

The will in Vygotsky: contributions to the understanding of the "craving" in drug addiction

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Abstract: Craving is a central issue in the care of people with problems due to the use of alcohol and other drugs, and is considered an inability to control the desire for consumption. However, there is no clear definition of this phenomenon. We investigated the concept of will in the works of Lev S. Vygotsky (1896-1934), considering that his approach could contribute to understanding the craving. We reviewed the literature on craving and performed a focal analysis of the concept of will in selected texts by Vygotsky. Despite the controversies over the definition of the craving phenomenon, Vygotsky's proposition that the will is a superior psychological function mediated by auxiliary motives makes it possible to deepen the understanding of the craving. Craving management thus depends not only on individual initiative, but also on questions about the social, political, and historical logic that presides over the meanings of drug use.

Keywords: craving, Vygotsky, will, drugs.

Introduction

Public policy actions related to the use of alcohol and other drugs have mainly focused on healthcare and law enforcement and public safety issues. In the context of law enforcement, President Richard Nixon's 1972 pronouncement that "heavy drugs" were the United States' main enemy is a landmark in the "war on drugs" doctrine (Fiore, 2012). Currently, however, many people point out that the prohibitionism has not been able to reduce the production and access to illicit drugs, despite the huge investments to eliminate the circulation of illicit psychoactive substances. The repression and criminalization initiatives needed to enforce the prohibition of drugs have led to a questionable hardening of the criminal legislation related to drug trafficking (Karam, 2008).

In order to legitimize repressive measures, it was argued that drugs represented a problem both individually and collectively, and its consumption was a moral and social issue (Rodrigues, 2012). However, political and economic concerns underlie the supposed interest in health and public safety: "The war on drugs has become both an exercise in social control and a strategy for the expansion of the neoliberal economy through the exercise of power and violence" (Passos & Souza, 2011, p. 155). The result of this "war" was the growth of the global drug market, as well as the reduction of resources for the implementation and development of policies to reduce risks and damages associated with drug use, in other words, of preventive measures (Global Policy Commission on Drugs, 2011).

Harm reduction strategies (HR) aim for a comprehensive approach to the human being, regardless of drug use pattern, socioeconomic level, and so on. HR initiatives intend to enhance the "ethical and human aspects of the relationship between health policies and drug users" (Santos, Soares, & Campos, 2010, p. 996). HR is usually opposed to a perspective that uses abstinence at the beginning, middle, and end of the treatment for all users of alcohol and other drugs.

When thinking about illicit drugs — especially when it is not mentioned that psychoactive substances like alcohol, tobacco, solvents, and psychotropic medications are just legalized drugs — there is a tendency to associate them with various signs of "evil": crime, illegality, addiction, uncontrolled behavior, perversion, etc. However, it is necessary to distance ourselves from a moralistic discourse and to appreciate the historical-social and socio-cultural determinants of the consumption of psychoactive substances. In this sense, the human conscious activity must be historically contextualized by the particularity of the circumstances in which it takes place, understanding that it cannot be reduced to the mere expression of a biologically or psychologically considered organism (Luria, 1991).

Taking into account the broader framework of the "economy of drug trafficking", illicit psychoactive substances, as well as the licit ones, are part of the goods produced, distributed, sold, and consumed within the capitalist mode of production. In the case of licit drugs, the advertising, the arts, and the media have created a place for them as products of the cultural industry and as consumer items made a fetish. As Tiburi and Dias (2013) argue, "since the market is a moral standard in a society calibrated by capital, we consider good

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what can be bought and sold, if one can or wishes to buy it" (p. 65).

In this way, the debate about drug policies transcends purely technocratic aspects, with several elements that cross and touch the relationship between drug use, history, society, and culture. With specific regard to the treatment of people with drug use problems, the "craving" has been highlighted as a phenomenon that creates significant challenges to health care services. Even though the discussion about cravings has first arisen in treatment strategies that prioritize abstinence as a method, craving management is also important in services adopting the HR ethical-political approach. Thus, it is necessary to consider that the production of knowledge about craving will be permeated by scientific-philosophical foundations that need to be duly discussed, demanding an analytical and interpretative attitude towards the phenomenon.

Craving refers, in most cases, to a body and mental condition of intense desire to use a certain psychoactive substance, manifested by a certain individual, and directed to a drug previously consumed. This description is the most used. The users themselves often attribute to their cravings the inability to control their desire for drug use, which would lead them to rob, steal or defraud. Craving is considered an important factor in maintaining the harmful use of alcohol and drugs, as well as in relapsing in periods of abstinence or not.

The studies about craving show a variety of understandings of its meaning and manifestation, using different theoretical-methodological frameworks for research and approach, reinforcing the importance of debating them (Araújo, Oliveira, Nunes, Piccoloto, & Melo, 2004a). The conceptual and methodological studies highlight the need to broaden and diversify the investigations into this phenomenon, aiming at developing new strategies for assessment and intervention. As stated by Araújo, Oliveira, Pedroso, Miguel and Castro (2008),

there is no single way to measure the craving that serves all situations, but new research is necessary so that craving evaluation can help to better define this construct, as well as its related factors. (p. 61)

Given this panorama, which involves historical, economic, social, epistemological, and technical aspects related to drug consumption and craving, some questions arise: Is it possible to understand the craving more comprehensively, without reverting to extremes or to biological or environmental reductionism? To what extent does this discussion help us understand the origin and progression of cravings?

The concept of will as a superior psychological function was addressed by the Belarusian psychologist Lev Semyonovich Vygotsky (1896-1934), recognized as the founder of the cultural-historical theory of the development of higher psychological functions. It is

interesting to note that, based on common sense, the control of the will to use, or in other words, the need to have the "willpower" to go against the impulse to use, is considered a central element for the engagement (or not) in the treatment of problems arising from the use of alcohol and other drugs.

Several studies emphasize the importance of investigating craving, outlining its concept, implications, origins, etc., so that new treatments and intervention techniques can be elaborated, since cravings are an important element in the problematic use of alcohol and drugs (Araújo et al. , 2008; Vela, Abadías, Vidal, Munuera, & Carvacho, 2004). Given that there is a need to understand psychological events related to the relationship between drug use and craving, a systematization of the concept of will in Vygotsky may be a promising route for a more comprehensive understanding of the phenomenon.

Methods

The bibliographic research was the general methodological approach adopted in this conceptual study. For Lima and Mioto (2007), this method "implies an ordered set of procedures for finding solutions, attentive to the object of study, and therefore cannot be random" (p.38). Thus, the available information analyzed about the topic was collected in bibliographic databases. Maintaining a methodological rigor is extremely important in conducting research studies; however, as Prestes (2012) states: "One must not be afraid to dare and to innovate. Methodological rigor in any research is also a creation" (p. 407).

Some guiding questions were then posed: Is it possible that a systematization of the concept of will contributes to the understanding of craving as a phenomenon of the treatment process? Can the study of the concept of will – based on the cultural-historical theory of the development of higher psychological functions of Vygotsky – help to create methods and techniques of treatment, especially for practitioners and people seeking to handle drug-use cravings?

The first stage of the study was to elaborate further the definition of craving, seeking to clarify the gaps in the scientific literature. In order to collect the information to be analyzed, the following academic databases were used: Scientific Electronic Library Online (SciELO), Latin American and Caribbean Literature in Health Sciences (LILACS), and Psychology Electronic Periodicals (PePSIC). The searches were made using the following terms: "craving", "fissura" (portuguese for "craving"), "will", and "dependence on alcohol and other drugs".

The second stage was to analyze the concept of will proposed by L.S. Vygotsky in certain texts of the author available in his *Obras Escogidas* (Vygotsky, 1995a, 1995b, 1995c, 1999, 2001a, 2001b, 2003, 2006a, 2006b). The selection was based on the study of Selau and Boéssio (2012) on the concept of will in the works of

Vygotsky. Whenever possible, we used the texts available in Portuguese in two compilations published by Martins Fontes: *Construção do pensamento e da linguagem* (development of speech and thinking, 2001) and *O desenvolvimento psicológico na infância* (psychological development in childhood, 2003).

Next, in the third stage, as a procedure aimed at categorizing the results, the following files were prepared:
a) an analysis of existing definitions of craving; and
b) a revision of the development and applicability of the concept of will in the works of Vygotsky, creating theoretical schemes to facilitate the systematization of concepts. Finally, a data analysis was performed in order to verify the hypothesis that it is possible to understand the craving based on the concept of will, by identifying and describing to what extent it is possible to conceive of it as an alteration of this higher psychological function based on the literature addressed.

What is drug craving?

In 1954, in view of the controversies about the concept of craving arising from different understandings of the phenomenon due to the different explanatory models, two committees of experts met to define the meaning of the term in the scientific context: the Expert Committee on Alcohol and the Expert Committee on Mental Health of the World Health Organization. At that time, drug craving was defined as an urgent or uncontrollable urge for drug consumption, which could be divided into: a) physical craving, as in the case of withdrawal symptoms; and b) symbolic desire, as a trigger for both overuse and relapse (Kozlowski & Wilkinson, 1987).

One of the most influential conceptualizations on the subject is in the theoretical formulations of Alan Marlatt. This author proposed a phenomenological definition and, in his early studies, conceptualized the craving as a strong desire for the relief of unpleasant symptoms of withdrawal (Kozlowski & Wilkinson, 1987). However, while the investigations advanced, Marlatt also identified in the craving a subjective state mediated by the expectation of positive results associated with the use of a given drug (Marlatt, 1987).

These first studies led to the technical definition of the term, aiming to encompass the necessary contextualization to understand better the phenomenon. Kozlowski and Wilkinson (1987) proposed asking clear and direct questions to drug users about their experience with cravings, considering the need to articulate both the desire to use and the decision to use in the definition.

Araújo et al. (2004a) revisit what Alan Marlatt said about the distinction between cravings and compulsion. The craving would be a subjective desire for the effects of a given drug, while compulsion would be the behavioral intent of using the substance (Marlatt, 1987). Thus, the craving, being associated with desire, encompasses the dimension of the "I want", while the compulsion

would occupy the dimension of the "I will", directing the behavior to the act of consumption.

We can observe that the distinction between desire and intention to use makes it possible to discriminate two distinct manifestations of the craving. Araújo et al. (2008), in their review, seeking a more comprehensive and multidimensional approach, list four elements in the phenomenon of the craving: 1) desire for the substance; 2) anticipation of the positive results of consumption; 3) relief of withdrawal symptoms; and 4) the intent to use.

Currently, most researchers describe this phenomenon as an intense desire to use a particular substance. Its manifestation may occur at three times: during use, throughout the detoxification phase, and after prolonged periods of discontinuation of the substance use (Araújo et al., 2004a). It is also known that the "craving sensation has physiological, cognitive, affective, and behavioral components" (Santos, Rocha, & Araújo, 2014, 122) and that, therefore, its analysis and management strategies must take account of a large set of factors. Since craving is an individual experience, it is necessary to develop a personalized plan for treating each subject (Santos et al., 2014).

Main explanatory models for craving

In the *neurobiological model*, the craving may be triggered by things such as images, sounds, odors, and environmental contexts. These triggers can be internal or external cognitive cues that are in some way related to drug use. This relationship is established by pairing repeated drug use with internal or environmental variables, stored together in memory.

Because of this pairing, a person's neural circuits become hypersensitive to drug-related stimuli, triggering a strong desire to consume. Consequently, the main strategy for craving management in this framework is to recognize the triggers that induce this strong desire in order to avoid situations in which they are present (Zeni & Araujo, 2011).

In the cognitive framework, on the other hand, external/environmental and internal situations are involved in the process of relapse of someone seeking to stop using a particular drug. Mood swings, for example, will activate core beliefs of an individual and beliefs regarding the addictive use of a substance. These beliefs will trigger automatic thoughts that will lead to the craving (Santos et al., 2014). Also present in this model is the understanding that situations that stimulate drug use involve the relationship between additive beliefs and control beliefs:

Physiological craving symptoms, often experienced as strong anxiety, "trigger" permissive additive beliefs (such as "I will use only a little") that may lead to substance use. Along with these additive beliefs, which are associated with the pursuit of pleasure (or relief from displeasure) and feelings of well-being, the patient may also present control beliefs (such as "I will be harmed by using"), which may lessen the need to consume the psychoactive substance (Santos et al., 2014, p. 122).

The craving management techniques proposed by this framework involve coping strategies that seek to strengthen control beliefs. Among the main techniques, it is worth mentioning the replacement by positive image (RPI), which is the visualization of the benefits arising from the interruption of the use of a substance, seeking to strengthen self-efficacy during withdrawal (Santos et al, 2014).

The behavioral framework advocates the differentiation between craving and compulsion, the former being the motivational desire and the latter the behavioral intention. In the process of conditioning that comprises the manifestation of craving, however, these two phenomena are articulated. Thus, an external stimulus (conditioned stimulus – CS) – for example, the sight of a pack of cigarettes - triggers a craving (conditioned response – CR), which then leads to a compulsive behavior, which may or may not be followed by a substance use response and its consequent reinforcing stimuli (Marlatt, 1987). The management strategies adopted according to this framework, therefore, promote a new conditioning in relation to drug use, especially by controlling the environmental variables, so that the conditioning that triggers the craving becomes extinct.

Strategies, tools, and modalities of craving assessment

The assessment of the craving, in research or professional practice, follows mainly quantitative approaches. However, the lack of consensus on the conceptualization of the phenomenon generates different evaluations of what needs assessment as elements of the craving. In addition, in theory, certain aspects could characterize better the craving than others could, making it difficult to investigate because its manifestations differ from person to person (Corrêa Filho & Baltieri, 2012).

In relation to quantitative approaches, the main tools used to assess the craving are: a) Scale for craving evaluation, consisting of 11 questions that assess the manifestation of the craving in the first three days of hospitalization; b) Questionnaire of Smoking Urges and Questionnaire of Smoking Urges – Brief, the first consisting of 32 questions and the second of 10, both evaluating the craving for tobacco; c) Visual Analog Scale for Craving, consisting of a scale ranging from zero to 10 in which the user chooses the note that best defines the craving level; d) Cocaine Craving Questionnaire – Brief and Cocaine Craving Questionnaire – Brief – Brazilian

Version Adapted for Crack Cocaine, the first one evaluating craving for cocaine and the second for crack, both of which consist of a Likert scale ranging from one to seven, composed of ten questions; e) Obsessive Compulsive Drinking Scale (OCDS), a Likert-type scale comprising 14 questions, ranging from zero to four; and f) Marijuana Craving Questionnaire – MCQ-SF / Brazil Version, containing 12 items measured in a Likert scale ranging from 1 to 7 (Araújo et al., 2007; Araújo, Pedroso, & Castro, 2010, Araújo et al., 2011, Balbinot et al., 2011, Balbinot, Araujo, & Santos, 2014, Corrêa Filho & Baltieri, 2012, Pedroso, Castro, & Araujo, 2009, Santos et al., 2014).

Regarding the qualitative analyses, Chaves, Sanchez, Ribeiro, and Nappo (2011) present a craving investigation method in which, in order to evaluate the cracking, the researchers conducted an interview with users of crack cocaine seeking to investigate values, beliefs, and representations associated to the consumption. The interview topics sought to ascertain the sociodemographic profile, the history of crack use, the crackuse effects, the craving experience and its consequences, risk behaviors associated with the craving, the compulsive use of crack (binge), and the aggressiveness related to crack-use cravings "(Chaves et al., 2011, p. 1170). The study of the main beliefs, values, and representations observed by these authors showed that the craving is the main factor that prevents abstinence, causing users to submit themselves to situations that they would not accept otherwise, such as prostitution, manipulation of people, indebtedness, and the involvement in thefts and robberies.

Other relevant research findings on craving

The investigations related to the craving emphasize mainly the factors associated with the phenomenon. Regardless of the basic explanatory model, it is evident the importance of identifying the internal (motives) and external (needs) situations that trigger it. Zeni and Araújo (2011) identified that consuming alcohol, feeling intense emotions, having cash, seeing crack users, and feeling alone are triggers for crack-use craving. Araújo et al. (2007) identified positive, but low, correlations between the craving for tobacco and symptoms of depression and anxiety and the number of cigarettes smoked per day, but no correlation was found in relation to age, schooling, age at which smoking began, or motivation to stop smoking. Dreaming of alcohol also showed a positive association with cravings for it (Araújo, Oliveira, Piccoloto, & Szupszynski, 2004b). Balbinot et al. (2014), on the other hand, demonstrated an association between heart-rate alterations and cravings, thus showing that a physiological parameter could be used to analyze cravings.

The strategies for craving management or control are also widely discussed in the research literature. They range from therapeutic strategies, such as the use of the cognitive technique of replacement by positive image, to techniques developed by the users themselves, such as eating, finding satisfaction in routine activities, and using benzodiazepines (Santos et al., 2014; Chaves et al., 2011). Chaves et al. (2011) emphasize that control techniques are unique to individuals, but that "the greater the satisfaction of the subject with his own life, the less chance of succumbing to cravings" (p.1173).

Pedroso et al. (2009) point out the need to further research the particularities of the use of each psychoactive substance and of craving manifestations, because "desire can only be understood in its relation to the desired object and to the consequences of its fulfillment" (p. 219). In addition, it is important to differentiate between the distinct phenomena of craving and compulsion, in order to understand the particularities inherent in the desire for drug use.

With respect to pharmacological treatments, Corrêa Filho and Baltieri (2012) point out that there are currently four drugs approved by the Food and Drug Administration for the treatment of alcoholism, and oral and injectable acamprosate and naltrexone have demonstrated some efficacy in alleviating craving symptoms, contributing to abstinence. However, the authors state that these results are inconclusive.

While some researches advocate hospitalization as a strategy to control the craving, others suggest that it is unnecessary. Araújo et al. (2004a), Araújo et al. (2004b), Balbinot et al. (2011), and Chaves et al. (2011) understand that hospitalization should be considered because it would keep the user away from the context and the people with whom the use occurs. The research of Araújo et al. (2007), in this sense, is worthy of attention. The authors analyzed the tobacco craving since the beginning of the abstinence period, with three evaluation intervals in the experimental model: zero minutes, 30 minutes and 60 minutes. The authors observed that the increase in the tobacco craving was directly proportional to the period of abstinence. Nevertheless, Kozlowski and Wilkinson (1987) pointed out the observation of Glassman, Jackson, Walsh, Roos, and Rosenfeld (1984), for whom the most immediate, consistent and severe symptom of the suspension of tobacco use is the craving. These data may be a warning about the sudden withdrawal of a drug, as usually occurs in abstinence approaches that have hospitalization as a corollary.

Santos, Rocha and Araújo (2014), in a study carried out in an inpatient setting, noticed that during exposure to materials related to crack cocaine:

some patients reported that they felt the craving in an attenuated way, because they were in a protected, continent environment and away from the access [to crack cocaine]. In other patients, on the contrary, an intense craving becomes apparent, also perceived by physical symptoms such as tremors, sweating and restlessness (p. 125).

Thus, the promotion of the user's well-being is the management strategy that has shown the best results, and this aspect pervades the understanding of the craving in the different models that explain the phenomenon.

Understanding the will in the work of L. S. Vygotsky

Vygotsky (1925/1999) states that any movement/ gesture is performed, initially, unconsciously; the will generates a movement, an act, actions, words; then it causes a secondary reaction, that is, the meaning given to the movement performed becomes the basis of the consciousness. In this sense, the historical and social experience precedes the consciousness. It is important to note that in talking about the unconscious actualization of a movement/gesture based on the historical and social foundations of the human being, Vygotsky makes no reference to a possible "coded language" of psychological processes as proposed by psychoanalysis. The proposition of an unconscious movement in Vygotsky translates into an action that has not yet been signified in the historical, cultural and relational context of the individual, but which is actualized in correspondence with the human universality (Santos & Leão, 2014).

Vygotsky (1931/1995) also points out in experimental researches conducted with his collaborators that what characterizes the domain of the conduct is the possibility of choosing something among several options. He shows that the choices are directed by auxiliary motives, which consist of the result of the different experiences in the life of a certain person. It is important to note that the auxiliary motives do not control the decisions, but they do influence them. Expanding the analysis of the concept, Vygotsky demonstrates that the will is developed, being, therefore, a product of the culture of each human being (Selau & Boéssio, 2012).

After undertaking a comprehensive review of psychological investigations into the human development up to the mid-1920s, Vygotsky and his colleagues note a difficulty to be overcome regarding the method of inquiry in psychology. For him, most psychological theories focus on the investigation of the relationship between stimulus and response, without considering the historical factors that constitute the relationship between these two phenomena. Because of this, he proposes the historical methodology as a new form of investigating psychological phenomena (Vygotsky, 1931/1995a).

The historical study of human development processes must examine the phenomena in movement, considering, therefore, the dialectical constitution of the elements in question, in a process of successive incorporation by overcoming (aufhebung) in which it

is necessary to apprehend stages and changes from the arrival to the decadence. In order to justify the pertinence of this new research route, Vygotsky proposes that just as there are in animals and plants rudimentary organs, which are currently inactive, but which are fundamental for understanding the development of these beings, the same also occurs with the psychological functions of the human being. Therefore, understanding the permanent movement of creation, stability and transformation of the psyche consists in realizing that the historicity of the human being reflects a psychological construction that changes, but also conserves, that is, it is actualized as the negative internalize elements of its contrary in a new configuration. In this sense, it would be apt to define, based on the cultural-historical psychology, the concepts of lower and higher psychological functions (Vygotsky, 1995a).

The lower (or elementary) psychological functions comprise those of a rudimentary character, determined, above all, by the biological characteristics of the psyche. These functions are, over time, overcome by the development of higher psychological functions, such as conceptual thinking, voluntary attention, logical memory, and the will directed to an end. The higher psychological functions are products of a cultural development and have as a peculiar feature the fact that, unlike lower functions, they are not formed by the simple relationship between a stimulus and a response, because there are intermediate stimuli in this relationship (Vygotsky, 1931/1995b). Thus, the overcoming present in the higher psychological functions highlight the mediating function of the intermediate stimuli:

What is new is that it is man himself who creates the stimuli that determine his reactions and uses these stimuli as means to master the processes of his own behavior. It is man himself who determines his behavior with the aid of artificially created intermediate stimuli (Vygotsky, 1931/1995a, p. 77).

The higher psychological functions thus have the specificity of being historically constituted by the human being himself, who introduces artificial stimuli in the quest to control and to give meaning to his behavior. This purpose will be achieved through signs, which act from outside the organism. Thus, all psychological functions are based on mediation processes (that is, they are not immediate responses) that incorporate the "use of signs as a fundamental means of orientation and mastery of psychic processes" (Vygotsky, 1932/2001a, p. 161). Signs, therefore, are mediating stimuli that allow man to influence himself, dominating his psychological activity, and that also allow him to influence others, providing a new orientation or restructuring of psychological functions (Vygotsky, 1931/1995a, 1931/1995b).

The study of the role of signs in human development is related to the very structuring of the consciousness, as

it shows that the body can constitute itself as an exciter of man, through his own actions and in the face of the actions of others: "It is conscious what is transmitted to other systems as an exciter and causes in them a response. Consciousness is always an echo, an apparatus of answers" (Vygotsky, 1925/1999, pp. 71-72). This understanding of consciousness encompasses Vygotsky's first conception of this phenomenon. For Toassa (2006), there are two other definitions in the author's work: consciousness as an attribute and as a psychological system existing between man and the environment, and regarding the latter, which surpasses the others by incorporation, the use of the word highlight the distinctive character of the sign among the other stimuli. This analysis, considering the advances in Vygotsky's work (1932/2001b), admits that "thinking and language are the keys to understanding the nature of the human consciousness" (p. 485), so that "in the consciousness, the word is precisely what, according to Feuerbach's expression, is absolutely impossible for one man and possible for two. It is the most direct expression of the historical nature of the human consciousness" (p. 486).

According to Vygotsky, understanding the will as a higher psychological function is fundamental to describe the essence of consciousness, because it operates in a systemic interrelationship with the other psychological functions in its constitution. This occurs because the volitional act depends on a historical experience that enables a social experience, giving man the illusion that he thinks about doing something and that is the cause of doing so, thus characterizing the conscious aspect of the expression of the will that causes an action (Vygotsky, 1925/1999). Because it is a higher psychological function, the will can only be completely unveiled by the historical scientific method, since its expression will reflect the overcoming of rudimentary aspects of the human psyche. Thus, in order to understand the will, it is necessary to understand the socio-cultural determinants of the integral expression of the human behavior, including the manifestations of the consciousness, and to identify the ways in which signs work as auxiliary means of human activities (Vygotsky, 1995a).

Spiritualistic approaches permeate the study of the will, accepting, for example, the idea that there are unidentifiable forces that act outside the body and that lead human beings to either dominate their nature, as when voluntarily resisting pain, or to yield to their instincts. William James, for example, asserted that the possibility of resisting pain stems from the "presence of the flow of a certain spiritual energy which, by joining the weaker impulse, is able to secure victory over a stronger factor" (Vygotsky, 1932/2003, page 138). However, the Vygotskian proposition differs from the others in admitting the possibility of investigating the means by which it is possible to dominate one's own behavior (Vygotsky, 1995b). In this sense, the will is a concrete phenomenon of the human existence and, therefore, is subject to scientific inquiry.

The higher functions overcome the lower functions (aufhebung). Based on this assumption, Vygotsky set out to study pathologies that cause psychological changes, hypothesizing that these diseases would alter the ontogenetic development in ways that require an assessment. To justify this hypothesis and explain the overcoming character of higher psychological functions, Vygotsky compares hysteria, aphasia, and schizophrenia, in order to determine what is essentially new in the higher psychological functions, especially regarding attention, memory, perception, thinking, and the will. For him, in these three conditions the changes in the thinking process are central (Vygotsky, 1931/2006a).

Vygotsky considers that, in hysteria, the psyche is very prone to impulsive emotional discharges. This means that in this condition the will directed to an end transmutes into control the hypobulia, a kind of lower psychological function of the will that is more subject to the impulsive mechanisms of the emotions. Because it is a higher psychological function, the will prevails by incorporating the previous state (inferior), classified by Vygotsky as hypobulic. In this sense, the disease manifests itself due to some event that caused the disintegration of the will as a higher psychological function, allowing the lower instances, preserved in the process of overcoming, to assume their maximum expression again according to the primitive laws that govern them (Vygotsky, 1931/2006a).

In these circumstances, the will is not directed to an end, and its expression in hysterics is regressed: "it is not that hysterics have little willpower, what they do not have is a firmness of purpose. The weakness of the objective is, precisely, the psychic essence of the state that afflicts a great number of chronic hysterics" (Vygotsky, 2006a, p.171). The absence of this "firmness of purpose" enunciated by Vygotsky corroborates some of the peculiarities he identifies and attributes to the will, such as governing one's own self and behavior, setting goals and directing actions taking into account the consequences they produce (Vygotsky, 1931/2006a).

According to Fonseca-Janes and Lima (2013), it is possible to discern distinct steps in the development of the psychological function of thought in Vygotsky's work: a) syncretic thinking, in which there is an aggregated and disorganized manifestation of cognitive contents; b) complex thinking, characterized by the grouping of objects based on the representations one has about them and not on their stable characteristics; and c) conceptual thinking, which expresses "a deep and broad reflection of the reality of an object in all its diverse complexity, and of the nexus and relationships between it and the rest of reality" (Vygotsky, 1931/2006, 80). In this sense, Vygotsky affirms that thinking plays a central role in the development of all higher psychological functions,

that is, of the integral process of consciousness, and that thinking in concepts makes it possible to structure the will directed to an end. Thus, hysteria is also a disturbance of the intellectual activity that guides behavior (Vygotsky, 1931/2006a).

Considering specifically the contributions of his studies on hysteria, one can see that the process of development of the will, according to Vygotsky, is based on the following stages: 1) maximum expression of impulsive and emotional states; 2) overcoming hypobulia as an independent instance; and (3) emergence of an end-oriented will. By understanding this process and identifying the regression that occurs in cases of hysteria, it becomes possible to think about how this regression to a lower state is also expressed in other pathologies (Vygotsky, 1931/2006a).

In cases of amnesic aphasia, in which there is a dissociation from the capacity for concept formation, impairing the use of language as a means of communication, the will also regress to its lower state, because there is no symbolic formation of the action, affecting the possibility of structuring intentions and making decisions based on the will. This fact shows another important characteristic of the will as a higher psychological function: it is possible to associate it with the symbolic formation of thinking and to perceive that the volitional action begins even before its execution (Vygotsky, 1931/2006a).

The cases of aphasia also highlight the importance of mediation structures for the expression of the will. Goldstein (1950) describes the case of a patient who could not obey a command to 'close his eyes', but when asked to simulate how his eyes stayed when he slept was then able to close them. Referring to this report, Vygotsky (1932/2003) infers that when the patient pretends to be asleep, the closing of the eyes does not result from an action of control of his own body, but is only a reflex action. This example corroborates Vygotsky's idea that the will directed to an end is not regulated by a simple relationship between a stimulus and a response, but is necessarily permeated by auxiliary stimuli/means that form the signs and are fundamental to controlling volitional acts.

Vygotsky also analyzed Schizophrenia regarding changes in the will. For him, the manifestation of this condition is accompanied by the disintegration of both the personality awareness and voluntary activities, so that the rupture in abstract and conceptual thinking prevents the individual from directing his own will:

In schizophrenia, all the higher functions, all the higher psychological syntheses, including the awareness of reality and the self-awareness of the personality, go against the development and repeat in reverse order the whole path of direct development and of the formation of these syntheses in the period of sexual maturation (Vygotsky, 1931/2006a, p. 197).

Considering the importance of these three conditions for the study of the formation and expression of volitional processes, it is possible to point out some general principles regarding Vygotsky's theoretical conceptualization of the will. Nevertheless, since the actualization of the voluntary act is philosophically articulated with the manifestation of the human freedom, it is essential to emphasize he understands this idea.

The author points out that the expression of human freedom occurs by understanding the natural laws and directing them towards specific ends (Vygotsky, 1931/2006a). Freedom is, therefore, the possibility of consciously apprehending situations that are set before the human being (Vygotsky, 1931/1995c). As Toassa (2004) argues, we find in the works of Vygotsky

the freedom as "free necessity," "gnosiological necessity": a new necessity that consists in the attribution of new meanings to the sensory information, in learning to use instruments and in creating new means of mastery of the reality of nature; a necessity that can be understood via the social relations mediating the relationship between man and nature. (p. 7)

The Belarusian author argues that the will does not consist in a disposition purely internal to the individual, as implies the idea of "free will", and is, therefore, conceived as dependent on external motives: "the illusion of free will is lost so soon as we try to analyze the determinism of the will, its dependence on the motives" (Vygotsky, 1931/1995c, p. 287). The volitional act is thus mediated by motives that are external to the moment of the action, and the behavior itself must be analyzed considering factors that will not necessarily be evident when the action occurs, thus invalidating a simple stimulus-response mechanism.

To comprehend the will, according to Vygotsky, it is necessary to keep in mind that one chooses a determined behavior or action before actualizing it. For the author, this mechanism depends on the dynamism that structures the will as a higher psychological function, which depends essentially on the presence of auxiliary motives, whose role is determinant in directing the will to an end. For example, an individual who is reluctant to get out of bed, even knowing that he can no longer lie down, uses an auxiliary motive as a resource to get up, for example, counting from one to three. In providing this example, Vygotsky clarifies that this resource used by the subject, external to his action, is fundamental to his volitional act, because it functions as a tool that mediates the choice to get out of bed and urges him to act (Vygotsky, 1931/1995c).

The relevance of the auxiliary motifs in this process is also evident for Vygotsky when investigating situations that the individual would usually avoid, but in which the construction of a meaning or purpose linked to his volitional act increases or supports his choice. For example, people persist in a hunger strike or endure intense pain due to the establishment of an auxiliary motive (e.g. an ideological project or a religious promise) that gives meaning to that decision (Vygotsky, 1931/1995c).

Vygotsky also considers the will a paradoxical phenomenon, because it concomitantly generates volitional and non-volitional acts. The author explains this phenomenon by pointing out that there are two processes linked to a voluntary action: decision and execution. The decision concerns a functional relationship established between the context in which the individual will act and the construction of the auxiliary motives. The execution is the actualization of a previously made decision, which is an almost automatic, predetermined act. This corroborates the hypothesis that the auxiliary motives are the primary factors for the development and expression of the will, distinguishing themselves from the stimuli because they generate a permanent conflict in the volitional process, supposing a historical, oriented origin in a movement of dialectical overcoming (Vygotsky, 1931/1995c).

Final considerations

In order to articulate the manifestation of the craving with the concept of the will as a higher psychological function, Vygotsky's approach to the will emerges as a possibility to differentiate between the craving (I want) and the compulsion (I will). This is possible especially when the author deals with the paradox of the will, manifested in the fact that the attainment of the objectives of an individual action involves both volitional (decision) and non-volitional acts (execution). In this sense, when someone says that she or he uses a drug because of having seen a friend using it, or because she or he is in an environment associated with drug use, it is understood that the action at that moment (using a certain drug) is a non-volitional act, but which was once voluntarily established via auxiliary motifs that have structured the meanings and significations attached to that psychoactive substance and its context of use.

In fact, when the neurobiological model discusses the "triggers" to the use of a substance, or when the cognitive model talks about control beliefs that prevent the use, it is necessary to consider that the choice of using or not is not established at the moment when the stimulus (the presence of the drug) occurs, but previously. In this sense, the will, in Vygotsky's works, is a concrete dimension of the action; the historical and social experience essentially mediates the decision of using drugs. The perpetuation of the idea that the harmful use of a particular psychoactive substance stems ultimately from a conscious choice omits the correlation of that use with the broader contexts of an individual's life experiences.

These considerations also allow us to problematize the effectiveness of the inpatient practices used to treat people who harmfully use alcohol and other drugs. Since it is observed that the execution of an action (compulsion) is not established when in presence of the drug, but rather as a process of decision (craving) that is structured based on the concrete circumstances of life in society, it is controversial to argue that the abstinence from the drug would promote the disintegration of the relationships that foster the use.

The researches on the craving reviewed here showed a positive correlation between quality of life and resistance to the craving, thus it is important to conjecture about how the conditions of institutions with asylum characteristics affect the treatment of users of alcohol and other drugs. It is important to emphasize that the attention to the quality of life of individuals requires the promotion of the access to essential goods and services and to decent living conditions. In this way, it will be possible to create new sets of symbolic representations, that is, new auxiliary motives, which will direct the will to purposes that are less damaging than those arising from harmful drug use.

The studies developed by Vygotsky on hysteria, aphasia and schizophrenia, in which the author demonstrated that these conditions lead to a regression to lower states of the psychological functions, showed their importance in the investigation of the hypothesis that the craving is an alteration of the will as a higher psychological function. A critical point highlighted by Vygotsky to conceptualize this regression was to observe changes in the processes of consciousness and thinking.

Considering that the manifestations of the craving involve the production of meanings about the benefits offered by the drug (pleasure), or about the cessation of sensations that are negative (displeasure) while using it, we can perceive that there is a structuring logic created by the user himself in his relationship with the drug. These meanings are related to the principle of the mediation role of signs in the development of the higher psychological functions proposed by Vygotsky. It is precisely by introducing artificial stimuli, that is, those that the individual himself confers meaning to, that man "forms from the outside connections in the brain, directs it and by it governs its own body" (Vygotsky, 1931/1995b, p.85).

Thus, when the craving leads to drug use, it is the manifestation of a non-volitional action that next constitutes the will directed towards an end (higher psychological function). However, there is no regression in this context to a rudimentary psychological state, but rather an action resulting from the structuring of thinking and consciousness by means of auxiliary motives. It is worth noting that apprehending the craving as an action governed by higher psychological processes stems from a historical analysis of the phenomenon of the will, which demonstrates the presence of multiple determinants and conditioning factors in the complex of relations that mediate human activities. Thus the proposition that there is no regression of psychological functions in the manifestation of the craving goes beyond dualistic conceptions such as those used in the behavioral, neurobiological, and cognitive models in which the stimulus-response relationship is ultimately what triggers the use of psychoactive substances.

Moreover, considering that the will remains a superior psychological function in the manifestation of the craving, the lines of minimum resistance can become maximal in order to gain access to the drug. This fact is observed, for example, when Chaves et al. (2011) state that

the effort expended to obtain crack cocaine is not proportional to its return. L28FU8m [research subject] reported having dismantled his wardrobe and walked with it on his back to the "boca" (the place where drugs are sold) in exchange for two crack stones (p. 1172, emphasis added).

Therefore, the manifestation of the craving is a social, cultural, historical, and singular phenomenon. In this sense, the management strategies that can be deduced from the discussion of the concept of will in Vygotsky involve not only an engagement of the individual as to his desire to interrupt the use, but also includes all the social, political and historical logic that governs the construction of meanings about drug use. Thus, taking into account the ideas of the Belarusian author, the treatment programs that intend to deal properly with cravings need to go beyond the more immediate handling of their manifestations, they must

allow the individual to elaborate the reasons and decisions involved in the origin and development of a problematic use pattern of alcohol and other drugs.

A vontade em Vygotski: contribuições para a compreensão da "fissura" na dependência de drogas

Resumo: A fissura (*craving*) é questão central no cuidado a pessoas com problemas decorrentes do uso de álcool e outras drogas, sendo considerada uma incapacidade de controlar o desejo pelo consumo. Contudo, não há definição unívoca desse

fenômeno. Investigou-se o conceito de vontade em Lev S. Vygotski (1896-1934), considerando-se que sua abordagem poderia contribuir para a compreensão da fissura. Realizou-se uma revisão da literatura acerca do *craving* e uma análise focal do conceito de vontade em textos selecionados de Vygotski. Não obstante as controvérsias sobre a definição do fenômeno da fissura, a proposição de Vygotski acerca da vontade como função psicológica superior mediada por motivos auxiliares possibilita ampliar a compreensão do *craving*. O manejo da fissura, assim, depende não somente de uma iniciativa individual, mas também de questionamentos sobre a lógica social, política e histórica que preside os significados sobre o uso de drogas.

Palavras-chave: craving (fissura), Vygotski, vontade, drogas.

Le volonté chez Vygotski : contributions à la compréhension d'avidité dans la dépendance des drogues

Resumé: L'avidité (craving) est un point central pour le soin des personnes ayant problèmes issus de l'utilisation de l'alcool et d'autres drogues envisagée comme l'incapacité de contrôler le désir de consommation. Cependant, il n'y a pas de définition univoque sur ce phénomène. On a recherché le concept de volonté chez Lev S. Vygotski (1896-1934) en envisageant que son approche pourrait contribuer à la compréhension de l'avidité. On a effectué une révision de littérature autour du craving et une analyse focale du concept de volonté dans des textes sélectionnés de Vygotski. Malgré les controverses sur la définition du phénomène d'avidité, la proposition de Vygotski autour de la volonté comme fonction psychologique supérieure médiate par motifs auxiliaires permet d'enrichir la compréhension du craving. Le maniement de l'avidité ne dépend pas seulement d'une initiative individuelle, mais aussi des interrogations sur la logique sociale, politique et historique qui oriente les sens de l'utilisation des drogues.

Mots-clés: craving (avidité), Vygotski, volonté, drogues.

La voluntad en Vygotski: contribuciones a la comprensión del craving en la drogadicción

Resúmen: La fisura (*craving*) es un tema central en la atención de personas con problemas derivados del uso de drogas, considerada una incapacidad para controlar el deseo de consumo. Sin embargo, no existe una definición única de este fenómeno. Se investigó el concepto de voluntad de Lev S. Vygotsky (1896-1934) teniendo en cuenta que podría contribuir a la comprensión de la fisura. Se realizó una revisión bibliográfica sobre el deseo, y un análisis focal del concepto de voluntad en textos seleccionados de Vygotski. A pesar de las controversias en la definición del fenómeno de la fisura, la proposición de Vygotsky sobre la voluntad como función psicológica superior mediada por motivos auxiliares hace posible ampliar la comprensión del *craving*. El tratamiento de la fisura no sólo depende de una iniciativa individual, sino también de preguntarnos acerca de la lógica social, política e histórica que preside los significados del consumo de drogas.

Palabras clave: craving (fisura), Vygotski, voluntad, drogas.

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