









## LEXIA. RIVISTA DI SEMIOTICA

LEXIA. JOURNAL OF SEMIOTICS

25-26

# Lexia

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CIRCE "Centro Interdipartimentale

di Ricerche sulla Comunicazione"

con sede amministrativa presso

l'Università di Torino

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via Sant'Ottavio, 20

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Registrazione presso il Tribunale di Torino n. 4 del 26 febbraio 2009

Amministrazione e abbonamenti /
Administration and subscriptions

Gioacchino Onorati editore S.r.l. – unip.

via Vittorio Veneto. 20

00020 Canterano (RM)

info@gioacchinoonoratieditore.it

info@aracneeditrice.it

Skype Name: aracneeditrice

www.aracneeditrice.it

La rivista può essere acquistata nella sezione acquisti del sito www.aracneeditrice.it

È vietata la riproduzione, anche parziale, con qualsiasi mezzo effettuata compresa la fotocopia, anche a uso interno o didattico, non autorizzata

I edizione: dicembre 2016 ISBN 978-88-255-0315-9 ISSN 1720-5298-26

Stampato per conto della Aracne editrice int.le S.r.l. nel mese di giugno 2016 presso la tipografia «System Graphic S.r.l.» 00134 Roma – via di Torre Sant'Anastasia, 61

«Lexia» adotta un sistema di doppio referaggio anonimo ed è indicizzata in SCOPUS– SCIVERSE

«Lexia» is a double–blind peer–reviewed journal, indexed in SCOPUS–SCIVERSE

# Lexia. Rivista di semiotica, 25–26 Viralità. Per una epidemiologia del senso

Lexia. Journal of Semiotics, 25–26 Virality. For an epidemiology of meaning

a cura di edited by Gabriele Marino Mattia Thibault



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# From Hypochondria to Hyperchondria

Health Communication in the Web Era

SIMONA STANO\*

TITOLO ITALIANO: Dall'ipocondria all'ipercondria: la comunicazione sanitaria ai tempi del web

ABSTRACT: The number of people looking for online health information has rapidly increased in recent years, and is still increasing. Among the consequences of such a phenomenon, several scholars and professionals identified a new form of widespread hypochondria, which is known as "cyberchondria" or "web-hypochondria". There are hundreds of data available on the Web that do not reassure health seekers at all, but rather lead them to compulsively look for new information, also making them believe that they suffer from (or may easily suffer from) specific diseases without a reliable diagnosis. In other words, common hypochondria i.e. the debilitating condition resulting from a dysfunction in the perception of the condition of body or mind in the absence of evidence of organic pathology (Avia and Ruiz 2005) — has progressively turned into hyperchondria — i.e. a new, amplified, and unrestrained form of "mass hypochondria", which finds in the Web its privileged means of communication. This paper aims at analysing the communicative processes and the meaning-making dynamics related to health communication in the Web era by making reference to the specific case of the MMR vaccine, which has widely spread through the Internet and has had important consequences on people's thoughts ad behaviours. Finally, the results of such an analysis are related to a more general discussion on virality and its functioning logics.

кеуwords: health communication; vaccines; hypochondria; hyperchondria; Internet; virality.

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#### 1. Introduction: Health Communication and "Hyperchondria"

In 2014 the Flemish online platform *Gezondheid en Wetenschap* released the short movie *Don't Google it* in order to denounce present day's online self–diagnosis and the effect of widespread hypochondria resulting from it. In the movie, a middle–age woman, worried for her husband's health, searches online information on infections caused by fingers' injuries. As she finds new information on possible effects, her husband's finger, initially just slightly scraped, visibly worsens, until it falls off and even causes him terrible nosebleeds and contagious skin swelling. The last screenshot then clarifies the meaning of such a message: "Don't google it, check a reliable source".

This ironic video immediately recalls the first humoristic pages of Jerome K. Jerome's *Three Men in a Boat (To Say Nothing of the Dog)* (1889):

It is a most extraordinary thing, but I never read a patent medicine advertisement without being impelled to the conclusion that I am suffering from the particular disease therein dealt with in its most virulent form. The diagnosis seems in every case to correspond exactly with all the sensations that I have ever felt.

I remember going to the British Museum one day to read up the treatment for some slight ailment of which I had a touch — hay fever, I fancy it was. I got down the book, and read all I came to read; and then, in an unthinking moment, I idly turned the leaves, and began to indolently study diseases, generally. I forget which was the first distemper I plunged into — some fearful, devastating scourge, I know — and, before I had glanced half down the list of "premonitory symptoms," it was borne in upon me that I had fairly got it.

I sat for a while, frozen with horror; and then, in the listlessness of despair, I again turned over the pages. I came to typhoid fever — read the symptoms — discovered that I had typhoid fever, must have had it for months without knowing it — wondered what else I had got; turned up St. Vitus's Dance — found, as I expected, that I had that too, — began to get interested in my case, and determined to sift it to the bottom, and so started alphabetically — read up ague, and learnt that I was sickening for it, and that the acute stage would commence in about another fortnight. [...] I plodded conscientiously through the twenty–six letters, and the only malady I could conclude I had not got was housemaid's knee.

I felt rather hurt about this at first; it seemed somehow to be a sort of slight. Why hadn't I got housemaid's knee? Why this invidious reservation? After a while, however, less grasping feelings prevailed. I reflected that I

had every other known malady in the pharmacology, and I grew less selfish, and determined to do without housemaid's knee. [...]

I sat and pondered. I thought what an interesting case I must be from a medical point of view, what an acquisition I should be to a class! Students would have no need to "walk the hospitals," if they had me. I was a hospital in myself. All they need do would be to walk round me, and, after that, take their diploma.

Then I wondered how long I had to live. I tried to examine myself. I felt my pulse. I could not at first feel any pulse at all. Then, all of a sudden, it seemed to start off. I pulled out my watch and timed it. I made it a hundred and forty–seven to the minute. I tried to feel my heart. I could not feel my heart.

It had stopped beating. I have since been induced to come to the opinion that it must have been there all the time, and must have been beating, but I cannot account for it. I patted myself all over my front, from what I call my waist up to my head, and I went a bit round each side, and a little way up the back. But I could not feel or hear anything. I tried to look at my tongue.

I stuck it out as far as ever it would go, and I shut one eye, and tried to examine it with the other. I could only see the tip, and the only thing that I could gain from that was to feel more certain than before that I had scarlet fever. I had walked into that reading—room a happy, healthy man. I crawled out a decrepit wreck.

I went to my medical man. He is an old chum of mine, and feels my pulse, and looks at my tongue, and talks about the weather, all for nothing, when I fancy I'm ill; so I thought I would do him a good turn by going to him now. "What a doctor wants," I said, "is practice. He shall have me. He will get more practice out of me than out of seventeen hundred of your ordinary, commonplace patients, with only one or two diseases each." So I went straight up and saw him, and he said: "Well, what's the matter with you?"

I said: "I will not take up your time, dear boy, with telling you what is the matter with me. Life is brief, and you might pass away before I had finished. But I will tell you what is not the matter with me. I have not got housemaid's knee. Why I have not got housemaid's knee, I cannot tell you; but the fact remains that I have not got it. Everything else, however, I have got." And I told him how I came to discover it all.

Then he opened me and looked down me, and clutched hold of my wrist, and then he hit me over the chest when I wasn't expecting it — a cowardly thing to do, I call it — and immediately afterwards butted me with the side of his head. After that, he sat down and wrote out a prescription, and folded it up and gave it me, and I put it in my pocket and went out.

I did not open it. I took it to the nearest chemist's, and handed it in. The man read it, and then handed it back. He said he didn't keep it. I said: "You are a chemist?" He said: "I am a chemist. If I was a co-operative stores and

family hotel combined, I might be able to oblige you. Being only a chemist hampers me."

I read the prescription. It ran:

"I lb. beefsteak, with
I pt. bitter beer
every 6 hours.
I ten-mile walk every morning.
I bed at II sharp every night.
And don't stuff up your head with things you don't understand."

I followed the directions, with the happy result — speaking for myself — that my life was preserved, and is still going on. ([2004], pp. 4–7)

Exactly as in Jerome's novel, also in the Flemish movie each discovery — which is achieved no longer in the alphabetical order characterising a renowned book kept in the British Museum, but according to the hyper–textual and collective logic of the Internet — corresponds to the certainty of suffering from a new illness. Furthermore, the iconic language enhances the ironic effect of the 2014 video, through an accurate use of visual hyperboles.

In fact, according to the 2006 Pew Internet and American Life Project, 80% of American Internet users — corresponding to about 113 million Americans over the age of 18 years — used to search for health–related information online. 66% of health seekers began their last online health inquiry on search engines (such as Google or Yahoo), while only 27% began at a health–related website. What is more, only 15% of health seekers said they "always" checked the source and date of online information, while another 10% said they did so "most of the time" (Fox 2006). And a 2010 study commissioned by the U.S. Department of Health and Human Services reported a further worsening: only 4% of Americans looking for health advice online considerately examined the source of the information and only 2% disclosed how the content was updated (CDC Wonder Data 2010).

Similar data describe the European situation. More specifically, according to the CENSIS (Centro Studi Investimenti Sociali), in 2010 "cyberchondria" — that is, "the unfounded escalation of concerns about common symptomatology, based on the review of search results and literature on the web" (White and Horvitz 2009; cf. Aiken et al. 2012) — concerned 16.6 million Italians. A more recent study

(Eurisko 2013) further increased these numbers: in 2013 two—thirds of Italians used to seek medical and health information on the Internet. Accordingly, the guidelines for online health communication ("Linee Guida per la Comunicazione on line in tema di Tutela e Promozione della Salute") issued by the Italian Ministry of Health (2010) reported that:

- Women, teenagers and people from the medium-high socio-economic class are more likely to use the Internet to seek health information;
- Almost all survey respondents used search engines (Google, Yahoo, etc.) to access such information. Among the sources of information, the most used proved to be the Ministry of Health's webpage (24%), Wikipedia (20%) and a number of patients associations' websites (17%);
- Online communication tends to promote a social construction and a collective process of meaning—making of the disease.

These data moved the focus of attention to two crucial aspects:

a) On the one hand, the stigmatization of cyberchondria or "web-hypochondria": there are hundreds of data available on the Web that do not reassure the web-hypochondriacs at all, but rather lead them to compulsively seek new information. According to Giuseppe Lavenia, professor of dynamic psychology at the University of Urbino, the *information overload* characterising the Internet — that is, an excess of information that causes people's difficulty to process it — has originated a new, amplified, and unrestrained form of "mass hypochondria" (cf. Imperatore 2010). In other words, we could argue that hypochondria — that is, a debilitating condition resulting from a dysfunction in the perception of the condition of body or mind in the absence of evidence of organic pathology (Avia and Ruiz 2005, p.

I. The word hypochondria (or hypochondriasis) derives from the Greek term  $\dot{\nu}$ ποχόνδριος (hypokhondrios), composed of hypo-, "under", and khondros, "cartilage" (in this case, of the false ribs); it literally means "lateral regions of the upper abdomen," but has taken on the meaning of "depression of melancholy without real cause" (1660s) and "unfounded belief that one is sick" (1816) over time (Online Etymology Dictionary 2016).

- 301) has progressively turned into *hyperchondria*<sup>2</sup> that is, a new and extremely widespread form of hypochondria fostered especially by Web communication.
- b) On the other hand, the need for an attentive study of the main features of the so-called "patient 2.0" in order to improve "e-health". As a result, several scholars have emphasised a number of characteristics intrinsic to the Web that make it a powerful means for health communication:
- The anonymous and virtual relation established between doctors and patients;
- The immediate access to information;
- The extremely low costs of the service;
- The possibility of a direct contact with other patients experiencing similar symptoms.

On the contrary, the main problems concerning e-health include the scarcity of accreditations certifying the sources of the information it provides and the existence of — generally not easily identifiable conflicts of interest behind it.

# 2. The Case Against Immunisation: Vaccines and Online Communication

Among the several examples that could be analysed, this paper deals with the recent case of vaccines, which is extremely interesting in relation to online health communication.

2. The prefix "hyper" is here preferred to "cyber" or "web" since it effectively recalls the basic elements characterising this new form of hypochondria: (i) its extremely amplified character (i.e. hyper as "word–forming element meaning 'over, above, beyond', and often implying 'exceedingly, to excess', from Greek hyper, 'over, beyond, overmuch, above measure'", Online Etymology Dictionary 2016), and (ii) the crucial role played by Web communication in its rapid development (i.e. hyper as prefix referring to the hypertext, which is the underlying logic of the World Wide Web enabling an easy access to and sharing of information, cf. Encyclopaedia Britannica Online 2016, s.v. Hypertext).

#### 2.1. Vaccines: Supporters and Detractors

A vaccine is "an antigenic substance prepared from the causative agent of a disease or a synthetic substitute, used to provide immunity against one or several diseases" (Oxford Dictionaries 2016). Vaccines are among the most efficient tools for promoting individual and public health (Andre *et al.* 2008), and they have greatly reduced the burden of infectious — and sometimes lethal — diseases.

Nonetheless, in recent years there has been a large debate on the so-called "MMR vaccine", which is an immunisation vaccine against measles, mumps, and rubella. This vaccine is usually administered to children between 12 and 15 months, with a second dose before starting school (i.e., between 4 and 6 years). This second dose is used to immunise the small amount of patients (2–5%) who fail to develop measles immunity after the first injection.

In 1998 Andrew Wakefield (and other scientists who later retracted their names from the study) published an article on *The Lancet* — one of the oldest and most influential medical journals — claiming a direct relation between the MMR vaccine and the development of autism and some chronic intestinal pathologies. In 2010 the General Medical Council declared Wakefield's research "dishonest", and *The Lancet* retracted his paper. As a result, Wakefield was struck off the UK medical register, and the *British Medical Journal* also declared his research "fraudulent" in 2011. Nevertheless, this case caused a considerable drop in vaccination rates not only in Britain (from 93% to 75%), but also at an international level; and the number of "vaccination sceptics" is still growing, while several breakouts of diseases that were considered wiped out thanks to vaccines (e.g., measles) have been reported in recent years.

### 2.2. Vaccines Go "Viral": Irony, Misunderstandings, and Hoaxes

Not only the MMR case is related to viruses from the medical point of view, but it also became *viral* in terms of communication, affecting present day's perceptions and behaviours in spite of any official rejection and legal action against its fraudulent promoter. As a result, antivaccinist messages appeared everywhere, originating enduring "conspiracy theories" (see Leone 2016) — which commonly claim

that vaccines kill children by poisoning them or rather denounce the economic interests and corruption behind the vaccination industry (Figs. 1 and 2) — that spread like wild fire through the mass and new media and are still very powerful.



Figure 1. Examples of antivaccinist propaganda on the web.

On the other hand, the debunkers' response to the "antivaccinist movement" also found expression through a number of posts, online forums, weblogs, Facebook pages, TV shows, books, cartoons, etc.

In some cases these messages aim at debunking hoaxes on vaccination by providing accurate information on how immunisation works, or evidences of the falseness of Wakefield's research and the conflicts of interest behind it (Fig. 3). In other cases such an informational



Figure 2. Examples of antivaccinist ironic memes.

communication leaves room to irony. This is the case of *Lercio.it* — an Italian satirical website that features fictional news, whose humorous, comic and grotesque tone make fun of contemporary sensational journalism —, which in 2014 released a provocative article entitled "Anziano muore in un incidente stradale, la famiglia: 'L'ha ucciso il vaccino'" [*Elderly man dies in a car accident; his family: 'A vaccine killed him'*, our translation]:

Matusa (LM) — Ennesima morte sospetta legata ai vaccini antinfluenzali, la quindicesima in pochi giorni. Stavolta a perdere la vita è stato il signor Tarcisio Argh, 92enne abitante a Matusa.

Il decesso improvviso ha reso necessaria l'apertura di un'inchiesta per



**Figure 3.** Examples of debunkers' responses to the antivaccinist movement (informational model).

accertare le cause della morte. Qualora l'indagine confermasse i sospetti che circolano in queste ore, si procederà al ritiro dal commercio del vaccino "Fland" — prodotto dalla casa farmaceutica Nosferatu — già somministrato a milioni d'italiani.

I familiari della vittima però non sembrano avere dubbi: "Fino a pochi giorni fa stava benissimo, era completamente autosufficiente e lucido, guarda caso dopo essersi vaccinato è morto schiantandosi contro un platano. È inaccettabile, vogliamo delle risposte".

Pare infatti che l'anziano, appena 58 giorni dopo l'assunzione del vaccino Fland, si sia messo alla guida della propria Panda color pistacchio, senza frizione e con un semiasse in frantumi, ed abbia perso il controllo dell'auto centrando in pieno il grosso esemplare di *Platanus Acerifolia* (al momento ricoverato in prognosi riservata presso l'orto botanico di Matusa).

La correlazione con il vaccino pare più che mai evidente. Non la pensa così l'Aifa (Agenzia italiana del farmaco): "I vaccini prima di esser messi in commercio sono testati più e più volte, non c'è possibilità di errore. I platani però continuano ad essere un grande ostacolo sia per noi, sia per la scienza in generale, ma la ricerca non si fermerà certo qui".

Purtroppo stavolta qualcosa sembra davvero essere andato storto. "Non ci aspettavamo una cosa del genere" — continuano in lacrime alcuni parenti — "eravamo sicuri fosse andato tutto bene, non aveva contratto nemmeno la sindrome di down. Una cosa è certa, non ci vaccineremo più, preferiamo morire a 42 anni" — concludono amareggiati (Pica 2014).

[Matusa (LM) — Yet another suspicious death related to anti-flu vaccines, the fifteenth in a few days. This time Mr. Tarcisio Argh, a 92 year-old man living in Matusa, died.

His sudden death made the police open an inquiry to ascertain its cause. If it will confirm the suspicions circulating in these hours, the "Fland" vaccine — produced by the Nosferatu pharmaceutical company —, which has already been administered to millions of Italians, will be withdrawn from the market.

However, the victim's relatives have no doubts: "Until a few days ago he was fine, completely self–sufficient and clear headed. Strangely enough, after he was vaccinated, he died crashing into a plane tree. This is unacceptable, we want answers."

In fact, it seems that the old man, just 58 days after been administered the "Fland" vaccine, lost control of his pistachio—coloured Panda, with no clutch and a broken driveshaft, and hit a big Platanus Acerifolia (which is currently hospitalized with reserved prognosis at the botanical garden in Matusa).

The link with the vaccine seems more evident than ever. But the AIFA (Italian Medicines Agency) does not agree: "Before vaccines are launched on the market, they are tested over and over again. There is no possibility of error. Conversely, plane trees still represent a major obstacle both for us and for science in general. Anyway the research will certainly not stop here."

Unfortunately this time something really went wrong. "We did not expect such a thing" — the man's relatives complain — "we were sure he was fine, he even did not contract the Down syndrome. One thing is certain: we will not vaccinate ourselves anymore, we prefer to die at 42" — they sadly conclude. [(Pica 2014), our translation]

The ironic tone of this post makes fun of both the pharmaceutical business, which generally tends to *a priori* deny any consequence

of drugs use, and the antivaccinists' claims, which tend to establish unfunded relations between factors that in fact are not linked to each other<sup>3</sup>. This same logic characterises another post (De Giuli Caldarini 2015), which provocatively associates vaccines to the jihadist militant group ISIS (as if they were part of its weapons of mass destruction) (Fig. 4): "A new threat from ISIS: "We will administer vaccines to your children!" [our translation].



**Figure 4.** Lercio's post on vaccines, 22/10/2015.

Another case is particularly interesting: a couple of years ago, the humour website *Photoshop Phriday* launched a competition requiring applicants to create an ironic image on the correlation between vaccines and physical or mental diseases generally blamed by antivaccinists. One of the results paradoxically related vaccines to heroin,

3. In this respect, it is very interesting to note that several people reported symptoms that have no proved relation to the administration of vaccinations among the effects they experienced after being vaccinated. For this reason, for instance, the drug facts of the Diphtheria and Tetanus Toxoids and Acellular Pertussis Vaccine Adsorbed *Tripedia* include motor vehicle accident and accidental drowning among its adverse reactions (even though they emphasise that "these events occurred more than two weeks post immunization").

ironically claiming that research had shown that "children who are vaccinated are 85% more likely to inject heroin than those who are not". Unfortunately, such an image was taken seriously by antivaccinists' propaganda, which accused vaccines of "serv[ing] as a gateway drug to heroin" (Feminists Against Vaccination, 2015 — Fig. 5) by sharing such information as real.



Figure 5. Feminists Against Vaccination's post against vaccines, 26/10/2015.

#### 3. Conclusion: From Vaccines to Viruses (of Another Kind)

The above–described case of vaccines effectively shows how virality can lead to a sort of "semiotic short–circuit", which in turn tends to bring with it misinformation, hoaxes, and conspiracy theories. But what is "virality"? And what do the here–analysed examples tell us about its logics and functioning mechanisms?

First of all, it should be remarked that the common analogy with viruses suggests the idea of a *contagion* that takes advantage of the porous borders of the semiosphere (cfr. Lotman 1985) to allow specific elements to penetrate — and therefore irreparably infect — the DNA of culture. In accordance with microbiology, such a model conceives viral texts as small infectious agents existing in the form of independent particles (the so-called "virions"), whose DNA (or RNA) — which is protected by a protein capsule and other layers that make it impenetrable from the outside — is capable of infecting the DNA of culture's "cells" — which, on the contrary, have porous borders and are open to osmotic processes, as we remarked above. Viral particles are able to evolve and reproduce precisely by means of such a process, that is, by "poisoning" (as the etymology of the word *virus* suggests) a host organism whose immune system is not able to impede — or at least limit — such a contagion.

Yet the above—analysed examples highlight a crucial factor: "viral texts" do change, and their mutation is not independent at all from those who receive and share them. The porosity of culture is not to be confused with the passivity of those who belong to it, as Lotman effectively pointed out by insisting on ideas such as the semiosphere' resistance to change and the distinction between central and peripheral elements within it. Subjects living in the semiosphere cannot be conceived as passive receptors, since they actively intervene on texts, making them become "viral" precisely through an act of appropriation that refers not only to a specific will but also to a particular knowledge (from the simple act of understanding such texts to their ironic re—semantisation, etc.).

In order to emphasise these aspects, Henry Jenkins, Sam Ford, and Joshua Green (2013) introduced the opposition between *spreadable media* and *viral media*:

The concept of "spreadability" preserves what was useful about earlier communication models — the idea that the effectiveness and impact of messages is increased and expanded by their movement from person to person and community to community. Spreadability recognizes the ways later theorists such as van der Graaf have revised the earliest, relatively static and passive conceptions of "viral" to reflect the realities of the new social web, while suggesting that this emerging paradigm is so substantively different from the initial examples that it requires adopting new terminology. Our use of "spreadable media" avoids the metaphors of "infection" and "contamination," which overestimate the power of media companies and underestimate the agency of audiences. In this emerging model, audiences play an active role in "spreading" content rather than serving as passive carriers of viral media: their choices, investments, agendas, and actions determine what gets valued (p. 21).

In other words, media texts are not to be considered active subjects that infect audiences and cultures. On the contrary, they should be understood as *objects*, since — as Greimas and Courtés (1979) remarked in *Semiotics and Language: An Analytical Dictionary* — "in the framework of epistemological reflection, object is the name given to that which is thought or perceived as distinct from the act of thinking (or perceiving) and from the subject who thinks (or perceives) it" (p. 216). Viral texts are semiotic objects that cannot be defined but in their relationship to a particular subject<sup>4</sup>. — that is, audiences.

Consequently if a "contagion" takes place, it takes the shape of a contact — as the etymology of the word (deriving from the Latin term contagionem, "a touching, contact, contagion", related to contingere, "touch closely", Online Etymology Dictionary 2016) suggests —, rather than that of a contamination — as the common conception of virality assumes. In this respect, it is interesting to recall Giulia Ceriani's analysis (2004) of contamination and fusion as inter-object relationships. According to the Italian scholar, these two modi operandi relate to the semantic axis "multiplicity" vs. "unity" in opposite ways: contamination favours multiplicity, by making the original objects that are combined together (that is, "contaminated") still recognisable in the resulting object; by contrast, fusion completely denies it, by creating a new, unique object from the annihilation of the pre-existing

<sup>4.</sup> Greimas and Courtés (1979) refer to "the absence of any a priori determination of the object other than its relation to the subject" (p. 216)

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The above—analysed examples clearly show that the original contents of viral texts, such as the enunciative acts that originated them, are not always distinguishable; most commonly, a new object is generated, and all traces of the pre—existing ones are lost. If a contamination takes place, it merely represents the anticipation of a subsequent process of fusion, which in turn tends to delete any pre—existing entity in order to create a new object. Such a new object immediately becomes part of a network that — as Gilles Deleuze and Félix Guattari (1980) would say — has a *rhizomatic development*: it has no roots, nor vertical connection, since it spreads horizontally, opposing the organisational structure of the tree—system that charts causality along chronological lines and looks for the origins of things.

This fact is particularly interesting in the case of humour and especially parody. As we noticed in the case of Feminist Against Vaccination's post — and it often happens with *Lercio*'s articles —, an explicitly ironic message was completely misunderstood (and therefore shared as real information) by antivaccinists precisely because of the lack of roots indicating its origins. In fact humour and parody are among the factors that, according to Jenkins, Ford and Green (2013), make contents spread, especially when they are used to criticise specific cultural patterns characterising contemporary societies. Despite their differences<sup>5</sup>, both of these factors foster spreadability because they represent "a vehicle by which people articulate and validate their relationships with those with whom they share the joke" (Jenkins, Ford and Green, p. 204). However, they require people to know their original context in order to work effectively, otherwise they risk creating misunderstandings and aberrant decoding. This also emphasises another important factor related to spreadability, which is timeliness (cfr. ibid., pp. 213–216), as well as the crucial role played by audiences, which "pluralize the meanings and pleasures mass culture

<sup>5.</sup> The authors consider humour and parody separately because "while all humor builds on whether an audience 'gets' the joke or shares a sensibility, parody combines that aspect of humor with a specific shared reference. This is precisely what makes parody valuable — it can express shared experiences and, especially when it plays on nostalgic references, a shared history" (Jenkins *et al.* 2013, p. 207). However, both "those who are creating humor and parody claim specific common experiences with those who are laughing at the joke" (*ibid.*).

offers, evade or resist its disciplinary efforts, fracture its homogeneity or coherence, raid or poach upon its terrain" (Fiske 1989, p. 28). In other words, people produce culture precisely by integrating products and texts into their everyday lives (*ibid.*).

This perspective totally opposes viral metaphors, which, although capturing the speed with which new ideas circulate through the Internet, do "little to describe situations in which people actively assess a media text, deciding who to share it with and how to pass it along" (Jenkins, Ford and Green, p. 20). From a semiotic perspective, therefore, far from simply being passive carriers infected by media viruses, media audiences act as bricoleurs (Lévi–Strauss, 1962; Floch, 1990) that reuse and readjust the various texts at their disposal in order to express themselves and feel integrated into specific groups or communities. Evidently, the implementation of adequate patterns for online health communication cannot avoid taking these dynamics into consideration; only by doing so, in fact, it could foster a real and concrete empowerment of the so–called "patients 2.0" by providing them with an effective "vaccine" for present–day widespread "hyperchondria".

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