

The passions as seen through the lens of Greimassian semiotics and cognitive science

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Abstract. This paper aims to incorporate Greimassian semiotics of passions in current cognitive science. Concepts such as passional codes, the canonical passional schema, and other central Greimassian notions in the domain of passions are mapped against ideas such as frames and layers of meaning within cognitive science. By integrating the two fields artificially kept apart, the authors endeavour to show how the resulting synergy could shed new light on the study of passions.

Keywords: passions; cognitive science; passional codes; canonical passional schema; Algirdas Julien Greimas

Introduction

The passions are intrinsic to human life and its evolution, both biological and cultural. To cite Hegel (1832: 23), “nothing great in the world has been accomplished without passion”. Given their importance, it comes as no surprise to find that the passions have been studied from all kinds of disciplinary angles, each one approaching them differentially according to their particular research objectives, theoretical assumptions, and methodologies. Prominent among these are semiotics and cognitive science, both of which are themselves interdisciplinary approaches that have many concepts and analytical procedures in common; but rarely have they been integrated into an overall approach to this enigmatic phenomenon. The purpose of this paper is to delve into the possibility of combining the two fields into a comprehensive framework based on the semiotic model of the passions developed by Algirdas Julien Greimas with an expanded frame analysis in cognitive science, given that the Greimassian approach actually pre-figured much of what is being discussed in the latter science. This integration

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suggests new avenues of research, which, we believe, will shed considerable light on the phenomenon of the passions. While Greimassian semiotics allows for an examination of how a specific form of semiosis might result from our passionate (physiological-emotional) reactions to certain situations, cognitive science offers a way to understand the situations in terms of how they are framed and layered at different emotional levels. The term ‘frame analysis’ was introduced by Erving Goffman in his 1974 book *Frame Analysis*, in which he provided concrete ways for understanding the relation between how a situation is framed in response to the context in which it unfolds. This idea of framing has been extended within cognitive linguistics to assess how figurative language is a trace to inner feelings and conceptualizations, starting with Michael Reddy’s (1979) early postulation, which was subsequently developed considerably by George Lakoff and other cognitive linguists (Lakoff 1986, 1987; Lakoff, Johnson 1980, 1999).

From the outset, it is essential to differentiate between the *passions*, the *emotions*, and *emotivity*. The former denotes strong or barely controllable emotions or inclinations. These can range from eager interest in, or admiration for, a political cause to strong reactions towards an individual person or idea. Denis Diderot (2004: 145) described them aptly as “penchants, inclinations, desires and aversions carried to a certain degree of intensity, combined with an indistinct sensation of pleasure or pain, occasioned or accompanied by some irregular movement of the blood and spirits”. The emotions can be passionate, of course, but the term is used more generally to indicate the mental states associated with thoughts, feelings, and behavioural responses. Emotions are often intertwined with mood, temperament and personality. It is when these become intense that they metamorphose into the passions. The term ‘emotive’ is used in various fields in reference to the emotional perspective that someone brings to a situation, which governs the discursive choices used to frame the interpretation of the situation (Jakobson 1960; Reddy 1997). Emotivity is thus shaped by the person’s emotions, attitudes, social status, and intent, which reveal cumulatively the reason or reasons why the person entered into a communicative situation in the first place.

It should be mentioned that, as Thomas Dixon argues in *From Passions to Emotions* (2003), the term ‘passions’ belongs to an older paradigm of thinking about the mind while ‘emotions’ belong to a newer, more contemporary paradigm; the difference between these terms is analogous to the difference between ‘phlogiston’ and ‘oxygen’. Although the term ‘passions’ may have fallen by the wayside in contemporary cognitive science, it is retained here for two reasons: (1) it is the term used by Greimas in the semiotic tradition, and (2) we still believe it has validity as a term referring to strong emotions within cognitive science, as Robert J. Vallerand (2015) also argues.

We should additionally note that the focus here is on the expression of the passions and emotions via language; needless to say, they manifest themselves through nonverbal forms and modalities. Our emphasis on linguistic aspects aligns with the Greimassian analysis discussed in this paper.

The Greimassian approach to the passions

One of the salient features of Greimassian semiotics, as compared to other semiotic trends is that it emerged as an extension of semantics, within textual studies. Its primary objective was to identify the internal structures of texts, and to make clear the systemic relations between these structures in terms of the ways in which these relations construct meanings. Although this approach has made a lot of progress in the last few decades, covering various other fields (including all kinds of semiotic systems, as well as practices, cultures, life forms, and so on), the traces of its textual origins persist within its theorizations³.

The first comprehensive work in the field of passions was Greimas and Fontanille's 1991 book, *Sémiotique des passions*. This was followed by several key works, including *Pouvoir comme passion* (1994) by Anne Hénault, *La quête du sens* (1997) and *Phusis et logos* (2007) by Jean-Claude Coquet, *Tension et signification* (1998) by Jacques Fontanille and Claude Zilberberg, and *Passions sans nom* (2004) by Eric Landowski. On the one hand, a semiotics of the passions should endeavour to elucidate how these are imprinted in a language; and on the other hand, it would deal with how they manifest themselves through discourses (in relation with various individual and cultural parameters). The semiotics of the passions should thus strive to go beyond the study of affectively-charged lexemes and consider their discursive configurations.

From this consideration, two general indicators were identified, irrespective of the specificities of a discourse, involving semantic and syntactic structure operating in tandem, which lead to the construction of 'codes', and the 'canonical passion schema'.

The principal codes that were found to constitute the passionate discursive system are the following:

- (1) *Perspective codes*. The passionate effects can only occur "under the control of a dominant discursive orientation" (Fontanille 1999: 69). These reveal the perspective of a subject who organizes the discursive situation around a "deictic and sensible center" (Fontanille, Zilberberg 1998: 215). In linguistic anthropology, deixis is treated as a particular subclass of the semiotic phenomenon

³ On this subject, see Biglari 2023.

of indexicality, a sign “pointing to” some aspect of its context of occurrence. Overall, this code allows subjects to put their particular universe of values into a specific frame, as it is called in cognitive science (see the subsection on frame analysis below). The same situation can thus give rise to different, even opposing, passions. For example, the situation of failure can cause despair for one subject, anger for a second, fear for a third, joy for a fourth, and so on.

- (2) *Modal codes*. The notion of modalities has played a fundamental role in the Greimassian approach to the passions. To flesh out the passionate effects of a discursive situation, the elements of the discourse: (1) “must be treated as modal values, subject to the tensions of modal intensity and extent”; and (2) they “must be associated with each other, at least two by two; the global correlation between the intensities and the extents of each of them is the source of the passionate effect” (Fontanille 2003[1998]: 227). For example, a person experiencing desperation is afflicted by a modal tumult between *not being able not to do* something about it and *not wanting to do* something; this modal conflict involves a sharpened sense of *knowing*, that is, the awareness of why a situation makes the subject feel desperate. The more helpless the person feels, the more abominable the situation is likely to be perceived; the more the person becomes aware of the situation, the higher the degree of desperation.
- (3) *Somatic codes*. The research in phenomenology has provided considerable insights into the interconnection between body, mind, and semiosis. As Maurice Merleau-Ponty (1976[1945]: 97) has remarked, the body “is the vehicle of being in the world”, thus prefiguring the so-called embodied cognition movement within cognitive science, which also embraces the idea that mind and body are interactive agents in the production of signifying structures. The movement started with Maturana and Varela’s 1973 book, *Autopoiesis and Cognition*, whose main premise was that human thought is shaped by aspects of the body beyond perception and cognition. Without going into the many points of contact between semiotics and embodied cognition theory, suffice it to say here that the two disciplines have converged on a basic principle of human life – signifying structures are extensions of the human body, allowing it to do more than it was programmed to do by biology. The body serves, as Greimas and Fontanille (1991: 324) have observed, as the source of “feeling, perceiving, reacting”, whose proper functioning is essential for ensuring the homogeneity between interoception and exteroception, and through which the passions are experienced (see Fontanille 2002: 621).
- (4) *Rhythmic and aspectual codes*. The body’s rhythms are intrinsically involved in the production of the passions (slowing down, acceleration, syncope, etc.)

as is its aspectuality (durativity, repetition, suspension, etc.). These constitute “the profile of the tensions felt by the body” (Fontanille 2003[1998]: 229).

- (5) *Perceptual (figurative) codes*. As Merleau-Ponty (1996[1989]: 104) asserted, “To perceive is to make something present to oneself with the help of the body.” Perception is framed typically via figurative concepts, which reveal “the projection of tensive variations (in intensity and in quantity-extent) on a figurative scene [that is on the actors and the corresponding spatial and temporal forms] is a textual ‘outcrop’ of an underlying passion” (Fontanille 2002: 626). Thus, the “figurative code of a passional effect could be defined as the *typical scene* of this passion, which, through the frequency of usage, can even become a leitmotif” (Fontanille 2003[1998]: 233).

Another key notion of the Greimassian framework for studying the passions is the *canonical passional schema*. Based on an inherent principle of the reduction of phenomenal multiplicity, known in cognitive science as compression (Turner 2015), the canonical schema is the outline chaining of passional states that produce a sense of what they mean, assigning “an intentionality [that] is recognizable there *a posteriori*, [with] this meaning and this intentionality always escaping, in some way, from a direct and sensible grasp” (Fontanille 1993: 33). It should be noted that the canonical schema is the result of usage rather than a universal feature of cognition. Passional canonical schematization is composed of five stages:

- (1) *Affective awakening* is the stage where the subject’s sensibility is activated via the perception of a presence, in terms of its intensity and extent – hence its link to the *rhythmic and aspectual codes*. It is a prelude to the passional modality, directing and keeping it on its path (Fontanille 1993: 36). Swann’s famous “agitation” in Marcel Proust’s *In Search of Lost Time* (1922) corresponds to the *awakening* of the passion of jealousy.
- (2) *Disposition* refers to the stage where the subject, having gone beyond the experience of excitement, obtains the modal structure necessary to produce a particular passion or type of passion. So, while *awakening* “determines the tensive style of the entire path, the disposition gives to the path its coloring or its modal style” (Fontanille 1993: 36); it therefore relates to *modal coding*, constituting the “moment when the passional *image* is formed” (Fontanille 2003[1998]: 131). For instance, the *disposition* of jealousy is suspicion, while the *disposition* of fear is the feeling of being threatened.
- (3) *The passional pivot* concerns the stage in which a real transformation takes place. It is during this phase that the subject “will know the meaning of the preceding disorder (*awakening*) and image (*disposition*)”; the person is “then endowed with an identifiable passional role” (Fontanille 2003[1998]: 131).

The *passional pivot* is related to the *figurative codes*, and with *typical scene* framing. Someone who is suspicious will only become jealous after factually discovering the betrayal of one's paramour; otherwise, the person will simply remain suspicious.

- (4) *Emotion* corresponds to the visible reactions of the body undergoing tensive transformations. It is an overt form of *awakening*, and "the observable consequence of the passional pivot" (Fontanille 2003[1998]: 131). The somatic manifestations express "the bearable or unbearable, expected or unexpected character of this consequence for the subject's body" (Fontanille 1999: 81). It is therefore during this phase, which enlists the *somatic codes*, that the passional event is socialized, whereby the subject makes it known to oneself and to others. The facial redness produced by shame, or the trembling of the body associated with fear, are examples of this.
- (5) *Moralization* refers to the stage when a judgment or assessment with respect to the previous stages is manifest. It is an "operation by which a culture relates a sensibilized modal device to a norm, conceived primarily to regulate passional communication in a given community" (Greimas, Fontanille 1991: 153–154). A subject, and even an entire culture, can positively or negatively evaluate anger, hope, ambition, or other passions.

It should be noted that these stages are not fixed: they can appear in differentiated ways, overlap, become reversed, and so on. Their mode of organization and distribution makes it possible to identify and define a passional emotive style. Indeed, it is from the actual corpus of observations that the schematization can be established, allowing the analyst to flesh out its features and implications. The crux of the Greimassian method is thus to determine the domain of validity of any canonical schema on the basis of an actual corpus.

Frame analysis

An implicit technique in the Greimassian approach to the passions is to determine how they are framed expressively, that is, how they are enunciated. It is in the context of framing analysis that Greimassian semiotics can be best located today within cognitive science. Greimas' initial hypothesis was that meaning is only possible if it is *articulated* or *enunciated*, which in contemporary cognitive science is equivalent to *framed*. Greimas began by working out a semiotics of action where individuals are defined in terms of their quest for objects, following a canonical schema, which is a formal framework made up of successive sequences, as discussed above. He then worked out what today would be designated as a 'cognitive

semiotics, which entails that in order to perform something, people must possess a modal competence that guides the performance. This opens the way to the final phase that studies how passions modify actional and cognitive performance and how belief and knowledge modify the competence and performance of these very same aspects.

In this context, we mention the work of several scholars within the ever-expanding cognitive semiotic framework, including Per Aage Brandt (2020), Ian Verstegen (2023) and others, who have aimed to extend the embodied cognition movement in cognitive science into the semiotic terrain, adapting it to general principles of semiotic theory and especially to the notion of semiosis. We also mention that work on the emotions in animals within biosemiotics is receiving keen attention; our focus here is on the linguistic forms of emotive expression.

Frames are similar to the Greimassian schemas, consisting of mental representations and interpretations of reality. They are intertwined with emotive expressivity, and thus are also related to Jakobson's (1960) model of communication in which emotive framing is central to the effects of the message on oneself and others and may thus be the trigger for passional reactions, which Jakobson designated as conative. Emotivity includes tone, pitch, volume, rhythm, and rapidity of speech – for example a high-pitched voice may indicate happiness, a low one sadness; a loud voice may indicate anger, a low one, indifference, etc. Taking his cue from the Danish linguist Otto Jespersen (1922), Jakobson emphasized that the addresser's emotions, attitudes, social status, and intent reveal cumulatively the reason or reasons why the addresser entered into a speech situation in the first place. The conative effect on the addressee is the process that might produce passional content and reactions – which is consistent with Greimas' somatic and modal codes working in tandem.

Not all speech has an emotive function, of course; but it is always present as a modality or interpretive schema. The conveyance of sentiment is unconscious, as the Greimassian approach emphasized, yet leaves traces on the body. Sometimes, the somatic code can be the impetus for framing what Goffman (1959) termed a 'positive social face' during interactional situations. So, an emotive sign used at, say, the beginning of a message provides a basis on which to present such a face and to imbue the tone of the message with positivity, thus ensuring that bonding between the interlocutors is maintained. It eases the communicative exchange by implying a sense of empathy between the interlocutors. It is in this way that Jakobson's phatic and emotive functions overlap modally and schematically.

Although there is much leeway in the grammatical and lexical choices that can be made to carry out any discursive function in specific social situations, these are not completely subject to personal whims, as Greimas consistently asserted.

Indeed, the choices made are governed largely by conventional and stylistic conventions – that is, by gambits of certain types and by processes and forms that are governed by a textual grammar. For example, the utterances below convey the same kind of anger, but in different ways:

- (1) Don't do that, stupid!
- (2) It is best that you not do that!

Clearly, (1) would be uttered only by someone who is on close or intimate terms with an interlocutor, expressing anger overtly, whereas (2) would be uttered by someone who is on formal terms with an interlocutor, expressing warning. This can be deduced, above all else, by the emotivity of the two sentences: (1) is abrasive and emotionally charged; (2) is evasive and emotionally neutral. Note also that the choice of verb tense is synchronized with the style or register – the verb in (1) is in the imperative (which is a tense commonly used to express anger overtly), but the verb *do* in (2) is in the subjunctive (which reflects formal style). Nonetheless, in each case, the choices are hardly open-ended or abstruse.

One of the key elements in the Greimassian approach to the passions is that they are framed figuratively, as discussed above. The concept of metaphorical framing has emerged in cognitive science as a key aspect of discursivity. One of the founders of the cognitive linguistic movement, George Lakoff, has always maintained the power of metaphors to affect health and social behaviours and practices, claiming that “metaphors can be made real in less obvious ways as well, in physical symptoms, social institutions, social practices, laws, and even foreign policy and forms of discourse and of history” (Lakoff 2012: 163–164). The likely reason why metaphor is so effective cognitively, behaviourally, and emotionally is its source in what are called mental *blends* (Fauconnier, Turner 2002; Turner 2015), which correspond to various somatic and figurative aspects of Greimassian modality theory.

A blend is formed when the brain identifies distinct entities in different neural maps as the same entity in another neural map. Together they constitute the blend. In the metaphor ‘fighting a war on cancer’, the two distinct entities are ‘cancer’ and ‘fighting’. The blending process is guided by the inference that ‘*disease is a war*’, constituting the final touch to the blend – a touch that keeps the two entities distinct in different neural maps, while identifying them simultaneously as a single entity in the third map. The two regions correspond to the familiar ‘vehicle’ and ‘topic’ terms in metaphor analysis which, when blended together, produce new understanding. Clearly, Greimassian and blending theory are complementary approaches to the passions. In such an integrated framework the passions would be seen as shaped neurologically by a blending process that unites

emotions with emotivity into figurative structures, which constitute the canonical passional schema.

Modern-day interest in metaphorical frames as a trace of the nature of human cognition, starts with the pivotal work of the early Gestalt psychologists who saw metaphor as evidence of how we form abstractions from sensory perceptions. Solomon Asch (1955), for instance, examined metaphors of sensation ('hot', 'cold', 'heavy', etc.) in several unrelated languages as descriptors of emotional states. He found that 'hot' stood for 'rage' in Hebrew, 'enthusiasm' in Chinese, 'sexual arousal' in Thai, and 'energy' in Hausa (a language spoken in northern Nigeria, Niger, and adjacent areas). This suggested to him that, while the specific emotion implicated varied from language to language, the metaphorical process did not. Simply put, people seemed to think of emotions in terms of physical sensations and expressed them as such. As Roger Brown (1958: 146) commented shortly after the publication of Asch's findings, there is "an undoubted kinship of meanings" in different languages that "seem to involve activity and emotional arousal"; and that this "kinship" is revealed through metaphor. Analogously, as Greimas showed with his notion of the passional schema, one could say that the details vary from language to language, but the essential modality of the schema does not.

It is relevant to note, as an aside, that metaphorical framing, although rarely named as such, has also been a central idea in psychoanalysis, found especially in the ideas of Jacques Lacan (1968, 2002) and Julia Kristeva (1980). In no way does this imply that Greimas himself adopted Freudian theory *tout court*. Rather, like any comprehensive theoretical system, the Greimassian view shows points of conceptual contact that are relevant overall to the analysis of the passions, as does the notion of metaphorical framing within cognitive science. Freud maintained that there are "unconscious mental acts" that we do not comprehend, and that these might, purportedly, be the sources of our emotional states, including the passions. The unconscious is an interesting and relevant concept because it might be the force that shapes our conscious behaviours, which are vulnerable to various emotional and irrational impulses within us (Freud 1965[1901]: 23). In a relevant work, titled *The Mechanics of Passions: Brain, Behaviour, and Society*, Alain Ehrenberg (2020) provides insights from neuroscience which dovetail with the 'frame' notion in psychoanalysis and, by analogy, with the 'passional schema' notion in Greimassian semiotics. Ehrenberg sees connections between narratives and discourses in which the brain plays a direct amalgamating role on the basis of what he calls 'collective idioms', by which we explain ourselves to one another. This term is clearly coincident with the Greimassian notion of discourse code, as it is with that of metaphorical frames.

As another aside, it is useful to indicate that in the age of the Internet new conditions are emerging that require new frames of language and cognition, given the advent of what can be called ‘digital passions’. One of these is emotional dependency on the Internet and especially on social media. Another symptom is an abiding (passionate) preoccupation with all aspects of the Internet, including compulsive anticipation of digital contact from online interlocutors. Research scattered across medical and psychology journals and sources (for example, Krueger, Osler 2019; Carr 2020) is showing that this kind of addictive behaviour is having negative effects on everything from memory to sleeping habits. Among the symptoms, the following stand out:

- (1) *self-esteem*, which suffers when people are attempting constantly to keep up to date with what others think of them on social media sites;
- (2) *loss of well-being*, caused by a paranoid form of FOMO (Fear of Missing Out), which is an addiction to social media;
- (3) *memory loss*, since online activities seem to distort the ways in which people remember things in tidbits rather than as holistic thoughts, leading to a fragmentation of memory;
- (4) *sleep deprivation*, caused by the constant over-use of social media, and the ensuing anxiety this often causes, which carries over into sleeping time;
- (5) *attention spans*, which seem to have been impacted negatively as well, since social media communication has provided the conditions for checking information constantly, leading to a diminution of attention;
- (6) *mental health* in general, since studies show that those who leave social media express greater satisfaction and more balanced feelings, while many of those who stay on might show symptoms of addiction and obsession.

Layering and the generative trajectory

In a relevant work, Paolo Bertetti (2017) noted several points of coincident contact between metaphorical theories and Greimas’ generative trajectory. In essence, the generic idea of the trajectory is the projection of deep figurative thoughts into increasingly more surface-level discursive expressions. In effect, metaphor is itself a metalanguage of thought. As Bertetti (2017: 94) puts it:

Each level of the trajectory “would mean” the immanents levels, as each underlying level would be nothing but a metalinguistic reconstruction taking into account the conditions of manifestation of the higher levels; so it is not part in itself of the content of the text analysed, except in the sense that it is a metalinguistic reconstruction.

It is in this specific field of Greimassian semiotics that one can discern commonalities with so-called layering theory (see, for example, Danesi 2022: 46–89). This implies that the deepest source domains of metaphors constitute the first layer of understanding, and that derivatives from this layer constitute second-order and third-order metaphors, which, to use Greimassian terminology, are projected onto a trajectory of thought and discursivity. So, a first-order layer is one that is constructed with concrete source domains – a layer whose neurological source is blending. So, metaphors such as ‘the dawn of life’, ‘old age is the sunset of life’, and so on, involve mapping the source domain of ‘day’ (the concrete domain) onto the phases of ‘life’ (the abstract domain), constituting a first-order metaphorical layer, based on the sense that the two events are perceived as resembling each other in an imaginary way. From this root concept, other metaphorical layers can be derived – ‘going through life’, ‘skipping marriage is now common’, and so on.

Layering processes are explained by Lakoff (2012) as exemplifying the principle of *invariance*, namely the fact that mappings (generative projections) preserve the cognitive topology of the source domain in a way that is consistent with the inherent structure of the target domain – that is, once a *journey* is enlisted as a source domain, its features are preserved, no matter what derived frames are constructed:

What the Invariance Principle does is guarantee that, for container schemas, interiors will be mapped onto interiors, exteriors onto exteriors, and boundaries onto boundaries; for path-schemas, sources will be mapped onto sources, goals onto goals, trajectories onto trajectories; and so on. [...] If one looks at the existing correspondences, one will see that the Invariance Principle holds: source domain interiors correspond to target domain interiors; source domain exteriors correspond to target domain exteriors; etc. As a consequence it will turn out that the image-schematic structure of the target domain cannot be violated: one cannot find cases where a source domain interior is mapped onto a target domain exterior, or where a source domain exterior is mapped onto a target domain path. This simply does not happen. (Lakoff 2012: 164)

Psychologically, first-order metaphors are based on source domains extracted from the experiencing of something that is familiar and easily picturable in both mental and representational terms. Once the first layer in a language has been formed, it becomes a new productive source domain for creating increasingly higher and more abstract layers of concepts. Consider, for example, the concept ‘thinking is seeing’, which is a first-order concept based on mapping vision against mental acts: “I do not *see* your point”; “I cannot *visualize* what you are saying”; and so on. This root concept is, then, the source for more complex metaphors, that involve the blending of other source domains with the root one:

Where did you *think up* that idea?
 I *thought over* carefully your ideas.
 You should *think out* the whole problem before attempting to solve it.

These evoke image schemas of location and movement, blended with the root image schema of ‘vision’. The phrase ‘think up’ elicits a mental image of upward movement, thus portraying the abstract referent as an object being extracted physically from a kind of mental terrain; ‘think over’ evokes the image of scanning with the mind’s eye; and ‘think out’ elicits an image of extracting something so that it can be held up to the scrutiny of the mind’s eye. These frames allow users to locate and identify abstract ideas in relation to spatiotemporal contexts, although such contexts are purely imaginary. It is as if these imaginary movements allow us to locate thoughts in the mind. Overall, they manifest the formation of a second-order metaphor that can be formulated as ‘thinking is visual scanning’.

The third-order layer of metaphorical reasoning is a level made up of further derived metaphorical frames that assume culture-specific symbolic forms. For example, ‘illumination’ or ‘enlightenment’ is a third-order metaphorical frame, extending the ‘thinking is seeing’ primary layer into the domain of culture, as can be seen in metaphors of knowledge involving light, and even eras of history designated as ‘Dark Ages’ or ‘the Enlightenment’. The higher the density of layering, the more abstract and, thus, more culture-specific, the concept (Fig. 1).

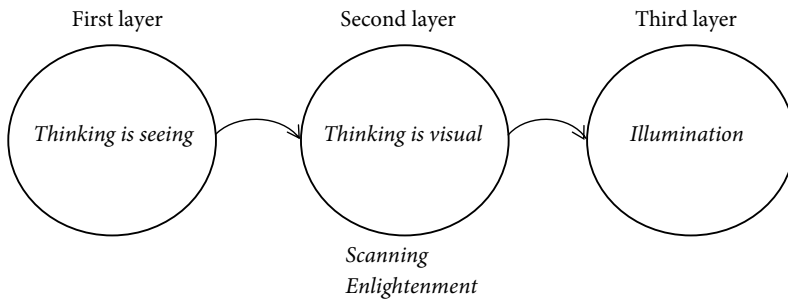


Figure 1. Layering in conceptualization.

The most rudimentary form of the passions is given expression in the first-order layer, as can be seen in an expression such as ‘He is *red* with anger’ or ‘She is *boiling* with anger’, which connect somatic-physiological stimuli to the sense of anger, thus corresponding to the Greimassian somatic modality. The derived

second-layer metaphor would be, for example, discernible in an expression such as ‘He was doing a *slow burn*’, which is a mapping of a derived sense of anger as a burning sensation, which aligns the metaphor more to a specific language than to a common passional schema. Finally, a metaphor such as ‘He became *insane with rage*’ is a cultural evaluation of anger, equating it with a mental state, and thus a third-order metaphor.

Layering theory allows us to penetrate the reason why conflicts and other passionate interactions have their source deeply embedded in a mind–body dynamicity. As such, these become social-communicative frames (Greimassian schemas) that guide interactional behaviours, among which are the following:

- (1) the linkage of two or more congruent but structurally unconnected frames regarding a particular passion, such as anger and suspicion. So, for example, the suspicious person could use an anger source domain to express it: “I am *boiling* with doubt”;
- (2) the clarification of an interpretive frame that bears on a particular passion, such as “I have been suspicious for a *long time*”, with ‘time is a length’ as a clarification schema; this interpretive frame also involves the unconscious deployment of values or beliefs;
- (3) the extension of the boundaries of the proposed frame to encompass biases or specific views of others: “They are always too passionate about such simple issues”;
- (4) the transposition of the meanings in one frame to another frame, which Goffman (1974: 43–44) called ‘keying’, and which here has been called ‘layering’ as when someone connects suspicion with types of intelligence, as in “I suspect my partner, who is always doing this because of ingrained cleverness.”

Towards an integrated perspective

During the last few decades, semiotic theories have made remarkable advances into various areas, from media study to artificial intelligence, showing how semiotics can be applied powerfully to analyse meanings concretely. Nonetheless, semiotics remains somewhat insular with respect to areas of specific concern to cognitive science. In our view a true point of contact between the two can be discerned in the Greimassian approach to the passions which has various overlapping features with the cognitive scientific paradigm, some of which have been discussed schematically in this paper. The analyses that relate to coherent passional sets, or to discourses in all their complexity and richness, show passional schemas that overlap with the notion of frames and layers of metaphorical cognition; so, testing

the heuristic value and the theoretical pertinence of Greimassian notions in a cognitive scientific framework can potentially open up a deep collaboration between semiotics and the cognitive sciences.

For the collaboration to become concretely practicable it is obvious that the chosen corpora must be highly varied, associated with different types of discourses and different semiotic systems, including different cultures, so that an understanding of the passions can be truly established. The use of large and diverse corpora will afford the means of distinguishing, hypothetically, what is universal and what is specific to a culture, an individual, an era, and so on. Since various cognitive sciences have already conducted empirical research on large corpora of data, producing relevant findings, the time is approaching when a merger with semiotics will broaden our understanding of the relation between mind, body, and semiosis, focusing on a specific area of emotional and emotive referentiality. For example, the work in cognitive neuroscience shows that there may be a direct link between the gradual increase/decrease in the intensity of neuronal and hormonal production mirroring the progression of the stages of the canonical passional schema.

Significantly, as frame analysis in cognitive science has shown, many cognitive scientists hold a functionalist view of the mind, whereby mental states and processes should be explained by their function – a view that certainly overlaps with Greimassian semiotics. Lakoff and Johnson (1999: 99) have defined the term ‘cognition’ appropriately as “any kind of mental operation or structure that can be studied in precise terms”, a broad conceptualization that should not be confused with its uses in analytic philosophy, where ‘cognitive’ has to do only with formal rules of logical semantics. As Greimas always maintained, semiotics should study the structure, formation, uses, and typologies of sign systems and meanings, including texts and codes, staying away from any subjective views of the analyst, which almost always creep into an analytical situation. However, ultimately, studying signs and meanings is tantamount to studying the mind that makes them, uses them, and is guided by them. So, in a fundamental sense, semiotics is a study of the mind and the brain. Greimas (2017[1971]: 46) himself affirmed: “All these efforts have only one goal, which is to understand how human thought actually functions, and how the human brain works.”

We hardly realize the presence of unconscious semiotic mechanisms that manifest themselves in the words and phrases used during conversations, in written texts, in kinesic and proxemic behaviours, and so on. Greimas was able to show how these are based on deeply-embedded schemas, such as the passional schemas. It should be noted that attempts have already emerged to connect the two fields of semiotics and cognitive science, as for instance, in the establishment of a so-called ‘cognitive semiotics’, which appears to be coincident with cognitive science itself,

or at the very least of coming up with a common set of analytical tools between the two fields (Daddesio 1994; Brandt 2020). And, as far as we know, Paul Perron and Marcel Danesi had made an attempt to link Greimassian semiotics with cognitive studies a year earlier than Daddesio (see Perron, Danesi 1993). The particular direction was taken by cognitive semiotics, but this new orientation has hardly gained traction within either semiotics or cognitive science, which leads us back to a reconsideration of the aims of semiotics and how these can be focused on a particular area, as Greimas showed. Moreover, in our view the Greimassian approach to the passions can be transferred practically and meaningfully to the study of the emotive aspects of mentation and expression, as is inherent in both the idea of enunciation and framing, which share many points of contact, as discussed in this paper. The idea of an integrated semiotic-cognitive science approach was, actually, the goal of the late semiotician Thomas Sebeok, who, in his more facetious moments, saw cognitive science as nothing more than “semiotics with money”.

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Les passions vues à travers le prisme de la sémiotique greimassienne et des sciences cognitives

Cet article vise à incorporer la sémiotique greimassienne des passions dans les sciences cognitives actuelles. Des concepts tels que les codes passionnels, le schéma passionnel canonique et d'autres notions greimassiennes centrales dans le domaine des passions sont mis en relation avec des idées telles que les cadres et les couches de sens au sein des sciences cognitives. En intégrant ces deux domaines artificiellement séparés, les auteurs cherchent à montrer comment la synergie qui en résulte pourrait apporter un nouvel éclairage à l'étude des passions.

Kired Greimasi semiootika ja kognitiivteaduse prisma läbi nähtuna

Artiklis püütakse hõlmata greimaslikku kiresemiootikat tänapäevasesse kognitiivteadusse. Selliseid mõisteid nagu kirgede koodid, kanooniline kireskeem ja teised kesksed greimaslikud mõisted kirgede valdkonnas kaardistatakse selliste kognitiivteaduse ideede taustal nagu raamid ning tähenduskihid. Lõimides neid kaht kunstlikult lahus hoitavat valdkonda, üritavad autorid näidata, kuidas tulemusena tekkiv sünergia võiks valada uut valgust kirgede uurimisele.