

Affection and social behavior in teaching planning: the role of the consequences of behavior¹

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Abstract: Our goal in this paper is to reflect on the need for an integrated view of development of cognition and affection for academic planning. We explored, in particular, the role of consequences of student behavior, which is one of the major contributions to psychology from behavior analysis. The key issue for this integrated approach is to look at the student as an active subject, one that manipulates and transforms the surrounding environment at all times. The social relationships that are developed in this context involve interwoven behavioral units. Sometimes, individuals act over the environment, transforming it; sometimes they serve as critical aspects of the environment in which others act. Based on these considerations, this article points to the need of identifying relationships between individuals and their social environment, especially those relationships which can be described using the notion of positive social reinforcement (adding something). In this sense, social relationships should be planned based on the contributions from studies showing the role of the consequences of human behavior, especially social behavior. As a result, the text points out that the practical tool to deal with issues related to affection and cognition in teaching involves identifying and dealing with the social consequences of people's behavior. Criticism to the concept of reinforcement for the analysis of human behavior are opposed to the notion that requires dealing with the effects of the consequences, taking into account the complexity of human behavior in social contexts.

Keywords: behavior analysis, social behavior, affection, learning.

Further to being a theoretical issue, the discussion on affection in educational planning is a practical matter, which is especially important during the initial years of schooling. Teachers, parents and caregivers work towards the development of children's skills and sophisticated cognitive resources. Often, however, it goes beyond this: just as or more important than learning is enjoying what is being learned, who is teaching it and, mainly, with whom the process is being shared. The context of education, whether formal or not, is the basis for building motivation for learning and forming emotional bonds that last a lifetime. Good learning conditions result in

students feeling involved and personally satisfied whenever something that has been learned is applied. The opposite of this is learning by obligation, in a boring or compulsory manner, which often generates dissatisfaction, disaffection, apathy, withdrawal and not as uncommon as we would like, revolt and rebellion.

In the theoretical discourse and practices that psychologists have to offer to society, cognition and affection are not always jointly discussed. When separated, this discussion leaves the impression that cognition and affection are irreconcilable themes or that, at the very least, they require different treatments. Expressions like "cognitive dimension", as opposed to the expression "affective dimension", reinforce this idea and suggest that it is possible and even desirable to deal with the development of cognition separately from the development of affectivity. This apparent dichotomy is being reviewed in various theoretical contexts of Psychology. Some examples include: the recognition that attachment relationships between small children and their caregivers are important aspects for their social and emotional development (Bowlby, 1988; Dunst & Kassow, 2008); the recent explanations about the evolution of cooperation that highlight the importance of pro-social behavior (Bowles & Gintis, 2002; Zaki & Mitchell,

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2013); the influential cognitive approach that seeks to integrate intuition and deliberation in decision-making and judgment processes (Kahneman, 2003).

Our purpose in this essay is to address an additional contribution to this discussion: the role of the consequences of behavior, as has been discussed in the approach known as behavior analysis (for example, Skinner, 1953). It is our opinion that this contribution, along with recent developments in the analysis of social behavior (e.g., Guerin, 1994, 2016), can and should participate in the debate on the development of affection and cognition, as well as in the discussion on teaching and learning processes. It is not our intention to offer an exhaustive review of the literature, but rather to suggest reflections that can stimulate the debate based on contributions that are presented as representative of different lines of research in the field.

A key issue for this integrated vision of emotional and cognitive development is seeing developing children as active beings, who at all times manipulate and transform the environment surrounding them. Social relationships that develop in this context involve behavioral units that are interlocked (Andery, Micheletto, & Sérgio, 2005; Glenn, 1991, 2004): individuals at times act over the environment, changing it; at other times, they function as critical aspects of the environment in which others act. In this way, the first aim of this essay is to reflect on the role of the consequences of behavior for generating what is commonly referred to as motivation to learn. The second objective is to explore the idea that consequences of behavior are often changes produced in other people's behavior. When these aspects of the behavior of others become relevant themselves, the teaching environment also becomes associated with affection, so that affection and motivation, in most cases, may be seen as inseparable. Since personal relevant relationships can be built in the teaching and learning environment, this essay highlights how the development of affection can be understood based on notions that characterize principles that are basic to the study of behavior, such as reinforcement, stimuli control, conditioned reinforcement and social behavior.

Child development and social behavior

In this essay, we will try to show that addressing affection or social-emotional development also involves describing the constitution of the behavior of others as an important part of the world in which a person behaves. This is the field of interest that can be encompassed by the notion of social behavior (Guerin, 1994; Keller & Shoefeld, 1950; Skinner, 1953). We can consider that there are several aspects of convergence with topics studied by Developmental Psychology, from the perspective of behavior analysis. For example, a crucial issue in theories regarding social-emotional development (e.g., Bowlby, 1988; Kagan, 1981) is the sensitivity of

the adult caregiver (i.e., their responsiveness, which necessarily involves applying consequences to the child's behavior). This issue spurred studies that demonstrate the strength of the relationship between parental behavior and the social-emotional development of children. In a recent brief review on this issue, Alvarenga, Weber and Bolsoni-Silva (2016) highlight the role of parents who are more contingent and affectionate when answering their children's signals, and how these children's developmental results are considered to be superior in the social-emotional and cognitive areas.

Among the capabilities that involve interaction with others, imitation is also an example of behavior that is deemed critical to socialization, as well as to the development of language and cognition. The initial imitating of facial movements by very young babies, for example, would have a communicative function. According to some studies, babies use this skill during encounters with others to enrich their knowledge of people and actions, and to identify them (Meltzoff & Moore, 1977, 1992, 1994, 1999). This ability can demonstrate a rudimentary understanding of intersubjectivity and be the basis for social and cooperative behavior.

Identifying relationships

The notion of affection can be addressed from the point of view of the subjective experience of a person in relation to the events of the physical and social world (see, for example, Romero, 2002). In this sense, affection is a dimension that permeates the relationships of human beings in the form of moods, motivation and feelings. One way of perceiving affection that it is not necessarily incompatible with this position, it is looking at it from the point of view of learning and behavior changes derived from experiences with the physical and social environment. From this perspective, the primordial task is to identify the subject's actions and forms of relationships established with the environment in which this subject behaves.

The recognition that when a person is learning they are being active and constantly transforming their environment has led to the possibility of managing the consequences of behavior as a practical tool: when behavior occurs, one possibility is to present certain consequences to the one who behaved (see, for example, Martin & Pear, 2007). What is of particular importance to those who plan education is identifying what may technically be defined as a *reinforcing consequence*, a consequence that strengthens behavior, making it likely to be repeated in the future (Skinner, 1953). Reinforcing consequences can be "things", tangible objects in the environment, such as treats, chocolates, toys, points and tokens, among others. More important consequences in the context of formal learning are provided by others, the so-called social reinforcers (praise, facial expressions, a hug, a smile, etc.). What we would like to highlight

here is that social consequences are especially important because, in addition to contributing to the strengthening of certain behaviors, they also contribute to strengthening the bond between the child and other people, such as colleagues, teachers, and family members involved in the process of learning.

Although there may be a general rule that says “consequences of behavior are important for learning”, effective consequences have an idiosyncratic character. The establishment and effectiveness of reinforcing consequences often rely on subtle aspects of the life history of each individual. In addition, many times a bad consequence management can make learning ritualistic and without purpose, which may place student and teacher in a relationship centered around blackmail and accomplishment of tasks. Although this may in fact occur, what matters here is that the role that consequences have in relation to behavior in the everyday life of people is often misunderstood, which also results in them being incorrectly managed.

It is not always easy to recognize what the consequences deemed as relevant to the behavior of people, adults or children are. It is often difficult to notice that the behavior of a person can be as important as a consequence for the behavior of others in situations of interaction and learning. A pioneering study conducted by Herbert and Baer (1972) illustrates this point very clearly. The study involved two mother-child pairs as participants. The mothers complained about the inappropriate behavior of their children. The procedure performed with the mothers involved identifying the children’s behaviors and of the amount of attention that was devoted to those behaviors that were deemed as adequate or inadequate. In accordance with what proved to be an especially effective set of conditions, the mothers had to simply observe the behaviors that were deemed as appropriate and their own behavior in relation to what the children were doing. At first, appropriate behaviors and subsequent attention granted were very rare. As the researchers requested that the appropriate behaviors of the children were observed, the interaction between mother and child changed drastically: more closely observing the appropriate behaviors resulted in the mothers naturally dedicating more attention to them. With this attention, the appropriate behaviors of the children increased in frequency, which allowed more attention to be granted to them. The same success was not obtained when the instruction suggested diminished attention to inappropriate behaviors. This study very clearly showed that managing social consequences – the mother’s attention – is critical to the change in behavior, not only that of the children, but also of the mothers themselves.

A caregiver or teacher may not be aware of the constant regulating effect that the behavior of others has on their own behavior and vice versa, but it is a matter to be taken into account for both applied and theoretical analyses when addressing educational planning. Often it

is also important to identify what aspects of the behavior of others are deemed as appropriate (reinforcing) or inadequate (aversive). Despite being idiosyncratic by definition, relevant consequences to the behavior of others, which act as rewards or as aversive events, can be observed, described and analyzed as part of a process of intervention with pairs of caregivers-children (Vendramine & Benvenuti, 2013).

Contingent responsiveness an adult provides in their interaction with children should allow autonomy, thereby enabling the variability of their repertoire and modeling of their behaviors (Skinner, 1986; Alvarenga, Weber, & Bolsoni-Silva, 2016). The predisposition of adults in planning educational situations, whether formal or informal, must necessarily involve the understanding that while the consequences applied to the behaviors of children must be managed for building specific repertoires, the responsiveness of adults, when managing such consequences, should also facilitate the autonomy of the developing subject.

The task of identifying whether the consequences of a behavior reinforce it so that it may be repeated contributes to a good understanding of the psychological phenomena of the field of purpose, intent and motivation in terms of a person’s interactions with their physical and social environment, both in the present and in the past (de Rose, 1982). Identifying that a child behaves *with the purpose of attracting attention* often means that the attention of the people around him/her works as a powerful rewarding stimulus. A child’s actions that are rewarded with the attention of a caregiver are enhanced (almost always through social attention, like an adult’s words and looks of approval) and become part of the repertoire that is frequently displayed by the child. An important task, therefore, of any planned intervention to change how a child behaves (to teach him/her how to do something new or to stop doing something else) is to identify the reinforcing stimuli that may be sustaining repertoires in social interactions, academic skills, basic social care and health skills, cooperation, recreational activities etc. One of the important implications of identifying social reinforcers is the ability to identify that a behavior deemed as inappropriate (such as throwing tantrums, for example) is being sustained precisely by the attention given by a person to the child, namely by whenever he/she cries or screams when requesting something.

In addition to identifying the reinforcing stimuli to understand and change how the child behaves, another important task for planning interventions is identifying how the behavior of a person works as a context for the behavior of another. Teachers not only reinforce behavior, but also provide the context in which the actions of the child can occur and transform the environment. Cues, suggestions, presenting demands and instructions work in this way. It is important to note that at all times we are, somehow, creating these learning contexts; thus, the idea is that we may have a clear understanding

of what conditions we are creating for satisfying the necessary conditions to assess what kind of learning we are encouraging or not. We have learned that if we behave according to a specific instruction we will feel encouraged, i.e., we will be faced with the consequences that in previous situations strengthened our behaviors – see, for example, Matos (2001) for a review on the notion of behavior governed by rules and Matos (1999) for a review on the role of context in relation to the operant behavior in general.

It is worth noting that in order to analyze the role of context, the individual dimension is also present. An instruction from a teacher may or may not be satisfied, no matter what the teacher has planned or whether he/she is willing to strengthen the child's behavior that follows the instruction. Written text can promote the approach or withdrawal of the student. At home, a student may or may not spend the morning studying when it is necessary or even an option. The truth is that each student interacts or will interact differently with the contexts of education, whether formal or not. The role of this context also depends on the type of consequence that follows behavior: when following an instruction that has positive results, the behavior of a person not only becomes more likely, but the whole instructional context becomes stronger. If reading at home is beneficial in the acquisition of interesting knowledge, then it is very likely that other contexts that involve reading (bookstores, other books, people who talk about them) assume some role in the future: reading, instead of other options, can become a likely option for spending one's free time.

As the context in which people behave is complex and extremely dynamic, analyzing its role is always quite challenging. Part of what makes the context complex and dynamic is that its relevant aspects are often subtle dimensions of the behavior of other people. A student may, for example, identify through the looks and voices of his/her colleagues that, if he/she does not perform a certain task, it is very likely that he/she will be reprimanded for it. In formal education, students quickly discover who are the “cool”, “demanding”, “mean” or “easy” teachers based on often subtle aspects of the first lessons (and also sometimes make mistakes when interpreting these signs).

The planning of an intervention must enable, depending on what the child does, the adult to create opportunities so that he/she is able to do other things and experiment with the consequences of each of these new actions. The result is a dynamic social interaction between adult and child that encourages learning new behaviors and increases the emotional relationship among those involved.

Social relationships as reinforcement

Many of a child's cognitive skills are developed in social interactions, in the relationship with the parents,

caregivers, siblings and peers. In fact, it is very difficult to identify and size the value of learning numbers, words and even some skills such as personal hygiene, body care and physical space awareness outside the social context in which a child lives and grows. Cleaning his/her room certainly involves benefits for a child who uses this for various activities, but it also involves praise from his/her mother, the opportunity to bring a friend to play there and the ease of finding objects that are important. The same goes for acquiring math and reading skills, learned via social mediation and which are often a basic condition for establishing new relationships involving other people. The value of reading a story is not just about what the child experiences when deciphering the text and learning something new; an important part is the subsequent social exchange that is enabled by this experience: being able to retell the story to someone else or to talk about something contained in the history in a new context. People learn to speak, write and manage complex symbolic relations mainly because of what it provides in terms of social exchanges, which sometimes benefit the speaker, sometimes the listener and, most frequently, both.

It is possible that many aspects of the behavior of others are reinforcing stimuli even without involving any learning mechanisms: a baby can smile at another human being without having to learn to do so, in the same way he/she can have his/her behavior reinforced through touch, a certain tone in the parents' voice, through eye contact, through the rhythmic swinging motion one makes when holding a child. Innate sensitivities and learning are combined to generate what is commonly identified as “emotional contact”, in which a person's behavior acts as an effective reinforcing stimulus for the behavior of somebody else. After the child is no longer a baby, getting food, which is a reinforcing stimulus for his/her behavior at a given moment, depends on the child's first action in his/her environment so he/she can then obtain, for example, the attention of the mother; if he/she is in his/her crib and getting out is a highly reinforcing stimulus, the child needs his/her mother or someone else to place them on the ground. In this sense, the child acts and produces the mother's attention to be able to access the other reinforcing stimuli. This is the mechanism by which the behavior of others becomes gradually more and more reinforcing to a child. Establishing and maintaining social relationships becomes, over the course of our development, one of our most important skills, since through it we gain access to many possibilities of reinforcement and also provide reinforcing stimuli to the behaviors of those who live with us.

For a child, the value of bonding with others depends on it being followed by the addition of reinforcing consequences. An adult that is a source of punishment and abuse, for example, establishes his/her presence as an opportunity to escape from the situation, and therefore the emotional bonds are weakened or established in a very

unhealthy manner. Parents are not the only ones who may become important to the child through this process. Even if it is not possible to bond with the parents, others can acquire a similar value. Caregivers who pay attention to the needs of the child can also easily acquire the power of reinforcing the child's behavior, as long as they assume the function usually assumed by the mother or father.

As the relationship with the first adults they come into contact with is often the basis for how a child establishes relationships with other people, these initial relationships tend to be proportionately more important than those that follow. We thus believe that establishing emotional relationships with the first people to provide such reinforcing stimuli to the child is an important condition for future relationships, as is the learning conditions provided by them to be developed in a healthy manner.

A good example of the relationship between learning, social behavior and affection can be identified in the results of a study conducted by Yamada and Bevilacqua (2012) on the emotional dimension in adult patients with acquired deafness before and after the use of the cochlear implant. Forty-four adults participated in the study. Using the categories designated by Romero (2002) to analyze the changes in the emotional dimension, the research showed that the possibility of hearing through cochlear implants "meant being more integrated with themselves and able to relate in a more complete way with people and with the world" (p. 68). Thus, the possibility of hearing allowed new personal possibilities and exchanges with people from the patient's social circle. Comparing the experience prior to and after the implant during the research showed that during the former, there was a predominance of negative feelings and an emotional atmosphere of tension and depression. Following the cochlear implant, there was a predominance of positive feelings and an emotional atmosphere of tranquility and contentment.

In regards to the importance of the social environment, rich social relationships are largely responsible for what is commonly referred to as motivation to learn. The results of discoveries and recreational activities can act as an important source of enthusiasm for learning and improving performance in certain activities. These activities are usually related to intrinsic motivation, which are not arbitrarily mediated by other people. In this regard, Cameron and Pierce (2002) review an important debate related to the issue of the effects of consequences planned by others on intrinsic motivation conducting a thorough review of the psychological literature: traditionally, it is considered that the use of planned consequences to increase the frequency of specific behaviors in other people can negatively affect their intrinsic motivation. If a child gets a toy for studying math, for example, his/her intrinsic interest in math can decrease.

However, Cameron and Pierce argue that this results from the bad planning of the consequences of behavior and from the neglecting of the context variables in the planning

of education, whether formal or not. In this study, our argument is that problems in the planning of consequences that affect intrinsic motivation especially arise from the neglecting of the social consequences of a student's behavior. A substantial part of the enthusiasm to learn, for example, is social and can be promoted in any context of formal education if teachers are especially efficient and patient in finding conditions under which attention, praise, expressions of satisfaction and opportunities for interacting socially are arranged as a consequence of their students' behavior.

These consequences may be extrinsic in the sense of them being arranged by others, but are related to intrinsic motivation when considering social interaction as one of the objectives of education. A social environment with this characteristic is a fundamental part of that which Chance (2008) indicated for building *A Learning Atmosphere* in a study that lists 10 essential skills for effective teaching. For Chance, teachers should encourage enthusiasm, and this is possible if they closely observe the child's progress in relation to what they do and, mostly, in relation to *who* they do it with (teachers themselves and caregivers being included in this). All these issues make working with unmotivated children, those with learning difficulties or with a history of school failure, especially challenging. It is necessary, in this case, to pay attention so as to *deconstruct* the child's behavior and plan contexts accordingly. In other words, it is necessary to provide specific backgrounds and reinforce behaviors in a planned manner so that each of the behavioral elements that characterize the skill are strengthened.

The behavior of a child can be an important source of encouragement for the behavior of another; peer interactions strongly enrich the quality of emotional relationships and encourage the acquisition of academic and social repertoires. A very successful procedure for this involves peer-learning (see, for example, Greenwood & Hops, 1981). In this strategy, a child is responsible for teaching another or assisting him/her in specific academic tasks. If the teacher is able to appropriately encourage the tutoring child, with well-planned reinforcing stimuli, the process will help to integrate children in classrooms, promoting content learning advancements and increasing the social character of learning, along with the responsibility, engagement and social commitment of the children.

It becomes increasingly clear how social and other skills, which are important for formal learning, are developed from making contact with the demands of the environment, such as the development of part of what is commonly referred to as cognition, which occurs when a person establishes contact with situations where effective action depends on preliminary behaviors such as attempting to solve problems or making decisions (e.g., Benvenuti, Barros, & Tomanari, 2014; Oliveira-Castro, 1992, 1993; Skinner, 1968). Similarly, we begin to see that

the development of affections, which happens in these situations of development and learning, can be understood according to the same principles. Dealing effectively with this environment results in the creation of repertoires that are associated with healthy contact with other people. From a practical point of view, in the planning of education, people can act as mediators in the interaction of the individual with the environment, planning arbitrary reinforcing stimuli to certain tasks (such as when a student carries out an activity correctly and his/her teacher gives him/her a good grade). At other times, learning to produce reinforcing stimuli in social interactions is precisely the main goal, as social contact is often the source of our richest and most satisfactory interactions. This can be seen when, for example, an alternative communication strategy is taught to a child and he/she is given the opportunity to express what he/she wants, such as asking to play together, requesting company, expressing what is upsetting him/her, etc.

Building and managing reinforcement

The proper management of reinforcement is not always an easy task. As we have discussed above, first it is necessary to identify the relevant consequences that act as reinforcing stimuli. In addition, it is also necessary to identify the right time to reinforce a certain behavior. The planned use of social reinforcing stimuli is sometimes even more complicated and difficulties can be grouped into two categories: a) some standardized teaching procedures make it so that the use of social reinforcing stimuli is done mechanically and artificially; and b) children are not sensitive in the same way to social reinforcing stimuli.

Consequence management often involves the presentation of a tangible item (a treat, a token, etc.) associated with a social reinforcing stimulus, such as a compliment from the teacher. When a child chooses the right object when requested, the teacher can offer a token and say “very good”. While this may be important, this is an artificial and limited use of social reinforcing stimulus. When using cooperative learning strategies (e.g., Slavin, 1994), a certain task is presented to children who are responsible for working in groups. In this case, a child can learn by observing what others do. More than that, the children can act in a cooperative way in relation to one another, with one reinforcing the effective behavior of the other because, all in all, the result is important to the group. The cooperative learning strategy has been very effective for teaching skills that often generate demotivation such as math and sciences, and can produce results even for children with a long history of failure and learning difficulties. Perhaps more important than simplifying and presenting tasks gradually, the teacher must first closely observe the children’s repertoire to then provide tips, hints,

suggestions on what and how to do things, such as reinforcing the behavior of one another.

With proper planning, it is possible to use structured and well-planned tasks for developing the cognitive skills and emotional bonds of children when there are development issues and intellectual impairments, as well as of children without any specific difficulties. The results outside the context of formal education are encouraging. One interesting study on this subject was published in the context of applied behavior analysis with a clearer management of behavioral variables. Lloyd, Eberhardt and Drake Jr. (1996) worked with adolescents aged from 14 to 17 years, all students at an American school. The research assessed the effectiveness of a cooperative learning procedure for teaching words in Spanish. In one of the phases, the children were given some time to study alone, they then took a test that assessed how well they had learned to translate words from Spanish into English. In this first individual studying phase, there were no consequences for right or wrong answers during study time. In another phase, the children had to study in groups, so they could then take a test and receive a tangible item (a pencil, an eraser or a sweet treat) and compliment, whenever they performed well. The results showed that the children did slightly better, on average, having studied in groups and given a prize for their performance in the tests. However, there was a lot of variability in the results. Even with an average which indicated the superiority of the strategy in which the children worked in groups, many had bad results, some with a number of correct answers in the test nearing zero. Thus, a new procedure was tested: the children would study in groups and at the time of the test they would get the tangible item and the compliment if, as a group, they were able to achieve a good result in the test (that is, it was not enough for them to do well individually, they had to add up a total of points as a group, which made the consequence a result of the interdependent performance of them all). The results were much better than in the two other phases and individual differences were smaller. What the authors called “group reinforcing” caused the children to cooperate more during the study phase, because it was necessary that all of them did well in the test for the benefit of the whole group.

The second difficulty in using social reinforcing stimuli involves the sensitivity of people to social stimuli, which sometimes can be very low. For a child, the behavior of reciting a poem can be powerfully reinforced by praise and attention from the father, but that does not mean that praise and attention from the teacher will have the same effect. Sometimes, as commonly observed in adolescents, attention and opportunities created by one’s group of friends can be a lot more reinforcing than the attention and opportunities created by the parents. Reinforcing stimuli, however, can be built (that is, the reinforcing value may be acquired), and an important task of education, in addition to teaching

specific skills, is to create the conditions necessary for a social reinforcing stimulus to begin working and result in strengthened behaviors. In doing so, education extends the range of relevant consequences and makes the behavior of another relevant to the behavior of the child. Thus, education consequently becomes an important means for developing not only cognitive skills, but also affection developed from our sensitivity to other people's behaviors and to the reinforcing stimuli that the behaviors of others provide us with.

The process of building reinforcing stimuli always depends on a few consequences that already act as such: conditioned stimuli are built through the relationship with stimuli that are already effective (see for example, Tomanari, 2000). We begin with the stimuli that are given to us by our status as members of the human species, which are called primary reinforcing stimuli: food, water, heat, sleep, escape from harmful situations. However, whenever an individual transforms his/her environment and produces stimuli of this kind for his/herself, this happens in an environment full of other elements that may not yet have value or influence on that specific behavior. When a child brings food (primary reinforcing stimulus) to his/her mouth, there are smells, colors, movements and people also present in the environment. The elements that are critical to the production of food also become reinforcing stimuli. Thus, in this case, in the environment of children, there are almost always aspects of the behavior of the adult who provides the food that establish conditions and become reinforcing stimuli that are inseparable from the primary stimuli. This is the basis for the understanding what happens when the mother breastfeeds her baby: many stimuli are present in this interaction that initially quenches the hunger. The warmth of the mother's lap, caresses, voice and facial expressions quickly gain reinforcing value to the baby's behavior in relation to his/her mother.

Sometimes, the task of building conditioned reinforcing stimuli can be time-consuming and require detailed planning. Success in this task depends on the attention to the way a child acts to transform his/her environment and produce events that already act as reinforcing, as well as the attention to the events that do not act as reinforcing and are important from the point of view of establishing emotional bonds. Eventually, to maximize learning, it is necessary to exaggerate and dramatize, such as making an explicitly burlesque expression of satisfaction when the child receives a tangible reinforcing stimulus. The caregiver can repeat the same procedure in other tasks in which the child carries out any other activity they like, such as a game, at bedtime, etc. With this, the child learns, albeit slowly and under conditions that demand utmost consistency and lots of planning, that certain expressions are predictive of other people's reactions and of certain events with which the children are already involved. Many of the skills that involve "reading" emotions in the expressions

of others are natural or easily learned in the course of typical development. In some cases, however, they may be gradually learned by children with delayed development from special procedures that simulate, in a slower and purposely arranged manner, what naturally occurs without the need for special training.

Kohn (1993) recently published a book with the suggestive title *Punished by rewards: the danger of gold stars, incentive plans, as, praise, and other bribes*. The book was presented as a critique on the use of the principle of reinforcement in education, because it showed that the use of planned consequences can undermine intrinsic motivation for the important activities of the daily lives of people and, in particular, those of children. The study shows that children who received rewards such as stars or points for their performance in academic activities were less likely to behave in a similar fashion when these rewards were absent. The result, therefore, increased the frequency of the behavior of interest, however, it prevented that the children become involved with the academic activities for their intrinsic value, in other words, it prevented the development of intrinsic motivation for the activities.

Rather than being considered a critique of the use of reinforcement, Kohn's contribution (1993) can best be characterized as a critique of the mechanical, unnatural and ill-planned management of consequences of planned behavior for applied purposes. The real problem lies in the analysis and management of the reinforcing stimuli to the behavior of children. Involvement in school activities is largely related to reinforcing stimuli that are social and which happen once people acquire specific skills. What is the value of learning to ask for something or of describing an event of one's own life? The value of these newly-acquired knowledge is especially associated with the relationship between the consequences planned by the teacher so they may acquire a reinforcing function. Later on, they can remain in the person's repertoire due to other consequences that arise from new social interactions. Asking and describing are actions reinforced by changes that happen in other people's behavior, and which necessarily involve social reinforcement. In this sense, the difference between extrinsic and intrinsic consequences becomes less clear, as learning with others causes the content learned and the social context in which it is learned to become both relevant to the one learning it.

Conclusion

Our goal in this text was not to conduct a systematic review of the studies of a previously defined research field, whether basic or applied. This text can be characterized as an essay that is based on some studies selected from different lines of research to illustrate the need to discuss the issue of cognition without disassociating it from affection. In our view,

this discussion can be greatly enriched by studies that show the power of consequences (especially social consequences) on learning, whether planned or not. Usually, studies use consequences planned by the teacher, but the example that can be extracted from the lines of research with tutoring and cooperative learning is

that the teacher can plan to enrich social relationships in the context of formal education. Once this has been accomplished, the emotional and social character of knowledge is strengthened. Affection, in this case, is not separated or separable from the behavior of individuals themselves in their various social relationships.

Afeto e comportamento social no planejamento do ensino: a importância das consequências do comportamento

Resumo: Nosso objetivo neste ensaio é refletir sobre a necessidade de uma visão integrada do desenvolvimento da cognição e do afeto para o planejamento acadêmico. O estudante a todo tempo manipula e transforma o ambiente ao seu redor. Relações sociais que se desenvolvem nesse contexto envolvem unidades comportamentais entrelaçadas em que indivíduos ora atuam sobre o ambiente, transformando-o, ora funcionam como aspectos críticos do ambiente em que outros atuam. Este texto aponta a necessidade de identificar relações entre o sujeito que se comporta e seu ambiente social. Um recurso prático para lidar com questões do campo do afeto e da cognição no ensino envolve identificar e lidar com as consequências sociais do comportamento. Críticas da noção de reforço para a análise do comportamento humano são debatidas levando em conta a necessidade de explorar melhor a complexidade do comportamento humano em contextos sociais.

Palavras-chave: análise do comportamento, comportamento social, afeto, aprendizagem.

Affection et comportement social dans le planification d'enseignement : le rôle des conséquences du comportement

Résumé: Notre objectif dans cet article est de réfléchir sur la nécessité d'une vision intégrée du développement de la cognition et de l'affection à la planification académique. Pour cela, en particulier, nous avons exploré le rôle des conséquences sur le comportement des élèves. L'étude du rôle des conséquences du comportement est l'un de l'analyse du comportement des contributions à la psychologie. Dans cette étude, nous cherchons également à articuler cette contribution avec d'autres contributions, principalement de la psychologie du développement. La question principale à cette approche intégrée est de regarder l'élève comme un être actif, que chaque fois manipule et transforme l'environnement qui est autour de lui. Les relations sociales qui se développent dans ce contexte concernent des appareils de comportement qui sont entrelacés dans les individus parfois en agissant sur l'environnement, la en transformant, parfois en servant comme aspects critiques de l'environnement dans lequel d'autres agissent. Compte tenu ces considérations, le texte souligne la nécessité d'identifier les relations entre les personnes qui se comportent et leur environnement social, en particulier ceux qui peuvent être décrit par la notion de renforcement social positif. En ce sens, les relations sociales doivent être planifiées sur la base des contributions des études montrant le rôle des conséquences du comportement humain, en particulier le comportement social. En conséquence, il est souligné dans le texte qu'une ressource pratique pour traiter des questions de champ de l'affection et de la connaissance dans l'enseignement consistera à identifier et faire face aux conséquences sociales de comportement des gens. Critiques de notion de renforcement essentielle pour l'analyse du comportement humain sont opposés à une notion qui nécessite de traitement des effets des conséquences, en rendant compte la complexité du comportement humain dans un contexte social.

Mots-clés: analyse du comportement, le comportement social, affection, apprentissage.

Afecto y comportamiento social en la planificación de la enseñanza: la importancia de las consecuencias del comportamiento

Resumen: Nuestro objetivo en este trabajo es reflexionar sobre la necesidad de una visión integrada del desarrollo de la cognición y del afecto para la planificación académica. El estudiante a todo momento manipula y transforma su entorno. Las relaciones sociales que se desarrollan en ese contexto implican unidades comportamentales entrelazadas, en que individuos ora actúan sobre el entorno, transformándolo, ora funcionan como aspectos críticos del ambiente en que otros actúan. Con base en estas consideraciones, este texto señala la necesidad de identificar las relaciones entre el sujeto que se comporta y su entorno social. Un recurso práctico para hacer frente a las cuestiones del campo del afecto y de la cognición en la enseñanza implica identificar y hacer frente a las consecuencias sociales del comportamiento. Se discuten críticas de noción refuerzo para el

análisis del comportamiento humano, teniendo en cuenta la necesidad de explorar mejor la complejidad del comportamiento humano en contextos sociales.

Palabras clave: análisis del comportamiento, el comportamiento social, afecto, aprendizaje.

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