as not providing opportunities for action, the effect will be of confusion or distraction from the proper affordances. Some of the impact that bilingual education and modernization of values have upon Hispanic students was addressed in the previous chapter and went in the same direction.

Most of the intervention in this area has been oriented toward pre-school or early school levels. It has been broadly studied that once the individual reaches the early adolescent years, the learning of a second language becomes difficult and is never completely accomplished (Owens, 1988). Similarly, to provide support in childhood for a rapid adaptation to school systems and the predominant culture has been found to be more effective. In both cases, the development of cognitive capacities and abilities, as providing more resources and strategies to the individual, also place some constraints on
the cultural and linguistic versatility. Therefore, intervention with adolescents has to focus on helping them cope with the difficulties that emanated from cultural conflicts. The main target population may have to be new immigrants or the children of new immigrants struggling for adaptation to the new circumstances.

Regarding the learning of English as a second language, there is a controversy over whether the first languages should be maintained or allowed to disappear. Ramirez (1986) made an evaluation with early adolescents using the linguistic developmental interdependence hypothesis that suggests that second language development relies strongly on the first language proficiency. His results support such hypothesis and lead Ramirez (1986) to suggest that Hispanics should organize their own ethnic mother tongue schools in order to support the vernacular and acquire a further proficiency in English. The relationship between proficiency in English and perception of the mainstream culture remains a point for further research.

In regard to acculturation and cultural conflict, the role of the Hispanic community, the neighborhood and the family appear to be shifting. Rosales-Kufring (1989), appeals for a holistic approach for intervention that addresses the "current inequities in the environment" of the students. Rosales-Kufring's ethnographic work stated that the school success of the Mexican-origin students is an interactively determined phenomenon dependent on the combined cooperation and involvement of family, school and barrio. This is a finding repeatedly confirmed, but programs of intervention in education have just started focusing on the interaction among these settings (Jessor, 1992). The program suggested by Abi-Nader (1990) was aimed at creating a vision of future and redefine the
image of self in Hispanic students together in the context of building a supportive community. Particularly, the PLAN (Programa Latinos Adelantaran de Nuevo), designed by Aby-Nader, attempted to recreate among teachers and students some of the traits that characterize a family structure: acceptance, mutual support, and self-preservation. Adamek (1984), above mentioned, is another example of this kind of intervention.

Offering Opportunities for Peer Interaction

The fourth area of contribution, opportunities for peer interaction, can offer opportunities to integrate some of the above mentioned lines of intervention. I made reference to cooperative learning as a way to prompt students' collaborations and a better perception of peer relationships simultaneously. Morante (1990) suggested a program that, instead of focusing on and putting high-risk students in separate programs, would incorporate peers who would be a positive influence and could relate to the adolescent culture. Both, high- and low-risk students would benefit from this program. Weinstein et al. (1991) included in their program of intervention some practices leading to a more motivated and successful learning among the students. The practices more related to peers intervention were: grouping for instruction in heterogeneous groups; interest-based and flexible groups; students' responsibility structures with a task-mastery focus; more varied performance opportunities recognizing multiple abilities; cooperative learning and conflict management strategies; and student leadership opportunities. The results reported new enthusiasm for learning, a new responsiveness to the learning of their peers, and a pride about and an identification with school.
The way that multiple ethnicity may influence cooperative learning, and more generally peer group relations, is a question for research. The adolescent from minority groups, in particular, the immigrant, turns increasingly to peers for support and guidance. In a process of adaptation to the environment, peers may also play a role in furthering acculturation (De Vos, 1980). Mixed work groups, in which adolescents from different ethnicities collaborate together can enhance the sense of integration when the majority's attitude does not impede this kind of interaction. The sense of friendship that they bring the work group, as happens with a sport team, can prevent students from engaging in gangs and delinquent groups. I mentioned before that gangs may be a substitute for some adolescents' lack of social support and with feelings of isolation (Spencer & Dornbusch, 1993).

There is an increasing awareness of the necessity to address a problem from an ecological point of view. This approach requires not only considering the relationship between the focused setting and others, but also to include the effects of the interaction in the research in question (Bronfenbrenner, 1986). The programs of interventions are to be multi-component programs that involve home, school, neighborhood, parents, teachers, peers and the community to ensure lasting social, psychological and health benefits (Weissberg, Caplan and Harwood, 1991). One of the main reasons for the need for a multi-component program is the co-occurrence of many high-risk behaviors and conditions and the many influences that may promote or deter a particular behavior (Kazdin, 1993). The way that ethnicity influences the composition, direction and intensity of such interaction has to be taken into account, as well as the variation of this interaction across
periods of time. The way that a family and school are theoretically and practically related among African-Americans may not be the same among Hispanics, for example. These interactions may change when a person moves from one stage of development to another. Although this framework is enormously complex in design it is necessary. The success of any program seems to reside in maximizing the adaptive fit between persons and environment. "This requires sensitivity to the personal history, cultural context, and life stage of the person." (Coie et al., 1993)

**Research Using Perception of Affordances**

The four areas of the contributions proposed by Hamilton (1984) have helped me to survey some works that in one way or another have addressed perception of school. Those studies, however, remain barely related to the conceptualization of perception that has been the core of the present work. Affordances, indirect perception, proprio-perception and interaction individual-environment have adopted particular connotations in previous chapters that the cited researches have not considered.

On the other hand, reviewing the kind of work more related to the theoretical underpinnings used here, they have focused mostly in the analysis of perceptual learning in young children and infants (E. Gibson, 1982, 1987, 1991a, 1991b; Pick, 1992). The reason for this concentration is the very concept of Learning that E. Gibson proposed:

> Learning begins long before any language is available, and before much of any action is. Here is the real role for perceptual learning, and what a lot must go on in just the months before a child can navigate on its own or speak a single word. (E. Gibson, 1991a, p.608)
In this sense, the work of E. Gibson and colleagues, as the Bandura's before, constitutes rather a framework in which the discussion and research on perception of school have to be done. So far, I am not aware of experiments dealing with perceiving this social affordances with older children, adolescents or adults. The work of Reed (1993) in using the concept of affordances to elaborate a conceptual framework for psychology is a breakthrough in this direction. Based on the idea that "cognitive development . . . involves the child's increasing awareness of intention-generated limits, the ability to work within these limits and to accomplish goals under these constraints" (p.65), Reed focused on the process of growing in selecting specific affordances. The field of action that Reeds proposed is that of real-world tasks, and the reference to the social contour of exploratory and performatory behavior is constant. The data source for his theory, however, came from observations with traumatically brain damaged patients who were able, even in their disordered action, to understand certain basic affordances.

In the educational field, there have been few attempts to apply this theory of perception of affordances, and they are mostly on the theoretical side. Sherman (1990) proposed some ecological perspectives to cooperative pedagogy based on Gibson's interpretation. He suggested that behavior settings, such as school, may be conceptualized as affordances which more or less support appropriate and socially competent action of children. This point coincides with most of the discourse of this work. Later, however, other theories came to help Sherman elaborate further dimensions of social affordances. It may be, as Miller (1993) said, that Gibson's theory had only the modest goal of
explaining one area of behavior, that of perceptual learning. Future advances in the study of other dimensions of perception of school will require more theoretical elaboration.
CHAPTER VII
CONCLUSION

The goals of the present work were to examine the variables that contribute to form a positive perception, and to design a model of perception of the school useful for educational intervention with high-achieving Hispanic students. Based on suggestions from Reyes & Jason (1993) and Reyes (1993), and the findings of Delgado-Gracian (1986, 1988), I chose perception as the variable for a model which integrates the different factors contributing to the school failure of students who had previously done well in school.

Although there is little literature available about high- and average-achieving Hispanics, numerous studies point to positive perception of and/or satisfaction with the school as a key factor in determining whether "good" Hispanic students stay in school or not.

In focusing upon perception, I have referred to the theory of perception proposed by J.J. Gibson (1979) and E. Gibson (1982, 1983, 1987, 1991a, 1991b). Their definition of perception - "awareness of the affordances of the environment" - and their insistence upon the relationship of the individual-in-an-environment appeared a suitable starting point for describing the hypothesized endeavor. At the same time, however, their theory also posed several questions regarding the individual's perception of a school. Neither does
"school" have a univocal definition, nor does perception of the affordances of a social institution. This perception cannot be equated with the perception of affordances in an "physical" environment, as researched by E. Gibson and colleagues. Furthermore, the perception of school that I attempt to define is in relation to staying in school and completing school in order to achieve delayed, future goals. A "teleological" component has to be included in the analysis.

Bandura’s model of self-efficacy (1977, 1986) appeared relevant for providing a structure to the model and giving it the orientation to the future implicit in "staying in school". In particular, its contribution appears in the differentiation between self-efficacy expectations and outcome expectations. Although the model ended by putting them together under a new formulation, the previous distinction allowed me to add a particular focus to the model. A sense of self-efficacy, I concluded, is dependent on one's expectation of the outcome, on the belief that a particular performance will have a predictable and beneficial effect for the performer. A natural belief that he will succeed is what allows a student to make sense of his actions and contributes significantly to his performance.

The model depicted in the previous chapter is based on the concept of affordances. This concept provides the model's dynamic: The perceiver picks up the opportunities for action, and by doing this, becomes engaged in the environment in a meaningful relation. This, in turn, allows the perceiver to differentiate an increasingly larger horizon of the affordances of the environment. It is in this back-and-forth movement where the individual develops and makes sense of the world. Affordances do not provide all the necessary
information for an individual's self-realization. This is especially the case when dealing with a social environment. Yet affordances offer the most basic information, that which is for the individual's survival (J.J. Gibson, 1979; Reed, 1988).

For a Hispanic adolescent in socioeconomic difficulties, who must pass through periods of transition, survival may be as simple as a word which makes sense to him or her. Immediate settings in which the adolescent interacts have to offer perceived opportunities for action. The actions, of course, vary according to the adolescent's needs and interests; yet these needs and interests are marked by the adolescent's searching for an identity (Klaczynki, 1990, Hoare, 1991). This identity is not realized in the abstract. It grows in a social context in relation with others. School is one of the more significant situations of social interaction. When the social context or the significant others blur the possibilities of becoming a responsible person, the path to negative perceptions of the environment and its consequences is easily trod.

I advanced in the introduction that a model which captures this dynamic needs a graphic display for understanding. How does one picture the possibilities of intervention in this case? Jessor (1993) presents a new paradigm for research about adolescents that has been recently emerging in developmental psychology. He calls it a developmental behavioral science because "it reaches beyond the traditional boundaries of psychology to encompass the concerns that neighboring disciplines have with the social environment of human action" (p.117. Italics added). The model presented here may fall into this discipline.
The model has to do with "inner experience and meaning as well as with overt behavior." It is attentive to "the socially organized context and to the individuality of the person." It is an attempt to understand "the process of development and change in both the person and the social setting." (Jessor, 1993, p.118) The proposed model seeks to schematize an activity that is only given in interactive communication with an environment constituted by multiple components, among which are other individuals. That is why, in concordance with Jessor's postulates, it remains complex and its application problematic.

The perception of school that I have been dealing with in this study is associated with meaning, language, communication, intention, action, performance, adjustment, and response to the environment. The direct perception, the detection of affordances by increasing differentiation, plays a major role in the perceptual activity, as do indirect perception and goal setting. Each of these elements are interlinked.

Despite this complexity, several research trends emerge. Studies which match the developmental needs of the adolescent with the goals of the school seem to be one way of implementing this model (Eccles et al., 1993; Zaslow & Takanishi, 1993). By looking at adaptation and adjustment over time to a school environment from the perspective of the student and by confronting other's perceptions of it, it is possible to relate some of the variables indicated.

Another way is looking at the effect of the Hispanic community on perception of school. In the case of Hispanic students, it is important to know how they perceive and how they relate their perception of school with the larger community's perception. It is important to examine the influence of community values, not only regarding the post-
school situation but also as to the way students face the difficulties at school. The ethnographic work of Delgado-Gracian (1988) is an example of this, but the sample has to be increased in number and composition. It is worthwhile to note that Hispanic youths constitute a variety of cultural and ethnic groups, races, and histories. Each must be studied in combination with other factors such as SES and time of residence in the country.

Change in perception over time has been inferred in this study from the changes in cognitive and psychological changes. A longitudinal study with in-deep interviews may draw information about how the student perceives significant relationships with teachers, peers and administration in school. In particular, issues regarding racial or ethnic discrimination can only be tapped in a more open and personalized approach.

The proposed model for perception of school is only one attempt to analyze the cognitive process that leads to school failure. Perception is, however, a broad term. The perception of opportunities for action, the use of them, and the construction of an environment in which the individual feels "realized" is a challenge for everyone. While awareness of the limits is important, youths from minorities still have to deal with a educational system struggling with major, multi-cultural integration. They may lose the affordances in this struggle. But society may also lose the affordances that Hispanic people can offer.
APPENDIX
Table 3.-- High School Dropout Rates, 1988-1990

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Total, 14 to 34 years</th>
<th>14 and 15 years</th>
<th>16 and 17 years</th>
<th>18 and 19 years</th>
<th>20 and 21 years</th>
<th>22 to 24 years</th>
<th>25 to 29 years</th>
<th>30 to 34 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 1988</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>All races</td>
<td>12.2</td>
<td>1.1</td>
<td>6.7</td>
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<td>14.6</td>
<td>14.6</td>
<td>13.9</td>
<td>12.8</td>
</tr>
<tr>
<td>Hispanic origin</td>
<td>34.9</td>
<td>1.1</td>
<td>19.7</td>
<td>31.2</td>
<td>43.2</td>
<td>42.6</td>
<td>40.8</td>
<td>39.5</td>
</tr>
<tr>
<td>October 1989</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All races</td>
<td>12.0</td>
<td>1.1</td>
<td>5.9</td>
<td>14.0</td>
<td>16.0</td>
<td>13.7</td>
<td>13.2</td>
<td>13.1</td>
</tr>
<tr>
<td>Hispanic origin</td>
<td>33.9</td>
<td>3.6</td>
<td>12.5</td>
<td>27.9</td>
<td>41.2</td>
<td>41.1</td>
<td>40.1</td>
<td>40.2</td>
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<tr>
<td>October 1990</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>All races</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic origin</td>
<td>34.3</td>
<td>1.1</td>
<td>12.9</td>
<td>34.2</td>
<td>31.6</td>
<td>42.8</td>
<td>41.7</td>
<td>42.4</td>
</tr>
</tbody>
</table>

1Based on Reddy (Ed.), 1993, p.330. Dropouts are persons who are not enrolled in school and who are not high school graduates. Data for all races in 1990 was incomplete in the original source.
Table 4.-- Highest Grade Completed by Status Dropouts, Ages 16 to 24 years, October 1988

<table>
<thead>
<tr>
<th>Age and Ethnicity</th>
<th>Status dropout rate</th>
<th>Highest grade completed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>6 or less</td>
</tr>
<tr>
<td>16 and over</td>
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<td></td>
</tr>
<tr>
<td>Total</td>
<td>21.3</td>
<td>20.9</td>
</tr>
<tr>
<td>Hispanic</td>
<td>46.2</td>
<td>48.4</td>
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<tr>
<td>NonHispanic</td>
<td>19.3</td>
<td>15.7</td>
</tr>
<tr>
<td>16 to 24 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>12.9</td>
<td>12.4</td>
</tr>
<tr>
<td>Hispanic</td>
<td>35.8</td>
<td>31.4</td>
</tr>
<tr>
<td>NonHispanic</td>
<td>10.3</td>
<td>5.1</td>
</tr>
</tbody>
</table>

1 Based on Schick & Schick (Eds.), 1991, p.91
Table 5.-- Years of School Completed, Hispanics, Ages 15 to 24 years, March 1988

<table>
<thead>
<tr>
<th>Age</th>
<th>Total In thousands</th>
<th>%</th>
<th>Elementary School</th>
<th>High School</th>
<th>College</th>
<th>Median School years completed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>0 to 4 years</td>
<td>5 to 7 years</td>
<td>8 years</td>
<td>1 to 3 years</td>
</tr>
<tr>
<td>TOTAL, 15 years and over</td>
<td>13 605</td>
<td>100</td>
<td>9.5</td>
<td>13.8</td>
<td>7.5</td>
<td>20.4</td>
</tr>
<tr>
<td>TOTAL, 15 to 24 years</td>
<td>3 666</td>
<td>100</td>
<td>2.1</td>
<td>8.8</td>
<td>9.3</td>
<td>37.2</td>
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<tr>
<td>15 to 19 years</td>
<td>1 691</td>
<td>100</td>
<td>0.7</td>
<td>8.1</td>
<td>14.8</td>
<td>57.6</td>
</tr>
<tr>
<td>20 to 24 years</td>
<td>1 975</td>
<td>100</td>
<td>3.2</td>
<td>9.3</td>
<td>4.5</td>
<td>19.7</td>
</tr>
</tbody>
</table>

Table 6.—School Enrollment Rates of Hispanics 7 to 19 Years Old, 1985 and 1990

<table>
<thead>
<tr>
<th>Year and age</th>
<th>All races</th>
<th>Hispanic origin</th>
<th>White, non-Hispanic</th>
<th>Black, non-Hispanic</th>
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</thead>
<tbody>
<tr>
<td><strong>1985</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Total, 3 to 34 years</td>
<td>48.3</td>
<td>47.7</td>
<td>47.8</td>
<td>50.8</td>
</tr>
<tr>
<td>7 to 9 years</td>
<td>99.1</td>
<td>98.4</td>
<td>99.4</td>
<td>98.6</td>
</tr>
<tr>
<td>10 to 13 years</td>
<td>99.3</td>
<td>99.4</td>
<td>99.3</td>
<td>99.5</td>
</tr>
<tr>
<td>14 and 15 years</td>
<td>98.1</td>
<td>96.1</td>
<td>98.3</td>
<td>98.1</td>
</tr>
<tr>
<td>16 and 17 years</td>
<td>91.7</td>
<td>84.5</td>
<td>92.5</td>
<td>91.8</td>
</tr>
<tr>
<td>18 and 19 years</td>
<td>51.6</td>
<td>41.8</td>
<td>53.7</td>
<td>43.5</td>
</tr>
<tr>
<td><strong>1990</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total, 3 to 34 years</td>
<td>50.2</td>
<td>47.2</td>
<td>49.8</td>
<td>52.2</td>
</tr>
<tr>
<td>7 to 9 years</td>
<td>99.7</td>
<td>94.9</td>
<td>96.7</td>
<td>96.5</td>
</tr>
<tr>
<td>10 to 13 years</td>
<td>99.6</td>
<td>99.1</td>
<td>99.7</td>
<td>99.8</td>
</tr>
<tr>
<td>14 and 15 years</td>
<td>99.0</td>
<td>99.0</td>
<td>99.0</td>
<td>99.4</td>
</tr>
<tr>
<td>16 and 17 years</td>
<td>92.5</td>
<td>85.4</td>
<td>93.5</td>
<td>91.7</td>
</tr>
<tr>
<td>18 and 19 years</td>
<td>57.2</td>
<td>44.0</td>
<td>59.1</td>
<td>55.0</td>
</tr>
</tbody>
</table>

1Based on M.A. Reddy (Ed.), 1993, Statistical Record of Hispanic Americans. Rates are shown in percent.
<table>
<thead>
<tr>
<th>Changes in</th>
<th>Manifested in</th>
<th>Early Adolescence</th>
<th>Late Adolescence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic processing capacity or efficiency</td>
<td>Cognitive Bases</td>
<td>Increasing capacity of allocating attention</td>
<td>Increased skills at directing available resources</td>
</tr>
<tr>
<td></td>
<td>Brain maturation</td>
<td>Developing strategy</td>
<td>Better strategy</td>
</tr>
<tr>
<td>Knowledge base</td>
<td>Knowledge structures</td>
<td>Brain growth spurts</td>
<td>Relative development of left and right cerebral hemisphere</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Less concrete representation</td>
<td>Abstract representation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Thinking limits to a single issue</td>
<td>Thinking multidimensionally</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Absolute in the conception of knowledge</td>
<td>Relative in the conception of knowledge</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Limited capacity of self-reflection</td>
<td>Self-reflective and self-aware</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Limited automatization of basic processes</td>
<td>Broad automatization of basic processes</td>
</tr>
</tbody>
</table>

\(^1\text{Based on Keating (1993).}\)
### Table 7.-- Continued

<table>
<thead>
<tr>
<th>Changes in</th>
<th>Manifested in</th>
<th>Early Adolescence</th>
<th>Late Adolescence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Knowledge base</strong></td>
<td>Knowledge structures</td>
<td>Limited coordination of theory with evidence</td>
<td>Ability to separate theory and evidence</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Starting development of specialized abilities</td>
<td>Broader development of specialized abilities</td>
</tr>
<tr>
<td><strong>Content knowledge</strong></td>
<td>Misconception of the world</td>
<td>More realistic conception of the world</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Starting changes in perspective-taking abilities</td>
<td>Mutual-third person perspective or system thinking in perspective taking abilities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Starting changes in person-perception (Less external or physical)</td>
<td>More internal-psychological person-perception</td>
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</tr>
<tr>
<td></td>
<td>Changes in moral reasoning</td>
<td>Toward a conventional level in moral reasoning</td>
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<tr>
<td></td>
<td>Limited coordination of social and personal experiences</td>
<td>Coordination and integration of social and personal experiences</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Starting changes in decision-making</td>
<td>Better strategies in decision-making</td>
<td></td>
</tr>
<tr>
<td>Changes in</td>
<td>Manifested in</td>
<td>Early Adolescence</td>
<td>Late Adolescence</td>
</tr>
<tr>
<td>----------------------------</td>
<td>----------------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>------------------------------------------------------</td>
</tr>
<tr>
<td>Knowledge base</td>
<td>Content knowledge</td>
<td>Changes in strategies for coping with stress</td>
<td>Better strategies for coping with stress</td>
</tr>
<tr>
<td></td>
<td>Strategic knowledge</td>
<td>Limited awareness of consequences of own's decisions</td>
<td>Greater awareness and reflectivity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Limited ability to carry out planning activities in problem solving</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Starting recognition of variety of options in complex issues</td>
<td></td>
</tr>
<tr>
<td>Cognitive self-regulation</td>
<td>Meta-cognition</td>
<td>Starting ability for monitoring own's cognitive activity for consistency, accuracy, etc</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Formulation of goals</td>
<td></td>
</tr>
</tbody>
</table>
REFERENCES


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*Contemporary Educational Psychology, 13*, 323-330


Wozniak, R.H. (1993). Co-constructive metatheory for psychology: Implications for an analysis of families as specific social contexts for development. In R.H. Wozniak and
K.W. Fischer (Eds.), *Development in context: Acting and thinking in specific environments* (pp.77-92). Hillsdale, NJ: Lawrence Erlbaum Associates.


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Loyola University Chicago

The final copies have been examined by the director of the thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the thesis is now given final approval by the committee with reference to content and form.

The thesis is, therefore, accepted in partial fulfillment of the requirements for the degree of Master of Arts.

Chicago, December 1, 1994  
Carol Harding Ph.D.