

The circuit of affects in drug addiction: an alternative explanation for the servitude to drugs

O circuito dos afetos na drogadição: uma explicação alternativa para a servidão às drogas (resumo: p. 16)

El circuito de los afectos en la drogadicción: una explicación alternativa para la servidumbre a las drogas (resumen: p. 16)

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We present an alternative explanation for drug addiction, reflecting on the reasons that lead a person to persevere in drug consumption despite knowing the harm that this consumption brings. Based on the works by Humberto Maturana and on the theory of affects in Spinoza's *Ethics*, we assume that human beings are moved by passions and formulate the circuit of affects of drug addiction. In this circuit, we have identified three affective complexes: the singular personal complex, the relief/oblivion complex, and the psychosocial complex, which form a spiral dynamics of sad affects. Such affects impel the individual to continue in this dynamics, and drugs play only an accessory role. Affects from different origins characterize each affective complex and understanding their particular and specific features guides the corresponding care action, in order to interrupt the spiral dynamics of the circuit.

Keywords: Drug addiction. Mental health. Psychosocial care centers. Harm reduction. Innovation in healthcare.



Introduction

If I could, I would be more sensible, but a new force/ drags me against my will, and desire/ attracts me to one direction, and reason, to the other. I see and approve of the best, but I follow the worst...^(b) (Ovídio)

^(b) Extracted from the site:
<https://www.pensador.com/autor/ovidio>

Human beings often perceive themselves as trapped in this condition: although they are aware of what is better for themselves, they continue to do what is worse. In our view, this is the central issue of those who are tied to drug consumption (alcoholic beverages are included here). It is amazing that people who are apparently capable and mentally healthy recognize the harm stemming from drug use but, all the same, persist in this consumption, often pushing the body to its extreme limit.

The current answer to this intriguing question is the notion of addiction under the disease model¹, which proposes as a “fundamental principle that drug dependence is a physical disease”². This view overcomes common sense, which uses ideas such as “willpower” or “bad habits acquired” to explain the phenomenon. Such concept dismisses the possibility that drug addiction is a phenomenon derived from a state resulting from another process or the symptom of another disease, and admits that it is a progressive and chronic disease whose biological web involves and affects all dimensions of the person’s life. Therefore, it is a comprehensive explanatory concept that combines social, psychological, spiritual, and biological dimensions. Commenting on an article by Leshner² which categorically states that addiction is a brain disease and highlights the importance of moving away from the stigma and moralistic implications of the concept of addiction, Sheehan and Owen³ note that:

[...] he proposed that at some point during drug use, because of drug-induced cellular adaptation, a metaphorical molecular ‘switch’ signals a change from use or abuse to addiction. At this point, the brain becomes fundamentally altered, producing drug effects and behavior that are quite different from the “predisease” state. (p. 271, underlining added)

The metaphor of a molecular “switch” that, “at some point,” signals the change of regime from use to abuse or addiction connects the level of cellular adaptation to the level of behavior change.

This notion of addiction is:

[...] an explanatory principle – like “gravity” or “instinct” – [which] really explains nothing. It’s a sort of conventional agreement between scientists to stop trying to explain things at a certain point⁴. (p. 314)

The notion of addiction as the “switch” metaphor is presented in place of the phenomenon that needs to be explained.



In this article, we propose an alternative explanation for the contradiction described by Ovid concerning drug consumption. Why does a person, despite being aware of the harm stemming from drug use, continue to consume drugs? The issue that needs to be explained lies in the contradiction between reason/knowledge and desire/passion in relation to human behavior, to which the approach focusing on drug consumption offers answers that we consider elusive.

We adopted, as theoretical framework, Humberto Maturana's work (theory of autopoiesis, biology of knowing, biology of language)⁵⁻⁹ and the theory of affects in Spinoza's *Ethics*¹⁰.

Structural determinism and the nervous system

The terms perception, cognition and knowledge are usually employed in a general sense of capture of reality, which would be independent of the subject. The organs in charge of this function would be the nervous system and the brain. In the brain, home to the so-called cognitive abilities, all the lived experience would be encoded in a system of representations that reconstitute the world in our body.

Given the impossibility of correlating the activity of the nervous system with the sources of external stimuli (based on color vision research), Maturana⁸ abandons the notion that the brain is a capturer of information and a processor of symbols and representations, showing that it is possible to establish stable correlations between retinal activity (nervous system) and the name given to a color (which is another activity of the nervous system). The author also reinterprets Sperry's experiment in which a 180-degree rotation was surgically performed in the eye of a salamander, showing that the productive correlation is from the stimulated retinal quadrant with the movement of the tongue and not with the stimulus object (a fly). After the 180-degree rotation of the eye, the fly's image is formed in the opposite quadrant of the salamander's retina, and its tongue moves in the direction that is opposite to where the fly is. Retinal neurons are perturbed by the fly's image and correlate with the tongue's motor neurons, establishing certain activity relations between parts of the nervous system (retina-motor activity). However, although it is affected by the fly's image (perturbation of the retinal neurons), the nervous system does not capture the fly's nature^{5,6}.

The nervous system does not operate by representing the world; it does not capture reality. To this meaning of nervous system, Maturana added the idea that living organisms function as operationally closed systems, under the logic of conservation of their organization and performance of their autopoiesis. As an integral part of the body, the nervous system participates in this dynamics of adaptive structural transformations. When perturbed by stimuli or affections, the sensory system connects with the motor system, which modifies the organism's internal correlations and moves the body in order to maintain its organization and existence. We experience this sensory-motor dynamics of the nervous system in the relationship of the body with the environment as acts that make distinctions in this environment, distinctions that make the world emerge. In this sense, Maturana states that knowing is acting and acting is knowing. It should be noted that acting, here, is not the result of deliberation but constitutes an intrinsically determined and necessary dynamics^{5,6}.



Body and memory

According to Maturana⁵, the living organism is characterized by the fact that it operates in a recursive circular dynamics. However, it is not a repetitive circularity, for, in each cycle of the dynamics, it restarts from the point at which the previous cycle had ended. Thus, it is always a new situation that begins from a new starting point. The sequences of structural transformations that preserve autopoiesis never repeat themselves; they leave on the body, in its structure, marks of the previous cycles.

This notion that the living organism has a recursive circular dynamics implies that bodies are necessarily historical and have memory. Therefore, they do not follow a closed program; rather, they are open to new possibilities in every cycle, depending on the previous history and on the interactions that are present.

Structural drift is a sequence of domains of adaptive interactions (structural transformations) and their modes of internal disposition (physiology), which leave traces and marks on the body. In this process, configuration patterns of the internal disposition and its domains of transformation and action are established.

We perceive these internal dispositions as emotional states (to Spinoza, these are affects of joy, sadness, and desire) and, due to this, we can say that, to each affective/emotional state, a field of transformations and actions is constituted, determined by its structure.

In this sense, we say that a person can only act according to their affective/emotional state. Those in a state of anger (a variation of sadness) only perform angry actions. In contrast, those who are in a passionate state (a variation of joy) only do passionate things. To do other things, the person needs to move to another affective/emotional state, to another configuration of their structure; that is, they need to modify the state (structure) of their body and mind. A structurally determined body only acts according to the possibilities defined in its present structure. It does not act by will or by determination of reason, nor does it undergo instructive interactions or obey external commands. Biologically, emotional dispositions are dispositions for action. Emotion and action are intrinsically interconnected in the body.

Concerning drug use, the notion of relapse, understood as a repetition of past events, obscures the understanding of the phenomenon. Biologically, a body in its structural drift cannot repeat anything. Thus, due to its recursive circular dynamics, there can be no relapse, as it is a new event, a brand new story that must be known in its particular chains of interactions to serve as a learning source. If we consider that use of drugs is a repetition of a known event, we discard the strength of the elements present in the situation and take imaginative ideas activated from memory as reference. In other words, we lose opportunities to learn about the dynamics of the current affects.



The emotion that humanizes

We, humans, are humans because we are products of a long history (phylogeny) of interactions of bodies with one another and with the environment. According to Maturana^{6,7}, we emerge in the interaction under a specific physiological/emotional disposition that allows “interacting with the other as a legitimate other,” which generated a way of living in small groups of individuals who coordinate themselves and share activities. This particular internal disposition of the bodies is an affective state, an emotion that enables the recursive interaction of two bodies without loss of each one’s unity and identity. Both recursive dynamics and memory allow to establish, in each body, patterns of congruent structural transformations, which produces mutual coordinations of actions and emotions.

Acting together in a coordinated way, two or more bodies expand their interaction domains and become a cooperative unit that amplifies the force of being of each one of them. The power of action of each one increases, perceived as a state of joy. The other’s existence is perceived as an interaction that expands or facilitates the power of action and not as a threat that reduces or prevents such power. Due to this, desire and joy lead to a recursive interaction, producing a way of life that is based on operational consensuses, coordinations of action and emotion. It should be noted that these chains of affective states (affects) are unstable, as the bodies are submitted to numerous other bodies and interactions that cause other affective states (affects). Maturana emphasizes that these many possible states are randomly configured, and when they are configured, they have effects that are not random - they open a course of evolutionary transformations.

“Languaging” and language

With the neologism “languaging”, Maturana⁸ designates the way of living of a group formation based on a consensual coordination of actions and emotions. This way of living is not restricted to the human species, being present in several other species. Coordinated consensual actions, memories and recursion allow to include things that serve as reference to the articulation of a coordinated action in a sequence of coordinated actions. These things can be seen as signs and tools that coordinate previous coordinations.

Maturana describes a process in which, from the consensual coordination of action and emotion, from the body itself together with other bodies, a specific way of acting arises: the act of observing. Through the recursive process, when the act of observing folds and reflects itself on observing the act of observing, a self-conscious observer emerges, one who observes and knows that they observe.

From the interaction between the observer and other observers emerges a way of life in which there is a coordination of coordinations of action and emotion [C-C], which condenses into S (sign, tool). Then, mediated by S, the observers can coordinate themselves, characterizing a coordination that refers to S, then to S2, and then to S [S-S]. Maturana designates this mode of coordinations of coordinations as living in language.



Words are signs (syncretic condensations) of consensual coordinations of action and emotion. A set of words corresponds to a network of reference points of consensual coordinations through which we act in a coordinated and cooperative way.

In this perspective, language is not a symbolic system and communicating is not a mere transmission of information. Being a form of dynamic coordination of bodies, in recursion and in the praxis of consensual life a body can address itself and coordinate itself. We perceive this self-coordination in language as our conscious mind^{6,11}. In a way, we are conscious while we address ourselves, “linguaging” in the coordination of action and emotion. By living in language, we can affect ourselves, being part of the causes of the affects we perceive. Hence Maturana’s aphorism: “Everything said is said by an observer to another observer that could be him or herself”⁸.

In language, the human body continues to suffer the interaction of countless other bodies, linguistic and non-linguistic interactions that affect it and demand the flow of structural transformations for it to continue living. These structural transformations are structure-determined and, although it seems that self-consciousness “directs” and “commands” the changes and movements of the body as the expression of will, the body must necessarily obey structural determinism. In other words, we have the illusion of choosing and determining the course of our actions, but when we act by will, we are only a part of the multiple sources of affections and affects. In short, we are determined to move by the play of forces or of the countless affects that act in our body. By saying that we want or desire something, we are just commenting on the consciousness of our movement. Our words are not the cause of this movement; in fact, we ignore what causes it. As the body and mind suffer these forces and are subjected to them, Spinoza call these affects passions.

To know the dynamics of the affects is to know their causes

The human body is subject to numerous forces that act on it, affecting and modifying it. We perceive these forces as multiple affects, multiple modifications, and their corresponding ideas. Spinoza¹⁰ assumes that one affect can have four outcomes in which the body: 1) can be modified to increase or favor its strength or its power of action; 2) can go in the opposite direction, so that the transformation reduces or prevents its power of action; 3) can have a neutral outcome, remaining in the same previous condition; and 4) can be disintegrated by the external force (p. 163).

In biological terms, after an interaction, an organism undergoes a structural modification that can result in: a) expansion of its domain of adaptive interactions; (b) reduction of its domain of adaptive interactions; c) maintenance of the *status quo*; or d) loss of its organization and disintegration or transformation into something else.

As the mind perceives everything that happens in the body¹⁰ (p. 107), its force of thinking also accompanies, simultaneously, the dynamics of body transformations.



Spinoza calls *joy* this passage to a greater expression of being, greater current (effective) force of being or greater power of action. Power does not have the usual meaning of potentiality here, of something virtual that “can be” updated. Joy is a current movement, an effective reality. Conversely, he calls *sadness* the process of reduction of expression, of the force of being, of the power of action¹⁰ (p. 177).

With Maturana, we can say that a structure expresses its being by the way it is structured. Analogously to the concepts of joy and sadness developed by Spinoza, structural modifications can increase or decrease the domain of adaptive interactions, which implies body states with a greater or lesser condition of interacting with other bodies without disintegrating itself. In this sense, we can say that they are equivalent to being more powerful (joyful) or less powerful (sad) in the face of the forces exerted by the environment (other bodies).

In the autopoietic unit, preservation of organization is an intrinsic need deriving from the way in which the parties are settled under specific correlations that result in the continuity of the circular dynamics of self-production. This idea corresponds to the concept of *conatus* as an affective mode that makes the body persevere in its being. Both notions follow a logic of immanent need devoid of purpose or final causality. The consciousness of *conatus* is called desire.

Joy, sadness, and desire form two orthogonal axes: one axis of the dynamics of increase or decrease in the power of action (joy and sadness) and another axis of the variation in the intensity of desire.

Spinoza deduces and derives from this basic framework all the other affects, which, combined with the ideas of such affects, will determine the course of movement of body and mind.

Human mind

To Spinoza, the human mind is constituted by the idea, which has the human body as its object and can perceive everything that happens in it. Thus, when interacting with other bodies, the human body suffers their forces and is modified (affection or structural transformation). The mind perceives these structural modifications and forms ideas of the affections experienced by the body under the action of external bodies. These ideas involve the nature of the human body and, simultaneously but indirectly, they also involve the nature of the body that interacts with us. Due to this, Spinoza states that “the ideas which we have of external bodies indicate the condition of our own body more than the nature of the external bodies”¹⁰ (p. 107).

The mind does not perceive the other bodies directly; it perceives only the body’s modifications (affections) resulting from interactions with other bodies and forms ideas of such modifications¹⁰ (p. 119).

In fact, we know no external body: we only know the ideas of the affections, that is, the modifications that our own body suffers when it interacts with other bodies. We do not access the world; rather, we only perceive how it affects us and, reflexively, we perceive how changes in the world caused by the interaction with our body affect us.



According to Spinoza, the mind perceives the affection in the body and the idea of this affection as an affect¹⁰ (p. 115). We perceive the affects and have ideas about them (ideas of the idea of affects). The movement of formation of ideas in the mind also follows a spiral circular direction, as an idea arises from a previous idea, that is, it does not come out of nowhere.

It is through the body that our mind (whose single object is the body and its affections) perceives the world, acts and interacts with it. Spinoza says that, when the marks left on the body are reactivated, they recall the affective state and the body structures of that interaction. Memories are ideas, records of affections that are associated through different mechanisms (analogy, synchrony, randomness, proximity, etc.) and form a network of records. The activation of a point makes the mind revive the affects connected to it.

In sum, we are driven by the force of emotions or affects and not by reason. In this perspective, there is no logical space for the idea of free will, only the logic of the bodies' forces. Reason is in a plane of intelligibility or understanding of the dynamics of the bodies' forces, nature and affects. However, being an idea in itself, reason is not translated as an effective force or a force that is capable of affecting the body. Affects or emotions are not modified by reason; rather, they are modified by the force of another affect or emotion. Due to this, knowledge, the rational understanding of the harmful consequences of drug use, does not affect the dynamics of the affects. Reason can only act if it establishes itself as a body affection, as a passion.

Ovid's astonishment regarding his question is extinguished because knowing what is better does not affect the path to be taken.

Addiction – a labyrinth of sad affects

To understand repeated drug consumption according to the logic of the dynamics of affects, we will revisit some steps.

Body movement occurs through the dynamics of affects (affections and ideas of affections). There are always at least two affects to be identified: desire combined with joy or with sadness. Thus, the act of consuming a drug can be driven by any one of these two compositions: desire/joy or desire/sadness (not by the drug). Both movements have the character of affirmation of the self: an effort to persevere in its being, as a result of desire. The body does not move in search for something external, as desire is not a crave for what lies outside; rather, it aims to persevere in being and, therefore, the body's movement is not determined by the drug.

On the other hand, we know that, due to structural determinism, the interaction with drugs does not result in an "instruction" to the body issued by the drugs. Instead, they function as triggers of body changes and of the internal disposition (body memory), resonating with the pair of affects (joy and sadness).

The person moves driven by desire (internal force). From the encounter and relationship with other bodies (not only the human body, but any body), which are forces external to their own body, the person experiences body affections. It is not the drugs that move the person to consume them and there is no final causality, only



efficient causality. However, when interacting with external bodies, drugs cause body affections and leave mnemonic records of such affections. These affections increase or decrease the activity of body parts (nervous system) and displace its internal dynamics, being perceived by the mind as alterations in consciousness and in perceptions. The mind does not understand the causes of its state but perceives the increased activity of body parts, inferring that the drug increases the power of action. Thus, it takes one part for the whole, forming confused ideas.

The encounter with drugs takes place within a context, in a web of relationships with many other external bodies and with the history of experiences and affective memories, which results in the person being submitted to a passion (joyful or sad). However, as it is an affect that moves only part of the body, it is not possible to say that there is an effective increase in the power of action.

If a drug combines with a body that is already in a vector of joyful affects, it reinforces desire and joy and increases in the power of action, expanding the expression of being. Drugs increase the activity of body parts that resonate with forces in favor of joy. As the forces are already directed at joy, the participation of drugs is summative, but accessory. When the effects of the interaction with drugs cease, theoretically, only joyful memories would remain – memories that affirm the power of action. And life would move on.

When desire combines with a vector of sad affects, we can understand that desire and the sad affect are in opposite directions, as the effort to persevere in being aims to preserve or increase the power of action. As sadness is an affect directed to the reduction of the power of action and being, desire is reinforced, in this case, by the imagination that drugs increase the power of action and, therefore, the stronger the forces of sadness, the greater the demand for drugs. However, as it is only a partial activation of the body, not an effective increase in the power of action, there is a temporary fluctuation of the affects that users perceive as relief (from sadness).

In this situation, after this relative increase in the power of action, when the interaction with drugs ceases, there is a return of the initial sad affects.

On the other hand, as drug use is semiotized in society as socially condemned and reprehensible, these ideas are accompanied by many other sad and intense affects, mostly guilt, shame and fear. These affects are not caused by the interaction with drugs; they originate in the web of socioculturally constructed values reproduced in interpersonal interactions. Thus, after the interaction with drugs ceases, the initial sad affect returns and other sad affects are added to it (guilt, shame and fear). Users call this second set of sad affects moral hangover, which would increase the force of the initial sadness.

With the increase in the force of sadness, desire reactivates the inadequate ideas (the imagination that drugs increase the power of action) in the same proportion of the force of sadness and sets in motion a new consumption, a new relief. When the drug's effects cease, the sad affects of guilt, fear and shame resurface and are reinforced, triggering a new moral hangover that adds to the sad affects of the previous cycle. These cycles form a circuit that has a circular dynamics:

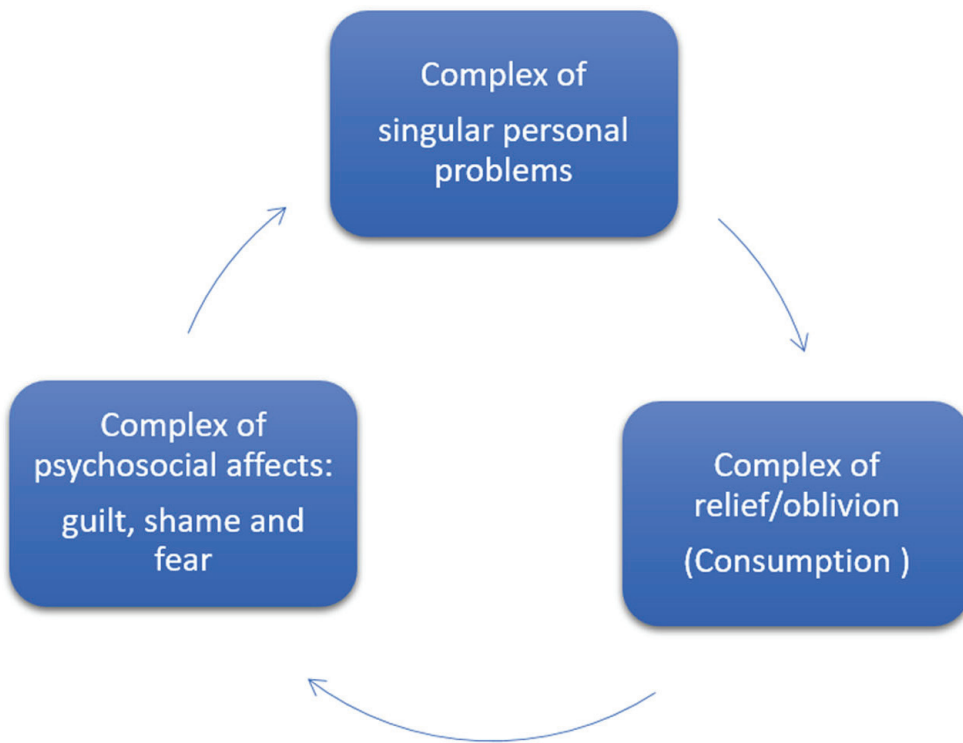


Figure 1. Circuit of circular dynamics

In this circuit, the person's perception is dominated by sad passions.

This circular dynamics is not constituted by identical repetitions. On the contrary, it is formed by recursive, spiral relationships in which sadness, the need for relief and the moral hangover tend to grow proportionally. The paradox is that, although the person is driven by desire towards increasing the power of action, the effect is a growing reduction of such power due to inadequate ideas, prejudices about causalities, about passions, the body, the brain, and nature.

The addiction circuit

This spiral circuit is an explanatory scheme of the addiction phenomenon. We identify in it three affective complexes that have distinct characteristics and enable appropriate interventions.

1. The first complex of sad affects is the personal complex, which originates in the personal history of interactions during life. It involves experiences lived in various spheres of life (social, cultural, economic, educational).

2. The second is the complex of floating affects, perceived as relief-oblivion, as the cessation of a malaise. Here, the recursive dynamics induces the body's adaptation to the drug's action, tending to decrease the perceived effects and to demand a greater amount for



consumption. This aspect has consequences that are not limited to biology because they imply a more significant expenditure of resources, increasing financial costs and their social consequences, which can also reinforce the sad affects of the third affective complex.

3. The third complex also consists of sad affects, but they are distinct from the first and the second complexes. This is the sociocultural complex or moral hangover, generated in historical relationships, in which interactions between individuals are grounded on the pairs of affects guilt/forgiveness, honor/shame, and fear/power.

Decomposition of the addiction circuit

Each affective complex requires actions according to the affects that are concretely in play. It is necessary to act in each complex in order to increase the force of joy and desire.

As a general strategy, it is necessary to perform an introduction to knowledge of the second kind, that is, knowledge of the causes and proportions of nature's forces. This implies changing the understanding of how the body and mind function, and comprehending the force of the affects and the role of rationality.

However, all such changes can only occur as processes. Thus, it is possible to initiate actions in each of the affective complexes, even if this is performed in a preliminary way. The actions can be simultaneous.

A general starting point that we have observed is the need for self-observation of one's own affects, the need for reflecting on oneself and on others - which is not a natural practice and must be developed.

I. Sociocultural complex: the moral hangover

Taking action to modify this core of affects is strategic in the care process because it directly involves the team of professionals who will act in the situation. Although the individual who grows up immersed in the sociocultural formation is the first to self-demand and to unleash guilt, shame and fear, we must not forget that professionals and family members are also part of the user's sociocultural formation and, due to this, they tend to reproduce the same affective games that blame, shame, and threaten the individual.

Thus, the force of these affects is extremely intense and needs to be reduced as soon as possible. Let's look more closely at each one of them.

Guilt

Guilt is based on the assumption that people can make free choices and direct their acts freely. This assumption makes it difficult to understand the dynamics of affects because it ignores the body's structural determinism in relation to the effective causes. This prejudice associates sadness with the idea of wrong choice or failure of judgment¹⁰ (p. 195).



When the person considers that the act of consuming drugs is the cause of the perceived damages and losses, they reprimand themselves and think they could and “should” have chosen another action, but “preferred” what would be more harmful, even though they are aware of the consequences and regret their choice, thinking they are guilty. This affect of guilt and regret has deep roots in the Judeo-Christian culture in the Western world and requires a continued deconstruction. To achieve this, knowledge of the second kind¹⁰ (p. 191) is necessary, about the causes, as well as the development of an ethic of responsibility acquired by the practical learning of the dynamics of affects and modes to be able to modify the course of these sad affects. The responsibility deriving from knowledge allows intervening in the dynamics of affects and getting out of the circular dynamics circuit, but guilt tends to reproduce it.

Shame

Shame is sadness that arises when the person imagines others observing and negatively judging their acts¹⁰ (p. 199). This affect is linked to the need of being approved by others and to the incapacity to recognize their own force of being. We must admit that, in the social sphere, reproofs actually occur and intensify sadness.

Fear

Fear is sadness that arises from the uncertainty of what will happen, from being scared of the consequences of one's own acts. There is fear that is the product of the disproportion of the forces existing between a body and the whole world, which is infinitely stronger and can destroy the body. Fear associated with inadequate ideas leads the individual to being away from other individuals, who would be the source of a greater power of action.

Sadness is also reinforced by a set of ideas such as self-deprecation, ideas of imperfection, defects and errors of nature, among others. The increase in the force of the sad passions leads to the restart of the addiction cycle.

Disarticulating the labyrinth of sad affects is a fundamental step to get out of this state of servitude. When guilt, fear and shame are de-potentiated, the sociocultural complex loses strength, facilitating the work in the personal complex.

II. Complex of relief-oblivion

This complex, in turn, involves a fluctuation of sad and joyful affects and the confusion of ideas. However, when the user understands the addiction circuit, they can understand drug consumption as an effect of the affective games and not as a personal choice, realizing that drug use is an affirmation of the force of being and, therefore, from this point of view, there is nothing to be condemned. In a way, the user can comprehend that using a psychoactive substance as a medication for sadness is a legitimate act of affirmation of life. On the other hand, it allows them to comprehend that there are other practical means to deal with sad affects. In particular, knowing the body's dynamics



points to the idea that modifying the body's state necessarily leads to a change in the affective state. In practice, this offers other ways to deal with sad affects - alternatives to drug use. For example, intense physical activities release endorphins that change the affective state of the body. Playing an instrument, dancing, painting or singing can, more or less strongly, modify the sad affects. Relief conducts are legitimate and valid (including drug use). On the other hand, it is necessary to consider, also, a "short circuit of despair" that we call oblivion. Many users report awareness of this "medicine use" in the search for relief, but some say that, when they obtain it, the memory of the moral hangover is inevitable and so intense and painful that leads them to resort to intensive use, generating a short circuit grounded on the idea of a compensatory catastrophe like "as the punishment is certain, let the crime be the worst possible" or "if the game is lost, let it be lost by a very high score, as long as it is worthwhile" or even on the idea that it is better to "let it all be lost and fail."

These ideations and affects configure a second moment, a short circuit of this relief complex, congruent with the situations in which the user starts a continued use for long periods of oblivion, far beyond the moments of relief. The understanding of these distinctions between the subgroups of affects also allows acting differentially.

III. The personal complex of affects

These sad affects stem from the singular history of each person and are connected to the addiction circuit in a contingent way. In other words, conjugation with the other two complexes is neither necessary nor a fate. Therefore, it is necessary to pay attention to the course of the interactions that ended in these sad affects. One way of exploring this complex of affects and dealing with it is to map the various dimensions of the user's life¹², seeking to identify how they constituted themselves and trying to compose interactions that increase the force of joy and desire.

By focusing on the dynamics of affects under the logic of determination by the forces of nature, by observing and studying it to identify its patterns and modes of functioning, one can develop mechanisms capable of modifying the course of the interactions that led to the sad affects. Although it is not possible to rationally command the affects, reason allows us to generate linguistic devices that transform it into self-interaction and, therefore, into an affect capable of interfering in the course of the affects, based on their very dynamics. Thus, it becomes possible to restrain, decrease, or partly annul the burden of sad affects that are in the origin of repeated drug consumption and compose the addiction circuit.



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Conflict of interest

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Apresentamos uma explicação alternativa para a noção de drogadição, refletindo sobre os motivos que levam uma pessoa a perseverar no consumo de drogas, mesmo sabendo dos malefícios decorrentes. Referenciado pelas obras de Humberto Maturana e pela teoria dos afetos na *Ética* de Spinoza, assumimos o pressuposto de que os seres humanos são movidos por paixões e formulamos o circuito dos afetos da drogadição. Identificamos nesse circuito três complexos afetivos: complexo singular pessoal, complexo de alívio/oblivio e complexo psicossocial, que formam uma dinâmica espiral de afetos tristes. Tais afetos compelem o indivíduo a continuar nessa dinâmica, e o papel das drogas passa a ser acessório. Cada complexo afetivo é caracterizado por afetos de origens distintas e a compreensão da particularidade e da especificidade de cada um organiza a ação de cuidado correspondente, a fim de interromper a dinâmica espiral do circuito.

Palavras-chave: Drogadição. Saúde Mental. Centros de atenção psicossocial. Redução de danos. Inovação em saúde.

Presentamos una explicación alternativa para la noción de drogadicción, reflexionando sobre los motivos que llevan a una persona a perseverar en el consumo de drogas, incluso sabiendo de los perjuicios que causan. Referenciado por las obras de Humberto Maturana y por la teoría de los afectos en la *Ética* de Spinoza, asumimos la presuposición de que los seres humanos son movidos por pasiones y formulamos el circuito de los afectos de la drogadicción. En ese circuito identificamos tres complejos afectivos: complejo singular personal, complejo de alivio/olvido y complejo psicossocial que forman una dinámica espiral de afectos tristes. Tales afectos compelen al individuo a continuar en esa dinámica y el papel de las drogas pasa a ser accesorio. Cada complejo afectivo se caracteriza por afectos de orígenes distintos y la comprensión de la particularidad y de la especificidad de cada uno organiza la acción de cuidado correspondiente, de forma que interrumpa la dinámica espiral del circuito.

Palabras clave: Drogadicción. Salud mental. Centros de atención psicossocial. Reducción de daños. Innovación en salud.