



The Relationship Between the Inner Speech and Emotions: Revisiting the Study of Passions in Psychology

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Abstract

This article tries to deepen in the Vygotsky's interfunctional analysis between the affections and the thought, with the purpose of finding the unit of analysis that captures the intersection between the affective and the other functions of cognition, thus completing a Vygotskian theory of emotions. In this article, we have called that dimension the *sense*. Sense constitutes the meeting point and the unit of analysis of thought and emotions. The experience of sense is partly affective and cognitive and has not been incorporated into the research that has studied the relationship between affects and other functions of cognition.

Keywords Emotions, theory of passions · Thought · Interfunctional analysis

Introduction

[...] In addition, the fact is that no one has yet determined what the body can... They will say, however, that it is not possible for the single laws of nature, considered as purely corporeal, to arise the causes of buildings, paintings and things of a similar nature, and that the human body, if not determined and oriented by the soul, would not be able to build a temple. But I have already shown that they do not know what the body can do, or what can be deduced from the mere consideration of its nature [...] and that they themselves know from experience that by the single laws of nature many things believed that they could be done except under the direction of the soul (Spinoza, 1667/1890, p. 98–100).

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With this quote from Spinoza, Vygotsky begins his famous treatise on *the psychology of art*. In this famous extract, inner force is what motivates the action of the body and human creation, alluding as the ultimate cause of the human beings' motivations, the affections, and passions of the soul. This is one of the clues in the work of Vygotsky that show the importance of the human passions in the entire organization of the psychological system.

From the postulates of Descartes (1649/2005) and Spinoza (1667/1980), a tension in the understanding of the affections of the human being has been evidenced. While Descartes (1649/2005) proposes a biological theory of emotions based on the mind-body dualism where affections are a correlate of organic brain structures, for Spinoza (1667/1980), emotions constitute a complex capacity of mental life, an expression of the soul, which determines a large part of the human experience and the whole psychological system.

In much modern research on emotion, emotions have been treated as an independent phenomenon and separated from the all psychological system (Wallbott 1998; Feldman-Barrett 2006, among others), based mainly on a Cartesian tradition (Ekman 1993; Wallbott 1998; Aviezer et al. 2012, among others). Vygotsky (1934), adhering to a Spinozian perspective of emotions, tries to develop in his work an articulation in complex functional units that integrate the affect with all the other psychological functions of the human being.

Interfunctional analysis—namely, the union and intersection of different psychological processes as a unit of analysis for development—is undoubtedly one of the main contributions of Vygotsky's work. Vygotsky manages to show that psychological analysis must be carried out in *units* and not in *components*. By units, Vygotsky refers to elements of phenomena that manage to capture the condensation of psychological processes. An example of unit of analysis is the study of the meaning or meaning of the word, as a unit of analysis of the intersection between thought and language. Towards the end of his work, Vygotsky (1934) conceived an interfunctional theory of emotions; however, his early death did not allow a greater development of his understanding of the affective dimension of consciousness and the relationship of emotions with total psychological system.

Towards the end of Vygotsky's work, there is evidence of a shift towards Spinoza's theory (Jornet and Cole 2018). However, the influence of the Cartesian theory of emotions has affected much of the research in emotion in modern psychology, thus rendering invisible the Spinozian theory—taken up by Vygotsky—which could provide greater knowledge of the real complexity in the phenomenon of the affective sphere of consciousness.

In this paper, we try to shed light on the relationship between emotions and other psychological phenomena, specifically, inner speech. The objective of this work is to deepen the interfunctional analysis between the affections and the thought, with the purpose of relieving the unit of analysis that captures the intersection between the affective and the other functions of cognition, deepening in the Vygotskian theory of emotions.

This article constitutes a contribution to the understanding of emotions in psychology and to experimental developments in the study of emotion, understanding the emotion as an intrinsic aspect of cognition, an expression of consciousness, and not as an epiphenomenon of organic structures. With this article, we try to re-think the study of emotions in psychology, reviving the Vygotskian contributions to the study of affects, barely incorporated in the new theorizations about the emotions of the human being.

The Theory of Passions in Philosophy: Spinoza vs Descartes

Descartes has been the most influential philosopher for the study of emotions. In his *Treatise on the Passions* (1649), he argues that a passion is everything that is done or occurs in some subject, and this passion is always action in some sense. That is, what in the soul is a passion in the body is an action that is why the best way to get to the knowledge of the passions is to examine the difference that exists between the soul and the body. Therefore, to know the passions of the soul, it is necessary to distinguish its functions from those of the body.

For Descartes (1649/2005), heat and movement come from the body and thoughts belong to the soul. Believing the absence of the soul is what causes the body to cease movement and heat; it is an error, because all movement and heat comes from the body, so it should be thought that when the soul is absent, it is because of the heat ceases and the organs that serve to move the body become corrupted. This means that, following the ideas of Descartes, all psychological movements—the soul—have a physiological sustenance. In this sense, the passions would be a correlate of the movements of the body and in this way; the movements that we make only depend on the conformation of our members and the course that the spirits follow naturally in the brain, the nerves, and the muscles (Descartes 1649/2005).

For the above, the passions of the soul can be defined as perceptions, feelings, or emotions of the soul that refer particularly to it and that are caused, sustained, and fortified by some movement of the spirits. They can be called perceptions when thoughts are designated that are not actions of the soul or wills. They can be called feelings, because they are received in the soul in the same way as the objects of the external senses, and even better, they can be called emotions of the soul because of all the kinds of thoughts that the soul can have, none stir it up and it moves her as strongly as these passions (Descartes 1649/2005).

However—from the perspective of Descartes (1649/2005)—there is a small gland in the brain where the soul exercises its functions more particularly than in all the others and which is located in the interior, in the center of its substance. Then all the impressions come together in this gland by means of the spirits that fill the cavities of the brain. From this gland, the soul radiates to the rest of the body, through the spirits of the nerves and even the blood. This gland drives the spirits into the pores of the brain and leads them through the nerves to the muscles, through which it makes the limbs move. The spirits contained in the cavities of the brain (Descartes 1649/2005) then mainly produce the passions. In the words of Descartes:

From what has been said so far, it follows that the last and closest cause of the passions of the soul is none other than the agitation with which the spirits move the small gland in the middle of the brain. But this is not enough to distinguish them from each other; we must look for its sources, and examine its first causes; Now, although they can sometimes be produced by the action of the soul, which is determined to conceive such and such objects, and also only by the temperament of the bodies or by the impressions that are fortuitously found in the brain, as occurs when we feel sad or happy without knowing why, however, from what has been said, it seems that all can also be aroused by the objects that move the senses, and that these objects are its most common and main causes; from which it results that, to find them all, it is enough to consider all the effects of the objects (Descartes 1649/2005, Art. 51).

Descartes (1649/2005) establishes six primary emotions (admiration, love, hate, desire, joy, and sadness), all generated by the movements of the small gland that lives in the

center of the brain. Now, the same impression will not produce the same passion in all people, since Descartes understands that not all brains are arranged and organized in the same way.

In this way then it is possible to observe how Descartes proposes a biologist's theory of the passions. For him emotions have a physiological substratum and nothing manages to delve into the complexity of the affective experience in consciousness. While for Descartes passions are good by nature, he argues that their misuse or excess should be avoided. For this it is necessary to carry out the exercise of separating in the human being us the movements of the blood—the body—and of the spirits of the thoughts—the soul, since these movements aroused in the blood by the objects of the passions they occur so immediately and suddenly as a result of the impressions received by the brain and the disposition of the organs, the movements of the soul not contributing at all.

Finally, Descartes (1649/2005), in the last paragraph of his treatise, emphasizes the importance of the separation between passions and reason, arguing how reason must achieve the domain, regulation, and modulation of passions. In the words of Descartes:

And, finally, the soul can have its pleasures apart; but those which are common to the body depend entirely on the passions: so that the men whom they can most affect are capable of extracting to this life the sweetest juices. Truth is that they can also find in it the maximum bitterness when they do not know how to use them well and fortune is against them; more at this point is where sanity has its chief utility, for it teaches to dominate passions in such a way and to handle them with such skill, that the evils they cause are very bearable, and that even from all of them joy can be extracted (Descartes 1649/2005, Art. 212).

This extract depicts the Cartesian dualism and the distance it establishes between thought and affection. Each process has its rules and forms of operation and have no link whatsoever, except to achieve mastery of the reason over emotions. However, it lacks a functional understanding that manages to describe the internal relationship between one and the other during human experience.

For Spinoza (1667/1980), on the contrary, the emotions are the affections of the body by which it increases or decreases, it is favored or not, the power of acting of that same body. In his philosophical proposal, emotions include the soul and the body, unlike Descartes (1649/2005), since soul and body are two aspects of the same reality. For Spinoza (1667/1980), emotions constitute the effort of the mind to persevere in one's being for an indefinite time. This effort is called will when it only refers to the mind and is called desire when it refers to the mind and the body at the same time. In the words of Spinoza:

The soul, inasmuch as it has clear and distinct ideas, as soon as it is confused, strives to preserve its being with an indefinite duration, and is conscious of that effort of its own (Spinoza 1667/1980, Proposition IX, p. 132).

In the Spinozian theory, there are three fundamental emotions: will, joy, and sadness. Joy is the emotion by which the mind alone or united to the body achieves greater perfection, and sadness is the emotion by which the mind descends to a lesser perfection. Desire becomes the confluence between what we want, from the mind and the impulse that we experience from the body.

Passions are inadequate ideas because they are produced by external causes and not internal; that is, they are reactions to the actions of other bodies. Affects, on the other hand, are affections of the body, in which our potency or vitality increases or decreases (Spinoza 1667/1980). The soul and the body are one and the same thing, which is conceived, already under the tribute of thought. The order of actions and passions in our body correspond by nature to the order of the actions and passions of the soul (Spinoza 1667/1980). From Spinoza's perspective, an affection is:

A confused idea, in virtue of which the soul affirms of its body or of some of its parts a force of existing greater or lesser than before, and in virtue of which also, once given that idea, the soul is determined to think such thing more well than other (Spinoza 1667/1980, p. 160).

The human being, from the perspective of Spinoza (1667/1980), never has absolute power over himself. Like other natural things, emotions depend on causes, only through which they can be understood. Emotions are the modifications (affections) of the body, whether it increases or decreases its power to act.

For Spinoza (1667/1980), when an emotion affects the body, it simultaneously and similarly affects the mind. In Spinozian philosophy, just as a body condition cannot be controlled, except for an opposite and greater bodily cause, so then, an emotion cannot be controlled except by an opposite and stronger emotion. In the words of Spinoza:

Given that, an affect is an idea with which the soul affirms a force to exist in its body greater or less than before, it is that in order to repress or suppress an affect another condition is needed at the same time that increases or decreases its power of act (Spinoza 1667/1980, p. 192).

This is how in Spinozian philosophy, unlike in Cartesian philosophy, emotions are understood as an uncontrollable life force, which expresses the desires and wills of the soul, which is directly linked to the body. The idea of the mind-body connection in the experience of emotions is manifested in the following Spinozian proposition:

The idea of everything that increases or decreases, favors or represses the power of our body to work, in turn increases or decreases, favors or represses, the thinking power of our soul (Spinoza 1667/1980, Proposition XI, p. 133).

Spinoza (1667/1980), unlike Descartes (1649/2005), does not determine the emergence of passions to a cerebral structure, but to the expressiveness of the soul. Emotions are a complex totality of the complete experience and involve all aspects of the human being, not separable or divisible with the rest of the functions of the discharge and the body.

Vygotskian Criticism of the Study of Passions in Contemporary Psychology

In *Theory of Emotions*, Vygotsky (2004) reviews the organic theory of emotions. The organic theory of emotions proposes that these are the result of physiological variations in the organism. The argument put into discussion by Vygotsky is as follows:

The feeling could not exist without its physical manifestation. Suppress in fear all physical symptoms, return the calm to the agitated pulse, to the look its firmness, to the complexion its normal color, to the movements its rapidity and security, to the tongue its activity and the thought its clarity, and what would be left of the fear? (Vygotsky 2004, p. 18).

That is, for the organic theory of emotions, the affections do not exist without their physical manifestation that gives rise to them and the sequential chain that produces an emotion would be environmental stimulus-physiological reaction-emotion.

For Vygotsky, unlike for the organicist model, the somatic and psychic markers move in the opposite direction and it is their intersection that generates the emotional experience. That is to say, in human experience, the psychological phenomena displayed by the interaction with the environment and the organic activation produced by them advance in their development in opposite directions until they are at a midpoint in which the total emotional experience unfolds.

In this sense, they constitute poles of the same axis that articulate experience. Vygotsky proposes that the biologicist theory of emotions is incapable of seeing in them what they have properly human: the meaning that each of them has for the person who feels them; that is, the influence of consciousness on the experiences of the subject, understanding the human being as a historical subject and understanding emotions as part of their development, with qualitative and quantitative changes during the conditions and contexts of ontogenetic development.

For Vygotsky (2004), a biologicist theory of emotions—understood as a modern theory of emotions, used largely in studies of gestures and emotions in contemporary psychology—is insufficient theoretically and psychologically. The modern understanding of emotions, from the perspective of Vygotsky, is a-historical; that is, it takes emotions out of contextualized and historical psychological development, thus constituting an inheritance of the Cartesian theory of passions. In the words of Vygotsky: “the parallel solution of the psychophysical problem - dualism between the body and the spirit - inevitably leads us to the most fearsome thought of Descartes: the total separation of consciousness and life” (Vygotsky 2004, p. 199).

For Vygotsky (2004), the biologicist theory of emotions says nothing about the relation between the soul and the affective life, between the deep states of consciousness and emotion, and between the discharge and the thought that generates it. From Vygotsky’s perspective:

The whole problem lies in the following: how our consciousness and our real and living existence are linked. If this nexus is not understood, consciousness inevitably appears as an epiphenomenon, a ridiculous and useless appendix of the automatic activity of our body, as the passive reflection of the changes that occur in it, in the best of cases as the chain of hallucinations of a spirit sunk in the dream (Vygotsky 2004, p. 197–198).

Vygotsky (2004) argues how contemporary psychology has completely deprived the soul’s passions of meaning and eliminated all hope of understanding one day the vital meaning of passion and with it of all human consciousness. This elimination would already be contained in the Cartesian theory of the passions. That is to say, in the different passages of the Vygotskian work, the intuitive need to understand the deepest states of the psychic life and its relation with the conscience is appreciated, which from its perspective is not achieved in the contemporary theory of emotions. Vygotsky again manifests the existence of an inner vital force characteristic of animate human nature that cannot be understood or considered in the analysis of psychological functioning, which would give new insights into the existence of a

greater expressive dimension in which emotions would be only one of its manifestations in consciousness.

As stated earlier, the biologicist theory of the passions is based on the modern theory of emotions used in a large part of studies on human gestures in psychology. This model uses the notion of representation, as a way to study human passions. External markers represent internal affective states, establishing a causal relationship between the effects and their external manifestation. From the perspective of Werner & Kaplan (1963), studies based on the notion of representation emphasize the view of the observer or the researcher, and not the first person, that is, the subject who experiences the emotion. From the first person, emotions are lived and not represented. This alludes to a theory of passions based on presentation and not on representation perspective (Werner & Kaplan 1963; Shanon 2008).

Regarding this, and in relation to studies on emotions and gestures, it is important to consider that affective-emotional states are a constituent part of human expression, so that a theory of emotions is a fundamental part of the theory of human expression, but not necessarily maintain a theoretical or experiential equivalence. Human expression is broader than just emotions, although emotions are effectively expressive aspects of mental life and human consciousness (Fossa 2017). This means that human expression is a manifestation of the deepest states of consciousness, that is, of the idiosyncratic subjectivity of the self, which includes emotional aspects, but also other aspects of individual consciousness.

Following this argument, a theory of expression that only incorporates the affective-emotional sphere of the human being would be an incomplete theory of expressivity. Human expression—interpreting Vygotskian approaches—manifests the complex relationship between consciousness and the soul in all its dimensions and not only the bond between affective-emotional variations of consciousness that are generated from the variations of the soul (Fossa et al. 2018a).

On the other hand, a large part of the theories of emotions are based on an evolutionary and biologicist tradition—for example, Darwin's theory on the evolution of species, James and Lange's theory of emotions, and the Descartes' theory on the passions—in that they propose a biological basis of affective behavior.

Through his criticism, Vygotsky shows the danger of understanding the soul as lifeless and alien to all bodily manifestation, emphasizing the need to understand the complex, dynamic and dialectical relationship between mental life and its bodily manifestation, a central argument for thinking about a Vygotskian theory of human expressivity and emotions.

For Vygotsky (2004), the great problem of the theory of the emotions in modern psychology is to have absolutely deprived of sense the passions of the soul and to have eliminated all hope of understanding one day the vital meaning of passion and with it of all human consciousness. The problem of the Cartesian model of the passions is that the soul is completely understood outside of life, without participation in human corporality. In his work on passions, Vygotsky (2004) reports that the study of passions has been mainly divided into two radically opposed aspects. On the one hand, human emotions would be an innate phenomenon, existing from birth, rooted in animal nature, that is, archaic and rudimentary organic sensations. And, on the other hand, we have approximations to the understanding of emotions as independent of the total psychological system, as mind hallucinations devoid of life, which have nothing to do with the wholeness of the functional organization of consciousness. From the perspective of Vygotsky (2004) in the earliest periods of ontogenesis, the emotions respond essentially to biological needs, but quickly, with the appearance of significance processes committed to the socialization of the child, emotions begin to be

expressed in relation to needs constituted in the social life of the child, specifically human needs. In the words of Vygotsky:

The misfortune is that James solves the question of consciousness, and particularly of emotions, as contemporary psychology does, making the absolute impossibility of finding a rational link between the passions of the soul and the real life of man. That is the reason why James does not know how to pass from our thoughts, our emotions and the spiritual life to the real life of man with all the inexhaustible richness of his content (Vygotsky 2004, p. 198).

Moreover, it continues with greater emphasis proposing the challenges for the future psychology regarding the construction of a true psychological theory of the passions that allows to describe and to understand in depth the complexity of the human conscience:

It is evident that our task is to put the theory of passions at the height of all the other topics in contemporary psychology. To speak more clearly: our goal is to create the first foundations of a psychological theory of affections that is fully aware of its philosophical nature, that it does not fear to make higher generalizations, appropriate to the psychological nature of the passions (Vygotsky 2004, p. 58).

In short, emotions are dynamic states that simultaneously involve the physiology, subjective experiences, and behavior of the subject. The emotions appear as an expression of the level of commitment of the needs of the subject with the different activities and forms of relationship in which he expresses his daily life. The needs are the emotional states that accompany and/or develop in the different spaces of activity and relationship of the subject.

Vygotsky's Interfunctional Analysis

Vygotsky (1934) begins his last work thinking and language emphasizing the problem of the relations between psychological functions and the unit of analysis that involves the study of consciousness. In the first passages of his text, highlights:

The notion of consciousness as a whole and of the relationships between its different functions, inseparable in the course of activity, is nothing new for current psychology. However, the unity of consciousness and the connection between different functions usually represent in psychology a postulate rather than an object of investigation (Vygotsky 1934, p. 15).

With this, Vygotsky wanted to emphasize that the psychology of the time was focused on the study of isolated psychological functions, leaving interfunctional connections as constants, away from the field of research and made invisible as objects of studies. With this, it is clear that the problem of connections between psychological functions is the least studied part in modern psychology and in research in cognition.

Modern psychology, says Vygotsky, establishes the relationships between psychological functions as invariant. That is, the perception is always linked in the same way to memory; memory is always in the same way with attention, and in the same way with thought. For Vygotsky (1934), the relationship between thought and language reveals the complex,

dynamic, and dialectical relationship in time established by psychological functions. The last chapter of his work is totally dedicated to explaining how language and thought are intertwined during psychological development. In the words of the author: “their growth curves come together and separate repeatedly, cross each other, during certain periods they line up in parallel, even melting at some point, then again bifurcating” (Vygotsky 1934, p. 91).

From this perspective and following Alessandroni (2017), there is no causal relationship between one psychological function and another, nor a strict relationship of qualitative improvement. That is, written language does not constitute the advanced form of oral language and adult creativity does not constitute an improved version of creativity in childhood. This means that, what differs between different evolutionary moments are the changes in the interfunctional relationships of the whole psychic system, which re-organizes the whole psychological system. Psychological functions, by establishing a close and dynamic relationship with other functions, change their quality by appearing almost as previously unknown functions, but emerge due, specifically, to the power and possibilities that interfunctional links provide. In human development, then, it is the process of permanent reorganization of the interfunctional links that make the entire psychological experience move from one state to another. In the words of Vygotsky:

In the process of development and in particular in the process of historical development of human behavior, not so much change the functions as we have studied previously, but its structure, not so much the change of its movements, as the change and the modification of the relationships of the functions among themselves, new groupings arise, which were unknown in the previous stage. The emergence of these flexible relationships, in which the functions are established with each other, we will call the psychological system (Vygotsky 1982, p. 101).

Thus, Vygotsky (1934) emphasizes the study of cognition in units and does not break down its components. In the study of the elements, it leaves scientists no alternative but to establish purely external relations, as if they were totally independent processes, without understanding the internal relations they establish among themselves.

Vygotsky (1934) proposes that the word is not a mechanism of expression of thought, but the place where thought ends or ends. This means, returning to the Vygotskian hypothesis, that there is a dimension of experience where thought takes place without language. That is, thought is a process that requires semiotic mediation for its expression, in this case, the word, while at the same time, thought is the mediating tool of the experience itself. In another moment, Vygotsky complements:

Language does not express pure thought, thought is restructured by transforming itself into language. Thought is not expressed in the word, but is realized in it. Thus, the processes of development of the semantic and phonetic aspects of language, directed in the opposite direction, are in essence one, thanks precisely to their opposite directions (Vygotsky 1934, p. 298).

In this extract, Vygotsky emphasizes the interfunctional relationship between thought and language. Thought is done as language is used. That is, thought and language unfold each other in real time during the experience, intertwine and cross over on various occasions during the microgenetic and ontogenetic development. The thought is realized as the words are found, and as the thought develops, the words appear. In this way, thought and language follow opposite microgenetic paths—that is, from the phoneme to the semantic, and from the semantic to the phoneme—and it is their intersection that generates the so-called verbal thought.

For Vygotsky (1934), the unit of analysis for the study of the interfunctional connections between thought and language; that is, verbal thought is the meaning of the word. In the last chapter of his work, he declares:

We have found the unity that reflects the union of thought and language: the meaning. The meaning of the word is the unity of both processes, which admits no further decomposition and about which one cannot say what it represents: a phenomenon of language or thought. A meaningless word is not a word, it is a hollow sound. Therefore, the meaning is the necessary feature, constitutive of the word itself. The meaning is the word itself seen from an internal aspect. Therefore, we can consider it with sufficient foundation a phenomenon of language. However, in the psychological aspect, the meaning of the word is no more than a generalization or a concept. Every generalization, every formation of a concept constitutes the most specific, the most authentic and unquestionable act of thought. Therefore, we have the right to also consider meaning as a phenomenon of thought (Vygotsky 1934, p. 288–289).

With this extract, Vygotsky (1934) refers that the meaning is the meeting point between thought and socially internalized language. The meaning is, then an internal and external phenomenon at the same time. In the meaning of the word condenses the deepest elements of consciousness, namely, the motives of thought and the external aspects of the social and cultural context.

According to Wertsch (1988), it is necessary to find a unit of analysis, a “microcosm” of consciousness that reflects all its aspects, that accounts for the interfunctional complexity of it; in this sense, it is considered that it is the meaning of the word that meets such characteristics. According to Wertsch (1988), the meaning of the word as a unit of analysis has limitations that do not comply with the methodological requirements imposed by Vygotsky for the units of analysis. In other words, it does not serve as a microcosm of the interfunctional relations of consciousness, since it does not encompass either volitional or affective aspects of it (Wertsch 1988; Wertsch et al. 1997).

In other moments of his work, Vygotsky has tried to shed light on other possible interfunctional relationships, as is the case of emotions and thought. However, the link between thought, language, and the passions of the soul was not developed in depth in his works. In the following passage, Vygotsky gives some elements for the interfunctional relation between affections and thought.

[Lewin] does not know the dialectical rule that, in the course of development, the cause and consequences change places, that once the higher psychic formations have arisen, based on certain dynamic premises, they exert a retroactive influence on the processes that originated them; that in development the lowest changes at the top, that in development they change not only the physiological functions by themselves, but first, the inter-functional nexuses and the relations between the different processes vary, in particular, between the intellect and affection. Lewin analyzes affection on the margins of development and on the margin of the relationship with the remaining psychic path (Vygotsky 1989, p. 217).

For Vygotsky (1934), the affective sphere of consciousness must not be separated from the study of other psychological functions, and this is the central point of the study of psychological experience. Although Vygotsky (1934) emphasizes the relevance of focusing research on this connection, he also highlights how this has been the error of modern psychology. Vygotsky’s development on emotions was not deep or sufficient and there are only extensions of what could

have been his work with respect to emotions (González-Rey 2000; Alessandrini 2017; Wertsch 1988, among others). The unit of analysis of the interfunctional connection between thought and language has been described in depth in his work; however, the unity of analysis between affect and thought is a challenge not yet fully resolved in the literature. However, Vygotsky (1934) declares the relevance of not separating the affect from the rest of consciousness and that only through the understanding of the functional networks existing between the passions and other functions of consciousness is it possible to understand the deeper psychological nature of the human being. In his latest work, Vygotsky declares:

As is known, the separation between the intellectual aspect of our consciousness and its affective aspect constitutes one of the most serious basic defects of all traditional psychology. This separation gives rise to the thought is transformed into an autonomous flow of ideas that think themselves, to be segregated from all the fullness of life, the impulses of interests, and the vital inclinations of the subject who think, or else, it turns out to be a completely useless epiphenomena, incapable of modifying anything in life and behavior, or else it becomes a primitive, autonomous and unpredictable force that, by interfering in the life of consciousness and in the life of the personality, influences them in an inexplicable way (...) Who separates the thought of the affection, closes to be able to explain the causes and reasons of the thought and, on the contrary, loses the possibility of understanding the influence of the thought on the affective plane of the consciousness (Vygotsky 1934, p. 24–25).

The Relationship Between the Passions and the Inner Speech

Following the interfunctional analysis, we now have to develop our understanding of the relationship between the thought or inner speech and emotions, or the relationship between the affects and the wholeness of psychological system. Although Vygotsky does not develop in depth the relationship of affection and intellect, if he gives lights in his work thought and language how to get to this relationship.

In order to find this interfunctional link, as Vygotsky has developed in his work, we must not understand the independent and isolated essences of each phenomenon separately—Vygotsky has already managed to develop it in respect to human thought and language—but understand the internal bond and its unit of analysis, one that integrates aspects of both thought and affective aspects. In this sense, we must get rid of the classical understanding in psychology that proposes thought and affection in a relationship of unilateral dependence (González-Rey 2000), since nothing suggests us of the dynamic, dialectical, and bidirectional relationship of affection and human thought. In the words of Vygotsky:

Actually, recognizing that thinking depends on affection means doing something: turning the theory of T.F. Gerbardt, who deduced, from the laws of thought, the nature of feeling. In order to advance further, it is necessary to do what has always been an indispensable tradition of the passage from metaphysical study to the historical study of phenomena: it is necessary to analyze the relationships between the intellect and the affect that form the central point of the whole problem that interests us not as a thing, but as a process (Vygotsky 1989, p. 227).

In the work of Vygotsky, the meaning as a unit of analysis of thought and language arises; however, the author lets glimpse the experience as a unit of human development in general. Experience is, according to Vygotsky (1934), the affective relationship of the human being and its context. The experience represents the indissoluble unity of external and internal elements, which are expressed indissolubly in an integration of cognitive and affective aspects. The integration of the cognitive and the affective is an idea present throughout the Vygotsky's work, which demonstrates the interest in a psychology capable of integrating aspects that had previously been studied in a fragmented way within psychology (González-Rey 2000).

The challenge in psychology is then to develop an integrative model between the development of affection and the word. In short, the question is how the development of language is related to the development of emotions or how the affects influence the development of thought. Vygotsky gives clues to understand this relationship at the beginning of thought and language:

The existence of a dynamic system, represented by the unity of the affective and intellectual processes, shows how any idea contains, transformed the affective attitude of the individual towards the reality represented by that idea. It also allows to discover the directional movement that starts from the needs or impulses of the individual towards a certain intention of his thought and the inverse movement that starts from the dynamics of the thought towards the dynamics of the behavior and the concrete activity of the personality (Vygotsky 1934, p. 25).

Following an essentially Vygotskian argument, causes and effects change permanently in development, generating a constant interaction between a psychological process and another, in this case, between the intellect and emotions. The development of the word generates a qualitative development of cognition and that makes emerge a greater complexity in the affections. Affects or emotional experience, in turn, develops and increases in complexity, thus generating qualitative changes in the development of the word and the intellect. The word nominates the affection, and the affection, therefore, is channeled in thought through the word. The word and the thought allow thinking about the affections, even to differentiate them, what facilitates the affective regulation. On the contrary, the affection originates the causes or origins of the thought and the word in the conscience. The development of language and thought channels, deep down, the development of emotions.

Deepening in these same ideas, and following the argument of Vygotsky (1934) regarding the existence of a pre-verbal phase of thought and a pre-intellectual phase of language, it would be possible to think about a pre-affective phase of language and pre-verbal phase of affection. This is an affection without words and, on the other hand, a words devoid of all affectivity. This means that the relationship between affect and inner speech differs and fluctuates in the course of experience. In some moments, the inner speech is full of affection, but in other moments, the words are expressed separately from the affectivity. While, on the other hand, the affect in some moments achieves mediation in words while at other times the affection is separated from verbal mediation. This does not mean that the affect does not play an important role in cognition before the emergence of the word, on the contrary, the relationship between affect and thought is complex, dynamic, and more direct than the relationship between the word and the affectivity. Affection and thought go through opposite microgenetic paths, from affect to thought and from thought to affect, and in that, space the relevance of the relationship between affectivity and cognition is expressed before the emergence of the word.

Vygotsky (1934) develops a comprehensive model from what he called everyday concepts and scientific concepts. Technical words learned through an instructional process are transformed into words of everyday use, while, on the contrary, everyday words learned in child development become scientific when the technical meaning of the concept is understood. That is to say, the daily concepts and scientists cross microgenetic paths in opposite directions.

Using this Vygotskian finding, it is also possible to think of opposing microgenetic paths between affect and thought. The thought advances to the affective sphere, while the affection advances towards the thought, being both in which it seems to be the unit of interfunctional analysis between the emotions and the thought: the sense. The word felt and the expressive thought seem to be the unit of interfunctional analysis between affection and thought (Vygotsky 1934; Cornejo 2012; Cornejo 2015; Fossa 2017).

The meaning of the word seems to be the unit of interfunctional analysis between thought and language, while the sense seems to be between thought and affect. From the perspective of Cornejo (2012, 2015), it seems that the Vygotskian theory tried to find the holism of the psychological experience in the meaning; however, this unit of analysis ignores affective aspects that are incorporated in subsequent works to Vygotsky (Cornejo 2012; Wertsch 1988; Fossa 2017; Fossa et al. 2018a; Fossa et al. 2018b).

Cornejo (2004) has proposed that the concept of meaning in psychology has undergone an evolution and transformation. With the influence of linguistics, the meaning has been understood from an associationist perspective (Cornejo 2004, 2012). At some point in the history of psychology, the meaning of the word, a phenomenon that alludes to a first-person understanding of the experience, came to be understood from the third person (Cornejo 2004). That is, the word is what it means, what it represents, lacking expressive aspects of the speaker (Fossa et al. 2018b). In the words of Cornejo:

I have argued that overcoming the contradiction between the two uses of meaning requires us to realize the perspective taken towards the intentionality of consciousness in both language games: when using linguistic meaning referring to meaning-in-itself, one observes the phenomenon from outside the intentional experience of the subject who understands; when one talks about meaning-making or making sense, one observes the phenomenon from within the experience of meaningfulness of the subject who understands (Cornejo 2004, p. 22).

From the perspective of Cornejo (2012), the tension between these aspects grows in the last passages of thought and language, where the distinction between meaning and meaning becomes explicit. In the words of Vygotsky:

The meaning of a word is the sum of all the psychological events aroused in our consciousness by the word. It is a dynamic, fluid, complex whole, which has several zones of unequal stability. Meaning is only one of the zones of sense, the most stable and precise zone. A word acquires its sense from the context in which it appears; in different contexts, it changes its sense. Meaning remains stable throughout the changes of sense. The dictionary meaning of a word is no more than a stone in the edifice of sense, no more than a potentiality that finds diversified realization in speech (Vygotsky 1934, p. 244).

Cornejo (2012) proposes that meaning is an unstable, dynamic, and fluid whole. It varies from one context to another, and between one meaning and another. The meaning, then, is the phenomenologically experienced meaning (Cornejo 2012). That is, the felt experience.

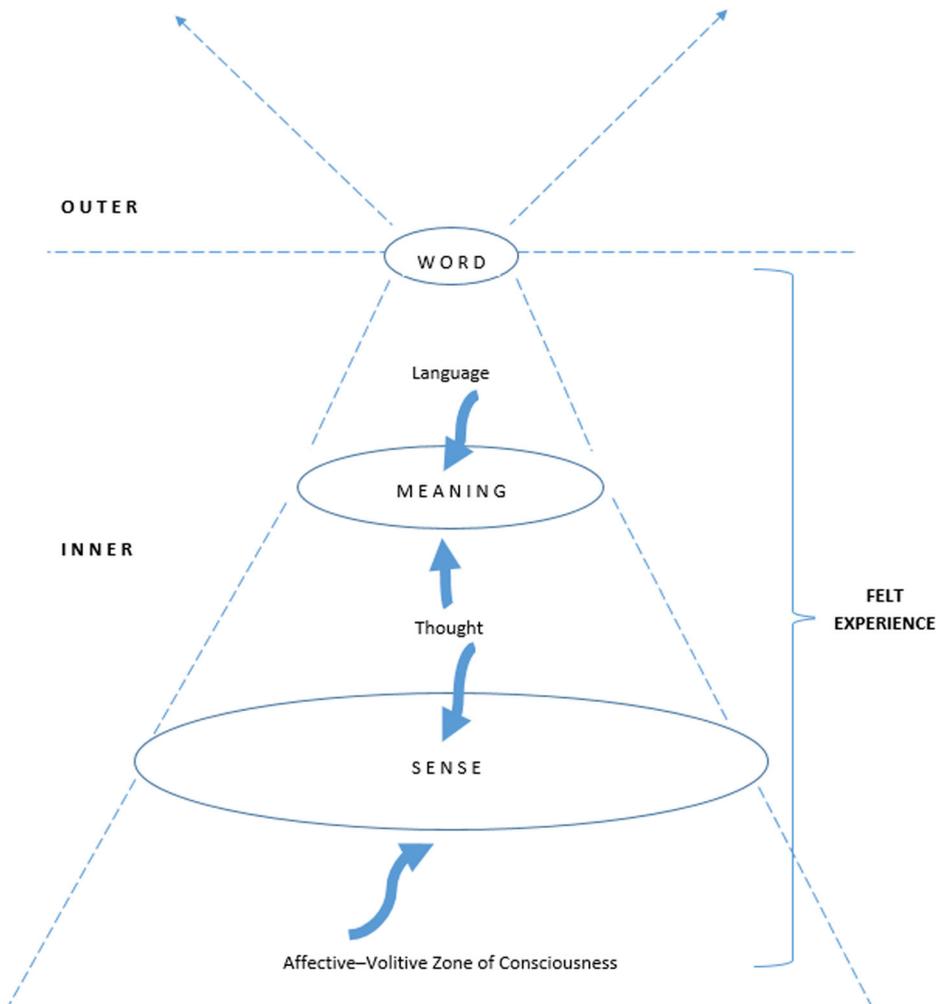


Fig. 1 Sense as unit of analysis between thought and affective zone of consciousness

In short, the relationship between affect and thought has been developed in two main elements. In the first place, it has been proposed in the present work that the unit of analysis that presents the intersection between thought and affect is the sense; that is, the word felt, the expressive thought and the embodied experience.

On the other hand, following the Vygotskian argument regarding the development of psychological functions that follow a microgenetic path in opposite directions, it is possible to think of sense as the point of contact: from the affective sphere of consciousness to thought and from thought to the affective sphere of consciousness. That is, the experience of sense constitutes the realization of two experiences of development that move in opposite directions.

Figure 1 shows the path from the affective zone of consciousness to the word. In this scheme, meaning is expressed as a unit of analysis between language and thought and, on the other hand, sense as a unit of analysis between thought and emotions.

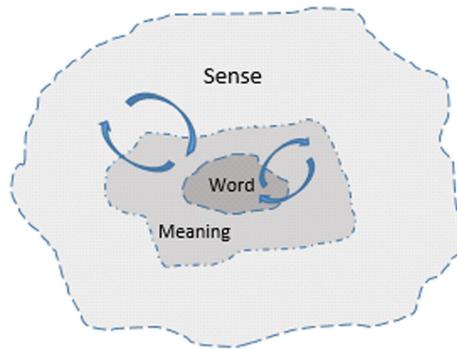


Fig. 2 Word, word meaning, and sense in a hierarchical integration

All levels are related bi-directionally and each one integrates the previous one. Then, the word is expressive and draws all meaning and sense of inner experience (Fossa 2017). This is the hierarchical integration; the higher levels include and express the lower levels of experience. In short, the word is a component of meaning, as the meaning is to the sense (Fig. 2).

The generating character that Vygotsky attributed to emotion and the relevance he gave to the personality and the affective processes in Art Psychology and in some of his works on defectology in the first moment of his work are taken up strongly in his writings and talks after 1931. In his article *on the question of the creativity of the actor*, Vygotsky and Luria (1930) writes:

In the process of societal life [...] emotions enter into new relationships with other elements of psychic life, new systems appear new sets of psychic functions; units of higher order emerge, governed by special laws, mutual dependencies, and special forms of connection and movement (Vygotsky 1984, p. 328).

In this extract, Vygotsky highlights how emotions enter new relationships with other elements of psychic life in a process where there are no mediators, in which emotions are protagonists and not an epiphenomenon of other processes. This reflection leads us to question the extension of the concept of semiotic mediation in the interpretations of his work: emotions are not mediated; they respond to a type of somato-psychic register that, under the conditions of culture, is immediately implied by various symbolic processes.

When Vygotsky refers that “the meaning is the set of all the psychological factors that appear in the conscience as a result of the word” (Vygotsky 1934, p. 188), it does not allude only to cognitive aspects. All those psychological “factors or elements” that are stirred up in consciousness are also affective-volitional and motivational aspects. The meaning removes cognitive elements (other meanings) intertwined with affective-motivational elements of consciousness (emotional). The meaning then is the union of the word with what it removes in consciousness, while, the sense, then, is the union of the significative (on a cognitive level) with the affective (motivational sphere of consciousness). When Vygotsky refers that “meaning is only a stone in the building of sense” (Vygotsky 1934, p. 244), it alludes to that aspect of experience that experiences as a complex totality, to an affective-cognitive union. The experience of sense reflects a holistic and total experience composed of cognitive but also emotional elements. It is a gestalt that closes, that is, something that is understood intellectually (the significative) but that feels affectively as pleasant and forceful (the affective-emotional).

When the sense appears something new appears in the experience, a novelty emerges and that novelty is understood in the meanings but experienced as an emergency lived in the complete organism. The sense is the indissoluble union of the meaning of the word and the affects, of the cognitive and the emotional aspects of consciousness.

Conclusion

The integration analysis carried out in this work shows how the experience progresses from the hybrid and diffuse, towards the specialized and discrete, however, at the same time from the undifferentiated experience to the hierarchical integration. From the Vygotskian perspective, meaning is the deepest unit of analysis of consciousness that manages to capture the holism of psychological processes. For some authors in psychology, this unit does not include the affective sphere of consciousness (Wertsch 1988; Cornejo 2012, among others). However, in some passages of his work, Vygotsky (1934) gives lights of a greater vital force, of a deeper dimension that lies in the unit of analysis of the interaction between the affections and the whole psychological system. Unfortunately, the early death of Vygotsky—added to the fact that at the time of his death, the final work thought and language was as a draft and the editors were the ones who structured the work, probably editing or abandoning also some notes of Vygotsky (Van der Veer and Zavershneva 2018)—did not allow the author to develop this aspect in greater depth, for him and many followers of his work, the great problem of the study of human consciousness: the relationship between affect and the entire psychological system. Van der Veer and Zavershneva (2018), recently, they conducted an analysis on the structure of chapter 7 of Vygotsky's *thought and language*. Here the authors declare to observe a series of hidden quotations, something not frequent in the previous Vygotsky's works. Apparently, some ideas expressed in this chapter were presented by Vygotsky and Luria in the conferences of 1930, and perhaps some of these ideas were not reflected in his 1934 book, because this last chapter was dictated and the editors may have modified some of Vygotsky's ideas, leaving only the unity of analysis between thought and speech—the meaning of the word—but less visible the unity of analysis between emotions and internal speech.

In this article, we have called that dimension the *sense*. Sense constitutes the meeting point and the unit of analysis of thought and emotions. No research that wants to understand the inner experience of the human being must abandon this task that of understanding the deepest, most complex, dynamic, and dialectical relationships between the affective sphere and human thought. The meaning of the word is the great advance made by Vygotsky, which challenges all researchers in language and cognition. However, future research must transcend this dimension and reach the deepest nature of meaning: the sense. As Vygotsky says: “the meaning is only a stone in the building of sense” (Vygotsky 1934, p. 244).

When Vygotsky (1934) in *Thought and Language* defined sense as “the aggregate of all psychological factors that appear in our consciousness as a result of the word” (Vygotsky 1934, p. 276), in fact, he was defining a new type of psychic unity susceptible to the language and, with it, to the culture, appearing the sense like a psychic unit organized in the present moment of relations of the person.

In reviewing Vygotsky's work on interfunctional analysis, we observe his concern to understand affect as a hierarchically integrated dimension with the rest of the psychological experience, understanding in turn the affections as a psychological dimension and giving less

emphasis to their biological correlates. In this sense, the Vygotskian proposal tries to return to the Spinozian postulates about emotions, questioning the Cartesian influence that research on emotions has had in modern psychology. This is how, towards the end of his life, Vygotsky turns to Spinoza's theory, understanding emotions as the central problem of all psychology (Jornet and Cole 2018). When Vygotsky refers: "thought was divorced and separated from all vitality of life, from its motives, interests and inclinations of individual thought" (Vygotsky 1934, p. 50), emphasizes the need to include the passions of the soul in the understanding and explanation of the entire psychological organization of the human being. In this sense, Vygotsky—returning to a Spinozian tradition—seeks to return to the path of a true psychological theory of emotions, moving away from the biological influence that the psychological investigation of emotions had in the twentieth century.

This article is a contribution to future theoretical developments and experimental protocols can incorporate the affect in the study of thought. That is, considering the interfunctional analysis in the study of psychological processes, I assume the impossibility of separating psychological functions from their intrinsically affective nature. It seems a challenge to develop complex research designs that manage to capture sense as a unit of analysis of psychological experience. Only through these attempts will it be possible to phenomenologically understand the complexity of human consciousness, assuming meaning as a constitutive aspect of sense, and sense as an expression of consciousness. This is evidenced by the last words of Vygotsky in his work thought and language:

Consciousness is reflected in a word as the sun in a drop of water. A word relates to consciousness as a living cell relates to a whole organism, as an atom relates to the universe. A word is a microcosm of human consciousness (Vygotsky 1934, p. 256).

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