

Claudio Julio Rodríguez Higuera*

How to detonate a semiotic bomb: the dynamics of Lotmanian explosion in the semiosphere

<https://doi.org/10.1515/lass-2024-0019>

Received April 25, 2024; accepted October 21, 2024

Abstract: Lotmanian cultural dynamics involve change through textual interaction. Texts, offering vehicles for information, play a central role in this, with cultural change happening in two modes: gradual and explosive instances of texts that alter the semiosphere. This paper focuses on the process of explosion—an unpredictable mode of change in Lotmanian theory—through a metaphorical methodology, by introducing the concept of semiotic bomb. A semiotic bomb works here as a theoretical object that tries to harness the effect of explosion within the semiosphere. The concept of semiotic bomb serves as both a way to examine what is necessary for explosion to happen and as a theoretical exercise in attempting to predict the unpredictable in culture. We contend that cultural change must be understood in terms of sign configurations and information transmission through Charles Morris's behavioral semiotics, and that this basis works as a complement of Juri Lotman's cultural dynamics by grounding textual information on behavioral change and resignification. Taking a note from information and semiotic warfare, we look at what it takes for culture to foster change through the prism of Lotman's theory, and how we could conceptualize *intentional* change through information manipulation and presentation. The paper offers a novel look into the logic of explosion within the semiotic theory of Juri Lotman and proposes conceptual avenues for exploring, analyzing and tentatively implementing the concept of *explosion* by the proposed idea of a semiotic bomb.

Keywords: Juri Lotman; cultural semiotics; explosion; cultural change

1 Introduction

The growth of relevance of certain meanings and forms of expression is, to a degree, the currency of cultural information, broadly construed as the set of codes and texts within a communal organization (Lotman et al. 1978: 214). In trying to describe just

*Corresponding author: Claudio Julio Rodríguez Higuera, Department of General Linguistics, Palacky University, Olomouc, Czech Republic, E-mail: claudiojrodriguez@gmail.com. <https://orcid.org/0000-0003-3778-5369>

how the variance of relevance comes to be, however, we stumble upon a sizable issue, namely, the unpredictability of what makes something become a force of relevance within culture (Lotman 2013: 62–63). It is in this context that we want to refer to *information warfare*, at least in the sense of control and manipulation of an information space, as the attempt to force a change of mind with regards to an issue supporting a specific position. In information warfare – instances of which we see in propaganda, fake news and the like –, cultural tools are deployed to legitimize a message or expression, i.e., to elicit wide-scale cultural change, in detriment of other possibilities. We will expand on this by appealing to the idea of *semiotic warfare*. Looking particularly at this phenomenon, our article will propose a different conceptual route for talking about information usage in situations of conflict, based on the semiotic formalization of social dynamics and signification as an integral part of such processes.

We propose a theoretical model based on the principles of explosion as a property of the semiosphere, whereby unpredictable and rapid change and movement of the information existing in the spaces of the semiosphere becomes instantiated at a certain moment (Lotman 2010: 14). That is, explosion is something that happens *within* the semiosphere, involving the transmission of texts and the change of information that is transmitted through them across the space of the semiosphere. We use a metaphorical methodology for both the analysis and implementation of rapid cultural change using Juri Lotman's cultural semiotics as our guiding theory. This model will be introduced as a semiotic bomb, a theoretical device that uses text generation to induce explosion in the semiosphere.

In the first section of the paper we will look at the terminology used to describe *information warfare*, setting up the conceptual backdrop for our proposal. We will then look at semiotic descriptions of cultural change, highlighting Charles Morris's notion of propaganda and control as a way to describe the specific phenomenon of information warfare through propaganda within a semiotic framework. We will then explore the mechanisms of cultural change in Lotmanian theory, including the notions of explosion and unpredictability. In unifying these, we will propose a methodological-theoretical frame for "building" a "semiotic bomb," from a theory-based standpoint. The idea of a semiotic bomb lies in operationalizing the concept of explosion in terms of possible causes, within the framework of an incompatibility of meanings in the semiosphere. Such a concept, we believe, offers an intuitive and informative alternative to treatments of (dis)information, its execution and consequences from within cultural semiotics. The upshot will be a theoretical *apparatus* that can offer an analytical stance for large-scale communication phenomena in cultural semiotics, appealing to an analysis of semiosphere-specific phenomena, particularly in situations of conflict of meanings.

2 Terminological conflict

The intentional usage of mass-communication for eliciting some kind of manipulation is, given the abundance of information and ubiquity of means to acquire it, a central issue in the study of communication and culture. The formalization of such actions can indeed give us tools to peek behind the scenes, so to speak, of the conflict to make us change our minds. Propaganda studies, for one, specializes in the history and understanding of what counts as propaganda within an interdisciplinary focus (Auerbach and Castronovo 2013), and *fake news* as a concept has gained great traction across different areas of research, such as journalism (Richardson 2017), communication studies (Anderson 2021), sociology (Tandoc Jr. 2019), semiotics (Borges and Gambarato 2019) and so on, to mention only a handful of examples of research directly dealing with it.

The ideas lying behind such conceptualizations, namely, modes of mass influence and *resignification*, are pervasive and often exploitative, their moral standing dubious at best. Semiotic terminology is well-suited for analyzing both specific and general phenomena where resignification plays a key role. In this context, we will focus on the function of resignification within the semiosphere, using Lotmanian cultural explosion as our main tool for understanding how cultural communication shapes phenomena like propaganda and fake news. Instead, however, of focusing on the semiotic mechanisms involved in culturally resignifying political objects of contention, we will attempt to axiomatize general cultural resignification as a forced process. In what follows we will explore the terminological basis for such axiomatization.

2.1 Morris and internal cultural change

The basis for our view here will be centered on Lotmanian semiotics, particularly on the concepts of *semiosphere*, *explosion* and *unpredictability*; however, these are not the sole concepts needed for a working theory of resignification via controlled explosion, and so part of our view will depend on a reconceptualization of Peirce through (the sometimes maligned) Morris.¹ We will particularly focus on the following view:

¹ Dewey (1946) criticizes Morris's interpretation of Peirce and, in a public back-and-forth documented by Moreno (1983), the accusation of behaviorism flung to Morris has stuck in a negative light for semioticians (Deledalle 2000: 115; Short 2004: xiii, for instance).

The recognition that culture is largely a sign configuration suggests at once that the transmission of culture is mainly effected by the transmission of signs from the existing members of the society to the young or to those who enter the society from other societies. (Morris 1946: 207)

Morris sees in propaganda an example of control within society, and in fact, he takes social control to be of the upmost relevance to societies in general, but control is limited by biological needs and is never complete (208–209). Semiotic principles, at least at the level of behavior, do not grant full control of the individual in any case, Morris is quick to point out. Morris paints the following picture: “Society exists only in the interactions of persons, and the differences in and the variability of persons is an inevitable source of change in society” (209). What Morris is trying to describe here is an internal mechanism of culture that produces its own change, if we reconstruct the argument in those concepts. So far, Morris gives us a more psychological aspect of what signification can do within culture, but we do not have a proper theory of change in culture except for some internal feedback. This is a crucial point and why we need Lotman in our working theory.

2.2 Lotman and cultural resignification processes

While Morris defers to Mead for understanding social control (207),² what we want to look at is how processes of resignification can be shaped *precisely* to engineer behavioral outcomes. Morris’s interest in semiosis as having a shaping effect on culture goes in line with our concerns here, but his conception of semiotics seems insufficient to describe what Lotman correctly identifies as the unpredictable paths that culture takes (Lotman 2010: 14). To make sense of this, however, we need to revisit the main theoretical elements proposed by Lotman to make sense of resignification processes in general (within culture).

As one of our core assumptions is the relevance of semiosis for cultural processes, we need to make sure that its operation is functional within the theory. Lotman’s concept of the semiosphere gives us a model of cultural interaction where signification processes are at the forefront of its activity. The semiosphere is briefly defined as.

² Morris refers in particular to social control seen as “bringing the act of the individual into relation with the social object” (Mead 1925: 273). In a nutshell, a social act happens when a behavioral act can be defined in relation to the environment against which the actor is set. However, social acts are restricted, for Mead, to those where their reason for being is related to a particular object. This object—a social object—is fully comprised of differentiated actions belonging to different individuals, but without which its fulfillment would not be possible (263–264).

the semiotic space necessary for the existence and functioning of languages, not the sum total of different languages; in a sense the semiosphere has a prior existence and is in constant interaction with languages (Lotman 2001: 123).

Here we do need to assume that language is capable of configuring signification in social spaces. At the same time, we need to keep in mind that the concept of language in Lotman's work is not directly tied to verbal language, but rather to the more general concept of *sign system*, a set of signifying elements under certain combinatorial rules (Tamm 2019: 7). The implication here lies in that the plurality of languages is a necessity for cultural communication altogether, and that there is more to signification than lexical meaning.

If the individual and the social are both circumscribed to a semiotic background, the interface generating internal change—as theorized by Morris—can be thought of as the interaction between individuals utilizing signs, but this mechanism is insufficient to account for cultural development in general. The plurality of sign systems can be better specified as the interaction between differentiated sign systems with a certain degree of compatibility coming from internal and external sources. Now, a semiosphere is not fully isolated in Lotman's view, as it possesses a permeable boundary through which external elements become present within a certain culture (assuming, of course, that culture and semiosphere conceptually overlap to some degree).

The mechanism through which the external becomes represented within a given semiosphere requires positing that what lies outside becomes translated into something discernible from within. Here, the border of the semiosphere is theorized to do the work of containing cultural activity and allowing the flow of information inside the semiosphere:

(1) the border as an instrument of separation, internalization and closure; (2) the border as an instrument of connection; (3) the border as an instrument of internal differentiation and external indetermination (Monticelli 2019: 393).

As a toposymbolic concept (Nöth 2015), the semiosphere cannot be formulated as a precise, individuated system, but it can be applied to specific cultures³ in order to congeal and systematize a more or less fuzzy but recognizable boundary of social interaction, memory and cultural production. What lies beyond the border of a particular culture *qua* semiosphere can still exert some influence, as exchange is functionally integrated in the concept of semiosphere itself. What is not stated though is the rate at which such an exchange occurs. Lotman is keenly aware of the fact that significant semiotic events in a semiosphere are not a given, and that this

3 As for instance Hartley (2004) and the so-called "Australian semiosphere."

unpredictability is a property of the semiosphere, which becomes related to the concept of *explosion* in Lotman's work. We will explore both of these in what follows.

2.3 Unpredictability and explosion in Lotman's semiotics

Lotman theorizes that cultural change can be seen in two different modalities, a mode characterized by continuous, gradual and minor set of changes, and an explosive, unpredictable one (Lotman 2010: 7). We are particularly interested in the second case and in spelling out the connection between unpredictability and explosion in culture.⁴ First we need to characterize these concepts more specifically. As semiotic systems are dynamic and in constant interplay—we ought to remember that it is axiomatic for Lotman that semiotic systems do not exist individually (Kull 2005; Nöth 2006)—, explosion is one of the main forms in which change within culture becomes actualized. Explosion itself is “the moment of unpredictability” (Lotman 2010: 123), but unpredictability, Lotman continues, “should not [...] be understood as constituting a series of unlimited or undefined possibilities for movement from one state to another,” that is, while changes are factually unpredictable, there are constraints to the types of change that may be actualized in culture itself, these changes being all equally probable.

Cultural change is, more precisely, limited by possibilities that can be inferred from general cultural behavior, but the moment of explosion is a type of particular, rapid change that cannot be inferred as *more likely to happen* than other possible changes. Lotman considers this a mechanism of change in culture, just as necessary as gradual and slow change. What counts as fast and slow may not have a precise definition, but when it comes to cultural change, we may consider rapidity as a determinate amount of time where change is noticeable, that is, events within the culture itself can be observed to change. We can take technological development as an example in trends, with Lotman stating that “on the whole, it is the nature of technology that practical necessities act as powerful stimuli in progress. Therefore realisation of technological novelty is predictable, whereas the occurrence of novelty in science and art is unpredictable” (Lotman 2010: 7). While we may dispute the accuracy of this statement, the point to take home here is that changes can happen as a response to a specific necessity within a specific cultural set. Explosion, finally, allows culture to overcome periods of instability (or non-equilibrium), where cultural actors determine the path that will be taken (Gherlone 2016: 99).

⁴ It seems to be the case that for Lotman, gradual change can also be characterized as predictable (Gherlone 2022).

Explosion is itself unpredictable by nature, in Lotman's theory, but its impact on culture is always highly relevant—sort of like a cultural earthquake. Explosion is a property of a semiosphere, without any specific rate or predetermined result—the only givens are that it will happen, that we don't know when it will happen, and that it will produce a noticeable cultural change. In what follows we will further discuss the possibility of application of the theory as a methodology on culture and cultural change.

3 Metatheory, methodology

Lotman's main source of examples for illustrating cultural change comes from literature, with certain texts as case studies of cultural change and as a reflection of everyday life (Torop 2010: xxxiv). Methodologically speaking, we may wonder whether this is valid as a proxy for culture as a whole or whether it offers a direct insight into proper culture change, but what we can conclude from this usage is that texts reflect both the state of the culture and the possibility of change within it. Lotman's notion of *text* then works as a specific unit of analysis⁵ (Parmentier 2016: 18) as “a complex system storing diverse codes capable of transforming messages received and generating new ones” (Lotman 1988, 57). Since the semiosphere consists of individual texts, we may model the general dynamics of the system as a whole or study specific types of texts both representing the system's dynamics or as inducers of change.

From here we can assume that *texts of any sort can exert systemic change at both the gradual and explosive levels*, and this will be a key point later on. In other words, a text can have a causal role in cultural change. The position we want to present is the following: If culture can be construed as a semiosphere and the semiosphere is a space of interaction of texts, the “engine” for culture change is the emergence of new texts and the reconditioning and re-framing of older, already-existent texts.

A great deal of *Culture and Explosion* has Lotman working out how literary texts *represent* system dynamics,⁶ which is why we can take texts to work as a proxies for

5 Or, more specifically, text modeled semiotically. Lotman makes a distinction between the objects of study (or facts, in his parlance) of science and culture, with facts studied in culture as “the result of a preparatory analysis.” Moreover, he sees that a fact in the sphere of culture is created by the scholar in the research process and is never something absolute. A fact is relative in relation to the universum of culture. It floats up from the semiotic space and is dissolved in it as the cultural codes alter. Yet because it is a text this semiotic space does not wholly determine it: with its non-systematic elements it revolutionizes the system, prompting the system to become restructured (Lotman 2001: 220).

6 As, for instance, in Pushkin's *poetic tension* defying notions of *inspiration* and *enthusiasm* (Lotman 2010: 20).

the analysis of the system as a whole. We do not need to assume that all texts have the same properties as literary texts,⁷ but by the very definition of text as we have seen it earlier, they should share at least some properties that lend themselves to a more global analysis, as if they were geological imprints left in the landscape of culture.

An important question that follows from our proposal is, how can semiotic texts have an influence on the culture as a whole? If our models are right, culture is semiotic and spatial,⁸ and it is in the interplay of semiotic elements that change occurs—enacted by the individuals who participate in the creation of texts. While art seems to be the paradigmatic case of change in Lotman's view, not everything that is semiotic is artistic. And given the heterogeneity of semiotic interplay, the artistic and the non-artistic most likely participate together in the processes of change in culture.

Something important to keep in mind in all this is that the concept of the text is more or less an ad-hoc unit of analysis. Though identifiable as such, it still depends on an epistemic bias towards its definition. However, the logic of a text should be more or less self-contained to the degree that we can argue that a text is, indeed, an *individual* text, even if it can be separated into further texts, like the complete works of a painter, a collection of poems or a fashion trend comprised of all its individual instantiations. While the epistemic criterion for justification is not concrete, its ad-hoc nature seems graspable as a cultural element with a high level of relatedness to its parts, whatever those may be. Keeping that in mind, we can develop a specific concept that can be useful for analysis and methodological speculation, that of a semiotic bomb.

4 The concept of semiotic bomb

An important outcome of trying to characterize the specific working of texts in the process of explosion is that we can imagine what a text *would* need to look like in order to cause a specific kind of cultural change. In this section, we will use a sort of metaphorical methodology in the formulation of a 'semiotic bomb.' The concept is not new, as there are documented usages of 'semiotic bomb' referring to how symbolic elements can cause social conflict (Mälksoo 2016: 78), as a fast communicative and meaningful object (Rander 2012: 20) or as a message of aggressive content geared for or against a specific cause (Bartholomew 2010: 975). These usages are good expressions of the conceptual idea of a 'semiotic bomb,' yet none of them are coined as theoretical apparatuses. There is also the idea of an 'information bomb,'

⁷ Lotman indeed states that art comprises a special case of secondary modeling (Lotman 2011: 252).

⁸ Semenenko (2016) extends Lotman's concept of the *semiosphere* towards a model of human cognition.

apocryphally attributed to Einstein and taken seriously by Virilio (2006) as “capable of using the interactivity of information to wreck the peace between nations” (63), but its conceptualization is similar to Eco’s idea of information control and semiotic guerrilla warfare, as we will later see.

Following Lotman’s logic of explosion, we will propose a concept of semiotic bomb as an *artificial meaningful event crafted with the intention of shifting cultural change towards a specific direction*. In short, a semiotic bomb is a way to create *explosion* in the Lotmanian sense. We will give some further depth to the concept in this section, but it is important to first take into account the weaponization of information as a precedent for such a construct. In other words, we will explain the existing rationale for using information to cause relevant cultural change with the backdrop of the semiotics of culture. The weaponization of information, we contend, can be framed as an attempt at generating the effect of cultural change, and it can be framed through both gradual and explosive modalities.

4.1 Semiotic warfare

That information serves a role beyond that of conveying x to y is not contentious. The weaponization of information is, as mentioned earlier, a relevant topic, with information warfare taking a central stage in concerns about, for instance, democracy and the legitimacy of institutions (Bennett and Livingston 2023), and *fake news* being one of the main current concerns for the public (Aïmeur et al. 2023). Here we are particularly interested in meaning-making as a tool for cultural shift, i.e. resignification, within a cultural system. Reflecting on the usage of information for individual control, Eco (1986) reflects on *semiotic guerrilla warfare* as a means of attacking centralized information sources in order to regain control of interpretation, and Paolucci (2023) has proposed that such an account may be better suited to explain the phenomena of information warfare in the public sphere. This leads us to ask what exactly counts as *semiotic warfare*, no matter what the scale of the conflict is.

Semiotic warfare, while having the appearance of a technical concept, is not one that has been thoroughly developed. Kurtz (2007) defines it as “the process by which subcultures and activist groups attempt to question the meaning of cultural signs and symbols” (1,276), placing emphasis in a similar situation as that of Eco (and, to an extent, Morris)—the fight against psychological control of individuals by means of symbolic interaction. Köppel-Yang (2003: 35) makes the claim that art is done through aesthetic signs, which are conditioned by social norms, cultural values, discursive practices, etc. These latter are normative regarding both individuals and groups, but signs reflect changes to culture. While the language is different, we can find some similarities to Lotmanian concepts here in the idea that change is reflected on the signs that are used.

It seems to be the case that for something that we could call *semiotic warfare* to happen, we would need a system of apparently incompatible oppositions, guided by specific agents that strive towards the destruction of the meaningful ends of said opposition. Opposition itself, following Lotman, is not an actual issue—semiotic systems emerge from the existence of oppositions and complementarity—, but it is *social antagonism* what drives the idea of semiotic warfare, most likely. The point is, information is weaponized through the manipulation of signs and texts. From this we understand that the manipulation of texts itself can effect change *to some degree* within a particular system, as semiotic warfare seems to show.⁹ Semiotic warfare allows us to exemplify the decision for the metaphorical methodology of ‘building’ a semiotic bomb.

4.2 How to build a semiotic bomb

Looking back at the earlier definition we gave of a semiotic bomb, we can use it to *craft* one within the Lotmanian framework. This would serve as a model of explosion within a contained scope. As mentioned earlier, the idea of a semiotic bomb is that of ‘an artificial meaningful event crafted with the intention of shifting cultural change towards a specific direction.’ Explosion should be a natural feature of a semiosphere (or a semiotic system), which is why *causing* an explosion should, in principle, be artificial if our intention is to make it happen at all. As explosions are meaningful events where specific texts expand, resignify and modify other texts, a semiotic bomb is bound to explode and be thus one such event. The intention of shifting cultural change towards a specific direction is tricky because *predicting* cultural change itself is not something we are very good at, even when it comes to the necessities evidenced in gradual change, according to Lotman. We may be able to state, for instance, that we need faster ways to move between cities given the rising costs of real estate in central areas of economic hubs, but we can only prophesy what the changes to our current transportation systems will look like, without being able to actually *know* where or what change will occur specifically.¹⁰

Conceptually though, what we need in order to *build* a semiotic bomb is a *conceptual core*, *detonation triggers* and *casing*. This, of course, is metaphorical talking, but the model works along Lotmanian semiotics as a theoretical construct in each of its parts:

- **Conceptual core:** The central item of a semiotic bomb should be its conceptual core, the underlying meaning to it. A conceptual core can be clearly or loosely

⁹ A vaguely semiotic proposition for information warfare has been developed in Baskarada (2011).

¹⁰ Old futurology is a compelling example of this phenomenon.

defined, but it should be context-dependent to the degree that it can be situated at least partially within the frame of reference of a particular semiosphere. In other words, the conceptual core of a semiotic bomb is relative to where it is bound to explode. A conceptual core can be political, aesthetic or even economic. What should matter in its conception is that it does not completely overlap with current central meanings in a semiosphere.

- **Detonation trigger:** The context of a semiotic bomb requires strategic planning. As the trigger causes the expansion of the conceptual core within its casing and its subsequent explosion, it should be defined as the elements that foster the appearance of the core. A situation of opposition without overlap in the culture should be used or created for the core to be active.
- **Casing:** This should be the instantiations of the conceptual core. The parts of the casing should be multifarious in appearance and execution. After all, a conceptual core should not be an appearance, but an abstraction that can be *represented* somehow. As the core expands and explodes, the casing becomes fragmented, reaching throughout both the center and periphery of the semiosphere.

These, we believe, are the essential elements that can lead to *explosion* in the Lotmanian sense. For an idea x —the core—we may want to find representations and a means to make available in its context. Still, there is no guarantee of its efficiency. If we are correct, however, in the assessment of what is necessary to generate an explosion, we need to specify how the trigger will act.

4.3 How to detonate a semiotic bomb

Context-dependence means bomb construction and its detonation mechanism are both strongly linked. The issue lies in making an argument for an *effective* bomb. Explosion within the system being unpredictable means we do not have a solid grasp on what exactly causes it except in hindsight. There are at least two basic possibilities we can envisage for such a theoretical object as a semiotic bomb, one being a statistical argument and the other, an aesthetic argument.

The statistical argument would simply states that we need a sufficient concentration of representing items (*casing*) with various presentations to reach a threshold for the core to explode. Functionally, we could formalize this idea by saying that for a semiosphere sized Cx ; Px , where C stands for the center and P stands for the periphery, the casing of a semiotic bomb should comprise enough elements to cover both partially, $C(x-y)$; $P(x-y)$, where y stands for the size of the casing. As measuring the actual size of either a Center C or a Periphery P is not something we can truly

calculate, both because of the extension of the semiosphere and the nature of its composition, we must assume that in order to cause change we need an ample number of elements conforming the casing of the semiotic bomb. We could, conservatively, estimate that if we can somehow flood the semiosphere with what amounts to half of all the existing texts, $(x/2)$ for both C and P , we would have enough power to produce an ample message and effect resignification.

This, in all practical matters, is unrealistic, because of the large amount of texts already existing in the semiosphere and the closed nature of the center. The actual size of a semiotic bomb would depend on the feasibility of presenting texts within the semiosphere, gradually increasing its load in time. This leads to different issues on momentum and text interaction, but for the purpose of this model, we will simply state that the detonation process itself will probably depend on the rapidity of cultural elements appearing: Make it too fast and it will be easily detectable; make it too slow and it may dilute into oblivion. However, the abstract point to make is that given a sufficient amount of different cultural elements that point towards a specific core, we may have a chance to produce an artificial explosion in culture. The gist of the statistical argument is that the more texts in the casing, the more likely we will be to succeed in detonating a semiotic bomb.

The second argument is an aesthetic one, but its sheer randomness and complexity makes it much harder to put into action. The idea is that for a core, what is needed is something that profoundly appeals to cultural consumers or actors at large to the point that the core will explode not by virtue of sheer numbers, but by the quality of the work. The problem with this view is that the artificiality of aesthetics is generally detectable, either because of the distribution of knowledge or by individual intuition, and that the proper development of an aesthetically impactful cultural object appears to be less of an act of engineering than we may expect. The reason why this is a plausible argument, however, lies in the existence of applied propaganda as marketing, where elements of consumption make one particular text stand out as relevant. A case can be made about superhero movies¹¹ as an individual text, its impact having an explosive relevance over film-making and general cultural consumption, but while the jury is still out on that one, there is reason to believe this engineering of a text with actual economic and aesthetic results can be considered a type of hybrid semiotic bomb, where the aesthetics of the text as a whole are coupled with a propagation machine in the sense of the statistical argument. However, such a cultural event may not fully entail the sense of a semiotic bomb as we have been using it in that there does not seem to be any *conceptual core* to the text. A more thorough analysis is necessary to fully understand the phenomenon from this perspective.

11 Or rather, specific universe-confined superhero movies.

4.4 Bombs, messages and surrogate art

Essentially, a semiotic bomb should be a theoretical device capable of expressing an idea that can produce change in its cultural environment. Lotmanian explosion—the natural phenomenon of rapid and far-reaching cultural change—is the expression of this change in culture, and unpredictable as it is, the idea of the semiotic bomb is to produce a more or less predictable way of generating the effect of an explosion. This, of course, is only a theoretical construct, but, as we have seen earlier, information warfare holds the key to the feasibility of the idea.

Let's imagine we want to convey the idea that people ought to drink more water as our conceptual core. This core implies a kind of behavioral change, but in order to enact such change, we need not only to get the message across, but to make it compelling so as to foster said behavioral change. An advertisement campaign will do just that: Present the idea throughout multiple avenues (a casing) and in a compelling fashion (a trigger). Figuring out what counts as compelling is already a functional part of advertising, and practices often resort to *covert* means of influencing the receivers of these messages (Wojdyski and Evans 2020). Advertising, in this context, exploits semiotic functions to cause behavioral change, as first seen through Morris. In an overview of unconventional methods of advertisement, Peverini (2014) recognizes that efficacy of the message is related to the framing of the discursive strategies of warning, suggestion and condemnation (222), echoing the point that humans both prescribe and self-prescribe in terms of social control (Morris 1946: 208). These unconventional means act as a sort of trigger—a message getting across by unexpected means becomes more effective in the right context (Peverini 2014: 226). If we want to convey the message that people ought to drink water, we need to be able to present it to the subjects we are interested in influencing, by means that will make the message compelling—displaying perhaps shocking or suggesting images of dryness, thirst or disease by means other than traditional advertising forms.

The scale and breadth in which we have been referring to the possibility of a semiotic bomb stand, however, at a higher level in terms of reach. Although examples from advertising help us understand just what the principles in action are when compelling people to do things, it is, we could suggest, insufficient to cause an explosion in the Lotmanian sense. Instead we argue, with Arkhipova and Viidalepp (2023), that multidimensionality and large scale can effect changes in cultural dynamics (155).¹²

¹² Arkhipova and Viidalepp (2023) use the case of mass AI-generated texts as an example of change within the semiosphere. This can be extended to all forms of texts, but the example of AI-generated content is one of the more pressing issues at hand, and a good exemplification of how a semiotic bomb could be crafted.

A semiotic bomb as a means of Lotmanian explosion requires extreme efficiency, revealing thus the reach of explosion itself. Lotman (2010) doesn't believe that powerful explosions can "encompass the entirety of the complex richness of social layers" (166), and the core of the semiosphere can sustain such hits, but change is an immediate effect, with long-lasting implications. Lotman's focus on the artistic text gives priority to explosion from an aesthetic perspective, but he does recognize that textual variety is at the heart of the contradiction of perception of texts within the cultural system (116). For our bomb to be effective, it must be grounded in a variety of texts. Moreover, Lotman reminds us that in artistic creation, the real and the surrogate are in conflict (120), with unauthentic art having the power to instruct, propagandize, moralize and so on. We can perhaps connect this to Lotman's *imitative explosions* (9), but this is only mentioned in passing in his work. The general idea seems to be that imitative art, whatever may qualify as such, is an inorganic way of manipulating the cultural space. In any case, an explosion will still have the power to modify behavior in culture. Whether organic and inorganic explosions can be separated beyond a post-hoc analysis is not something we can tackle here.

5 Conclusion

Harnessing the power of explosion in the sense of Lotman's cultural semiotics can be a practical application of his theory, albeit one we should be careful with. The theoretical exercise of finding out what it takes for explosion to occur is a good exercise in trying to figure out the possibility of predicting semiotic phenomena instead of solely relying on a post-hoc understanding of cultural change. In other words, we can focus on current cultural processes *as if* they comprised a risk of explosion.

The model of a semiotic bomb that we have proposed is not only a model of how to perform explosion, it's a model of cultural explosion itself. Appealing to the bomb metaphor means that if we are capable of understanding the main components of explosion, we can explain it and perhaps even find traces to predict it. A metaphorical methodology, while unorthodox, becomes conceptually transparent and hopefully informative, but it follows in line with the explosion metaphor of Lotman. This, we believe, is a strength when offering this analytical alternative for understanding the dynamics of explosion.

While this is simply a first step in modeling the phenomenon of explosion in culture, more can be done to characterize, for instance, the detonation processes,

formalizing the plausibility and effectiveness of the process by looking at how we understand the size of the different parts of the semiosphere. That is, a more concrete analysis of semiospheric volume is also needed for a concrete application of the theory, but these are all steps that can be taken towards an active theory of explosion from within Lotmanian semiotics.

References

- Aïmeur, Esma, Sabrine Amri & Gilles Brassard. 2023. Fake news, disinformation and misinformation in social media: A review. *Social Network Analysis and Mining* 13(1). 30.
- Anderson, Chris W. 2021. Fake news is not a virus: On platforms and their effects. *Communication Theory* 31(1). 42–61.
- Arkipova, Daria & Auli Viidalepp. 2023. Lotman's semiotics of culture in the age of AI: Analyzing the cultural dynamics of AI-generated video art in the semiosphere. *Semiotica* 2023(255). 149–160.
- Auerbach, Jonathan & Russ Castronovo. 2013. Introduction. In Jonathan Auerbach & Russ Castronovo (eds.), *The oxford handbook of propaganda studies*, 1–16. Oxford: Oxford University Press.
- Bartholomew, Mark. 2010. Advertising and social identity. *Buffalo Law Review* 58(4). 931–976.
- Baskarada, Sasa. 2011. Towards a semiotic information position framework for network-centric warfare. In *Paper presented at the 16th international command and control research and technology symposium (ICCRTS)*, Québec City, Canada, 21 June.
- Bennett, W. Lance & Steven Livingston. 2023. A brief history of the disinformation age: Information wars and the decline of institutional authority. In Susana Salgado & Stylianos Papathanassopoulos (eds.), *Streamlining political communication concepts: Updates, changes, normalcies*, 43–73. Cham: Springer International Publishing.
- Borges, Priscila M. & Renira R. Gambarato. 2019. The role of beliefs and behavior on facebook: A semiotic approach to algorithms, fake news, and transmedia journalism. *International Journal of Communication* 13. 603–618.
- Deledalle, Gérard. 2000. *Charles S. Peirce's Philosophy of signs: Essays in comparative semiotics*. Bloomington: Indiana University Press.
- Dewey, John. 1946. Peirce's theory of linguistic signs, thought, and meaning. *The Journal of Philosophy* 43(4). 85–95.
- Eco, Umberto. 1986. *Travels in hyperreality*. San Diego: Harcourt.
- Gherlone, Laura. 2016. Waiting for history. On the eve of explosion. In *New semiotics between tradition and innovation: Proceedings of the world congress of the IASS/AIS*, 97–103. Sofia: New Bulgarian University Publishing House & IASS Publications.
- Gherlone, Laura. 2022. Explosion. In Marek Tamm & Peeter Torop (eds.), *The companion to Juri lotman : A semiotic theory of culture*, 282–295. New York: Bloomsbury Academic.
- Hartley, John. 2004. Television, nation, and indigenous media. *Television & New Media* 5(1). 7–25.
- Köppel-Yang, Martina. 2003. *Semiotic warfare: The Chinese avant-garde, 1979-1989. A semiotic analysis*. Hong Kong: Timezone 8.
- Kull, Kalevi. 2005. Semiosphere and a dual ecology: Paradoxes of communication. *Sign Systems Studies* 33(1). 175–189.

- Kurtz, A. 2007. Semiotic warfare. In G. L. Anderson & K. G. Herr (eds.), *Encyclopedia of activism and social justice*, vol. 1, 1276. Thousand Oaks: SAGE Publications.
- Lotman, Yuri. 1988. The semiotics of culture and the concept of a text. *Soviet Psychology* 26(3). 52–58.
- Lotman, Yuri. 2001. *Universe of the mind: A semiotic theory of culture*. London: I.B.Tauris.
- Lotman, Yuri. 2010. *Culture and explosion*. Berlin: Mouton De Gruyter.
- Lotman, Yuri. 2011. The place of art among other modelling systems. *Sign Systems Studies* 39(2/4). 249–270.
- Lotman, Yuri. 2013. *The unpredictable workings of culture*. Tallinn: Tallinn University Press.
- Lotman, Yuri, Boris Uspensky & Mihaychuk George. 1978. On the semiotic mechanism of culture. *New Literary History* 9(2). 211.
- Mäliksoo, Maria. 2016. Liminality and contested europeanness: Conflicting memory politics in the baltic space. In Eiki Berg & Piret Ehin (eds.), *Identity and foreign policy: Baltic-Russian relations and European integration*, 65–84. New York: Routledge.
- Mead, George H. 1925. The genesis of the self and social control. *International Journal of Ethics* 35. 251–277.
- Monticelli, Daniele. 2019. Borders and translation: Revisiting Yuri Lotman's semiosphere. *Semiotica* 2019(230). 389–406.
- Moreno, Jonathan D. 1983. The dewey-morris debate in retrospect. *Transactions of the Charles S Peirce Society* 19(1). 1–12.
- Morris, Charles. 1946. *Signs, language and behavior*. New York: Prentice-Hall.
- Nöth, Winfried. 2006. Yuri Lotman on metaphors and culture as self-referential semiospheres. *Semiotica* 161. 249–263.
- Nöth, Winfried. 2015. The topography of Yuri Lotman's semiosphere. *International Journal of Cultural Studies* 18(1). 11–26.
- Paolucci, Claudio. 2023. Pre-truth: Fake news, semiological guerrilla warfare, and some other media and communication revolutions. *Media and Communication* 11(2). 101–108.
- Parmentier, Richard J. 2016. *Signs and society: Further studies in semiotic anthropology*. Bloomington: Indiana University Press.
- Peverini, Paolo. 2014. Environmental issues in unconventional social advertising: A semiotic perspective. *Semiotica* 2014(199). 219–246.
- Rander, Tanel. 2012. Internationality meets locality – ART IS KUKU NU UT festival in tartu. *Estonian Art* 30/31. 19–21.
- Richardson, Nick. 2017. Fake news and journalism education. *Asia Pacific Media Educator* 27(1). 1–9.
- Semenenko, Aleksei. 2016. Homo polyglottus: Semiosphere as a model of human cognition. *Sign Systems Studies* 44(4). 494–510.
- Short, T. L. 2004. The development of Peirce's theory of signs. In Cheryl Misak (ed.), *The cambridge Companion to Peirce*, 214–240. Cambridge: Cambridge University Press.
- Tamm, Marek. 2019. *Introduction: Yuri Lotman's semiotic theory of history and cultural memory*, vol. 1–26. Cham: Springer Nature.
- Tandoc, Jr. & C. Edson. 2019. The facts of fake news: a research review. *Sociology Compass* 13(9). e12724.
- Torop, Peeter. 2010. Foreword: Lotmanian explosion. In *Juri lotman, culture and explosion*, xvii–xxxix. Berlin: Mouton De Gruyter.
- Virilio, Paul. 2006. *The information bomb*. London: Verso.
- Wojdyski, Bartosz W. & Nathaniel J. Evans. 2020. The Covert Advertising Recognition and Effects (CARE) model: processes of persuasion in native advertising and other masked formats. *International Journal of Advertising* 39(1). 4–31.

Bionote

Claudio Julio Rodríguez Higuera

Department of General Linguistics, Palacký University, Olomouc, Czech Republic

claudiojrodriguez@gmail.com

<https://orcid.org/0000-0003-3778-5369>

Claudio Julio Rodríguez Higuera is an assistant professor in the Department of General Linguistics, Palacký University. His research interests include biosemiotics, human and non-human cognition, semantics and metatheory in the humanities. His publications include “Is meaning commensurable in scientific theories?” (2023), “Charles Peirce’s Philosophy and the Intersection Between Biosemiotics and the Philosophy of Biology” (2024), “The Role of Metaphors in Model-Building Within the Sciences of Meaning” (2023) and “Biosemiotics and Evolution” (2023)