Storytelling of a Virus: A Focus on COVID-19 Narratives of Older Adults

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ABSTRACT

The global COVID-19 Coronavirus outbreak overwhelmed the world in 2020. The unprecedent pandemic situation, elicited by the invisible virus SARS-CoV-2,shattered people's usual benchmarks and representations of reality. Storytelling proliferates in times of crisis because this universal phenomenon allows people to structure the shapeless reality via meaning-making processes, and therefore to cope with the collective upheaval that represents the COVID-19 outbreak. The current research aims to investigate the storytelling underpinning the social construction of the invisible virus, conveyed by written and oral narratives of older adults. The automatized qualitative data analyses of older adults' written narratives ($N = 144$) demonstrated that the virus represents serious danger of sickness which arouses negative emotional reactions and the duality of life and death. The analyses of older adults' oral narratives ($N = 26$) demonstrated that their storytelling tendsto anchor the biological functioning of the virus, which remains a mystery and a source of various fears, fantasies and fascinations. Furthermore, the "war metaphor" and martial rhetoric that emerged in the storytelling of older adults indicate a shared pool of knowledge that resonates in line with theCOVID-19 mass media and political storytelling in France. Indeed, older adults' storytelling is anchored within specific spatio-temporal dimensions, as every extreme situation occurs within a particular time and space. Thus, the storytelling of a virus, that should be apprehended as a journey of meaning, demonstrates a hidden coherence and a collectively shared base of COVID-19 narratives.

Keywords: *COVID-19; virus; older adults; storytelling; narratives; meaning; emotions; spatio-temporal mapping.*

INTRODUCTION

The global COVID-19 Coronavirus pandemic that overwhelmed the world in 2020 represents one of the major large-scale societal threats of the 21st century. Such an unprecedent pandemic situation has shattered people's usual benchmarks and representations ofreality. The invisible and intangible SARS-CoV-2 virus that is at the origin of COVID-19 Coronavirus disease became an enemy we have to fight with at the individual and collective levels. The invisible virus remains constantly an object of storytelling that allows people to elaborate meaning and to construct the representation of this invisible enemy[1]. Indeed, meaning-making and social construction processes help people to achieve goals and overcome obstacles in order to cope with the psychologically challenging situation that represents the global COVID-19 breakdown[2]. Further, various forms of short-term storytelling allow people to decrease the overall feeling of anxiety and uncertainty [3] in order to cope withthreatening situations [4].

Storytelling as a Universal Activity

Storytelling represents auniversal activity that has a central role in the transmission of memories and various cultural elements between individuals [5]. The interactive conversational activity between individuals that drives the transmission of relevant information by various narratives has also a central role in meaning-makingof uncertain, novel and dangerous situations [6]. Indeed, narratives are complex cognitive processes that allow to acquire survival relevant information and that areconsistent across different cultures [7, 8].Therefore, storytelling takes important part in the context of the COVID-19 Coronavirus pandemic that is conveyed by mass media, authorities and interpersonal conversations. Storytelling has important function in people's adaptation to the extraordinary situation by contracting its meaning and sharing feelings that contribute to overcome the collective trauma [9,10]. According to some scholars, storytelling has important adaptive function primarily as a collective meaning-making in short-term daily situations, such as various gossips, rumors, legends and conspiracy theories, and also over long-term periods, such as various cultural narratives that are transmitted over generations and anchored in collective history [11].

Indeed, storytelling has several prominent functions for human beings. Firstly, individuals transmit narratives to provide audiences with relevant information that might be particularly persuasive and that allow the audience to construct

representations of the unknown object or situation [5,12,13].Although, narratives are also used by storytellers to manipulate the audience's representations about the physical and/or social environment to fit his or her fitness-enhancing aims [14, 7].Thus, private and institutional storytellingis highly transformative and powerful process of transmission and co-creation of common reality [15]. Secondly, storytelling has important evolutionary function which is to transmit a survival-relevant information. Thus, some narratives allow group members to avoid physical and social dangers and to approach benefits in order to ensure their survival [6,7,8]. Thirdly, one of the most important functions of narratives is the facilitation of social cohesion between individuals. In particular, narratives tend to create and strengthen social bonds between individuals, thereby facilitating and fostering social cohesion and cooperation that is primordial for species' survival [16,17].

Storytelling in Times of Crisis

Storytelling is proliferating in crisesthat are inherent to the human condition. Since the dawn of time, various forms of storytelling proliferate in the context of dangerous, threatening and unusual situations, such as wars, riots or natural and man-made disasters [18,19,20,21,22,23].Indeed, literary studies have paid great attention to storytelling as a fictional form of a story. In particular, Marc Marti [24]provides an enlightening synthesis on the evolution of various theoretical approaches.Marti's [24]seminal work identifies four main approaches. Firstly, the Structuralist approach, analyzes the story from the logic of an action, by proposing a proper grammar of the story: one event leads to another, in a causal logic of an intrigue. Secondly, the Genettian approach distinguishes history (cf., the statement) and the discourse (cf., the way of telling the event). The third approach presents the story as a space presenting incompleteness that the reader will fill in with his or her own subjectivity. This approach has been defended in particular by writers, such as Italian writer and semioticianUmberto Eco in his emblematic work *Lector in Fabula* [25]. Finally, the fourth approach positions the story as a product of a social and cultural context. Thus, the production of a story is intrinsically related to a particular situation that will be either cultural or generic, depending on a type of thestory.

Actually, the theoretical approaches concerning the storyabound and very often confine the storyto a fiction. Although, the recent fundamental and applied research highlights the contamination of the concept of a story in other spheres than literary and analyzewhat is currently agreed to be named as "storytelling". Thus, the art of telling stories and related theoretical approaches is spreading across various fields, such aspolitical communication and even marketing, notably with the narrative approach to branding[26]. Since the 1990s, storytelling seemed to invade multiple fields, such as law, marketing, business management, politics, therapy, etc. We are witnessing a veritable "narrative revolution" [24], according to some scholars, we are at the entry of the "narrative age" [27]which has as many followersas detractors [28].

Indeed, the storytelling approach is constructed around antagonistic viewpoints. According to the very critical approach of Salmon [29],the use of storytelling in politics tilts politics into the field of the emotional, thus deactivating the reflexive logic of citizens. Although, such a justified critical reading obscures an essential fact, which the French philosopher, literary critic and semiologist, Roland Barthes largely defends: a story, a narration is a universal device that constructs meaning. Every narrative is the bearer of a value, unifying narratives are carriers of collective values. Therefore, "the narrative is present at all times, in all places, in all societies; the history of the narrative begins with the history of mankind; there does not exist, and never have existed a people without narratives; all classes, all social groups have their narratives and very often the taste for these narratives is shared by men of different, even opposing cultures. The narrative scores division into categories of good and bad literature: transcending national, historical, cultural barriers, the narrative is there where life is" [30].

Therefore, the universal phenomenon of storytelling makespossible to structure shapeless worlds, to give meaning, and participates in a better understanding of the world. As we know, the sanitary crisis due to the presence of the invisible COVID-19 virus has completely shattered our lifestyles, our spatio-temporal benchmarks, our relationship to others. While facing such upheavals, a feeling of incomprehension, even a feeling of chaos, has greatly developed in the population. In a crisis, "people suddenly and deeply feel that the universe is no longer a rational, orderly system" [31]. While facing such an upheaval, two scenarios for returning to balance are possible: the first one consists of activating scientific knowledge in an attempt to find evidence and facts that will render possible to understand the situation; and or the second one that consists in activating the structuring function of narratives that allow to seize*a priori* insane events [32].

The trial and error of science is forced to react immediately to the COVID-19 Coronavirus outbreak elicited bythe SARS-CoV-2 virus, coupled with the mass media cacophony related to the diffusion of simplified scientific discourses. These circumstances leave a large place for the narration and narrativization of the crisis by the civilian populations, but also by politicians and certain scientists themselves. This profusion of storytellinghas necessarily an impact on ourunderstandings of the world; these narratives sometimes contradict each other, but are also woven together, thereforeconstructing an intertextual mode that offers sometimes even more confusing reading grid of the sanitary crisis.

The purpose of these narrative production processes is not to offer a true explanation of the world, but rather to offer plausible avenues for reading the world that allow us to face chaos.

Storytelling During the COVID-19 Outbreak

Thus, since the beginning of the COVID-19 crisis, research from the field of social sciences and humanities attempt to shed light on the situation we are currently living [33]. Storytelling has transformational potential that is a particularly powerful process that triggers change. Specifically, COVID-19 narratives are often spreading fear that is supposed to motive orto curb a change and that is an object of worldwide digitalization [34]. For example, Pedersen [35]investigated the pandemic of narratives that emerged simultaneously between the beginning and the end of the COVID-19 lockdown in Scandinavian countries. Furthermore, the political scientist Postel-Vinay [36] affirms the absolute necessity of storytelling of this chaotic event, while pointing out "the chronic deficit of European narrative power". Additionally, other research perspectives have focused on political narratives, in order to define their symbolic repertoire, such as martial rhetoric on the French side, and medical rhetoric on the Italianside [37].

The aim of the current researchwas to investigate the storytelling underpinning the construction of representations of the invisible COVID-19 virus conveyed by written and oral narratives of older adults, in the ex-Limousinregion (currently Nouvelle-Aquitaine region) in France. The storytelling produced by older adults have the particularity of not being "manufactured" consciously and in a conative logic (e.g., such as to make people join, to make vote, or to make buy) as it can be the case of political storytelling or the brand speech. The individuals' storytelling emanates spontaneously, nourished by mass media storytelling and interpersonal conversations about the COVID-19 crisis. Indeed, storytelling manifests, by its very existence, a narrative mechanism that is spontaneously activated to trigger a process of signification and meaning-making in the face of a situation that escapes us.

METHOD
Participants

The current research was based on written and oral narratives produced by older participants aged 60 years and older, inhabitants of ex-Limousinregion (currently Nouvelle-Aquitaine region) in France. The participants were recruited by snowball sampling procedure during the COVID-19 pandemic outbreak, during the first half of the year 2021 in France.

Gathering of Written Narratives

Specifically, the written narratives of this research were collected by an online questionnaire. The participants of the current research were inhabitants of ex-Limousin region (currently Nouvelle-Aquitaine region) in France. In particular, participants were requested to write spontaneously their most important ideas and feelings while thinking specifically about the COVID-19 virus during the COVID-19 pandemic lockdown in France. The instructions specified that their answers are anonymous and confidential and that the free association task without any constraint of production aims to investigate their perception of the COVID-19 virus. The sample of older participants ($N = 144$) that answered the online questionnaire was aged from 60 to 84 years ($M = 70.22$, $SD = 5.63$). The sample was composed equally of 50.00% males and 50.00% females, and 59.00% of participants declared that someone from their family or friends has been already infected with the COVID-19 Coronavirus disease. The older participants' written narratives were collected, coded and analyzed afterwards.

Gathering of Oral Narratives

Additionally, semi-directive research interviews were conducted afterwards, when the sanitary situation in France allowed to conduct face-to-face interviews.The semi-structured face-to-face interviews were conducted by three investigatorswith a sample ofolder participants ($N = 26$), inhabitants of ex-Limousin region (currently Nouvelle-Aquitaine region) in France, aged from 63 to 84 years. The totality of participants signed a consent to participate in the interview and an agreement torecord the audio of their interview. The semi-structured research interviews were based on an interview guide, composed of several main parts, that aimed to gather laypeople's feelings and ideas about various aspects of the COVID-19 pandemic. Specifically, the interview guide aimed to investigate the participants' knowledge, representations and emotions elicited by the COVID-19 virus and the specificities of the COVID-19, compared to other viruses. Moreover, the interview guide aimed to explore how participants were living the COVID-19 pandemiclockdown and the overall impact of the COVID-19 pandemic on various aspects of their lives, and their perception of mass media and biological images of SARS-CoV-2 virus. The totality interviewswere recorded and analyzed afterwards.

RESULTS
Automatized Qualitative Data Analyses of Written Narratives

The written narratives of older participants were analyzed by automatized qualitative data analyses that were conducted with the software IRaMuTeQ version 0.7 alpha 2 [38, 39]. The software IRaMuTeQ, which is an interface of the quantitativesoftware R version 4.1.0.for Windows, allows to conduct multidimensional analyses of text datasets. The

principle of these multidimensional analyses is based on similar principles to social network analyses that allow to quantify and represent existing relationships between specific research units [40].

The main analysis of written narratives of older participants is represented in Figure 1. The participants ($N = 144$) produced 694 text forms that are structured in several specific clusters, represented in different colors in Figure 1. The Figure 1 represents the graph of similarity analysis with the size of verbatims proportional to their frequency in the text dataset. The 694 text forms are structured in 9 main clusters, where the main cluster, represented in the dark blue color in the center of the graph is structured around the noun "Sickness" (*maladie*)which is "serious" (*grave*), and to which "vaccination" (*vaccination*) offers a solution. Older participants have apprehended the virus as danger that might cause important "sequels" (*séquelles*) to their "health" (*santé*) that makeimportant to respect the "restrictions" (*restrictions*) imposed by public policies, represented below in the green cluster.

Moreover, older participants expressed the values of "solidarity" (*solidarité*) and "freedom" (*liberté*) during the COVID-19 pandemic outbreak, represented in the red cluster. Further, participants expressed their worries related to the "risk" (*risque*) of "contamination" (*contamination*) during the "pandemic" (*pandémie*) that elicits the feeling of "stress" (*stress*) and "anxiety" (*angoisse*) and the need for "protection" (*protection*), represented in the light green cluster. The COVID-19 virus represents for the older participants the duality of "life" (*vie*) and "death" (*mort*), represented in the dark green cluster. Participants pointed out the "social isolation" (*isolement social*) as a source of "worry" (*inquiétude*) and also as a source of "concerns" (*concerner*) about the "population" (*population*), represented in the purple cluster.

Additionally, older participants expressed also the fact that the sanitary "containment" (*confinement*) that represents "danger" (*danger*) for family life (*familial*) and elicits the feeling of "solitude" (*solitude*) and "sadness" (*tristesse*), represented in the light blue cluster on the right side of the graph.Further, participants indicated that they "think" (*penser*) about their "loved ones" (*entourage*) due to the "contamination" (*contamination*) and about "economic consequences" (*économique*), and they expressed their hope that the "society" (*société*) will "exit" (sortie) the "crisis" (*crise*), represented in the brown cluster.
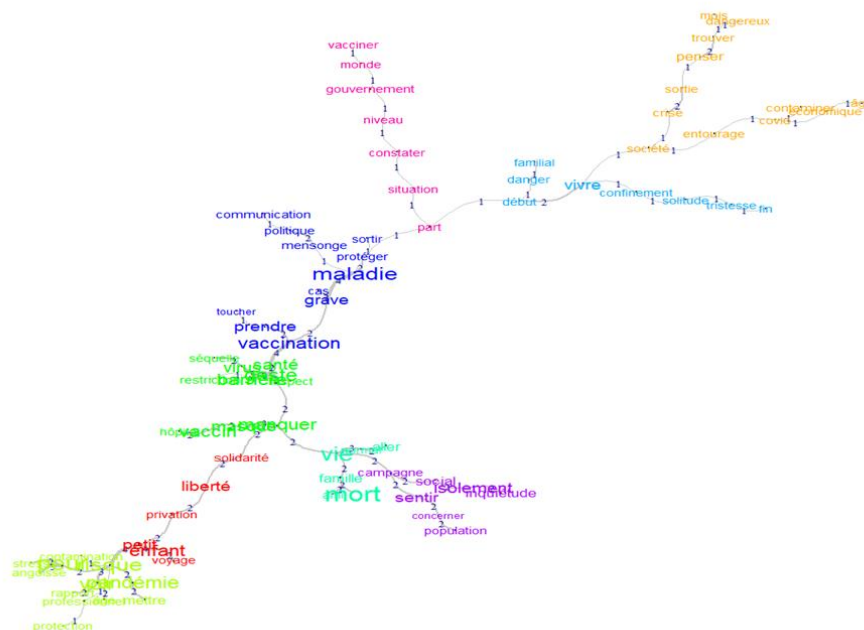

Figure 1:Graph of Similarity Analysis of Older Adults' Written Narratives Represented with Specific Color per Cluster.

The multidimensional analysis has been completed by the multivariate technique of factorial correspondence analysis that demonstrates three main discourse classes. The detailed results are represented in Table 1. These results indicate thatClass1 (34.55%) refers primarily to personal consequences of the COVID-19 virus on participants' life;Class 2 (30.91%) refers mainly to social consequences of the COVID-19 virus; and Class 3 (34.55%) indicates older participants' fear of the serious sickness elicited by the COVID-19 virus.

Table 1: *Classes obtained with the Multivariate Technique of Factorial Correspondence Analysis of Older Adults' Written Narratives*

Classes	Main Verbatims	*p*
Class 1 **34.55%**	Life *(Vie)*	<0.0001
	Vaccine *(Vaccin)*	0.00035
	Mask *(Masque)*	0.00124
	Go *(Aller)*	0.00124
	Feel *(Sentir)*	0.01420
	To lack *(Manquer)*	0.02497
	Social *(Social)*	0.02497
Class 2 **30.91%**	Child *(Enfant)*	<0.0001
	See *(Voir)*	<0.0001
	Risk *(Risque)*	<0.0001
	Report *(Rapport)*	0.00773
	Age *(Âge)*	0.00773
	Small *(Petit)*	0.01272
Class 3 **34.55%**	Fear *(Peur)*	<0.0001
	Sickness *(Maladie)*	<0.0001
	Start *(Début)*	0.00425
	Politics *(Politique)*	0.01420
	Serious *(Grave)*	0.02497

Note: *p* indicates the significance level of association between the word and the class (Chi-square)

Crisis Storytelling: Analyses of Oral Narratives

Every story is part of a temporality and a sequencing. Crisis situations, whatever the nature of the crisis, fit into the following generic sequencing: the initial situation where everything is relatively "calm", an imbalance which acts like a temporal rupture in the routines and which makes enter the populations in a collective test, and the time after the crisis, the "world after". Within this narrative framework, one must consider the narrative sequence which concerns precisely the period of testing which makes from the populations a collective actor in a conflict with the virus. In the oral narratives of older participants, we can firstly observe a first essential point: they do not just describe the virus, as an object; they integrate the virus into a succession of events. It is not the virus that matters in the end - or by necessity, since this virus is invisible, its static description is replaced by a logic of an action, but more exactly virus' modes of action on humans. Where there is no implication of human interest (where the reported events are neither produced by agents nor undergone by anthropomorphic patients), there can be no narrative, because it is only in relation to a human project that events take on a meaning and organize themselves into a structured time series [41]. Thus, we observe in the narratives produced by older participantsrecurring narrative programsthat focus in particular on the biological functioning of the virus:

- *"It has to hold on with its peaks, it goes through the body, it goes looking for cells to feed itself, it destroys the cells, it grows bigger, it has to come out and infect other people in the clusters." (Female, 72years)*

  [*« Il doit se cramponner avec ses pics, il passe dans l'organisme, il va chercher les cellules pour se nourrir, il détruit les cellules, il grossit, il doit ressortir et contaminer d'autres personnes dans les clusters. » (Femme, 72 ans)*]

The accumulation of action verbs and their sequencing very clearly signal the temporal and action logic of the storytelling and the beginning of a plot. The plot is based on a conflicting knot: the virulence of the virus is brought to light and seems to be confronted with the force of inertia. The power of the virus is such that it does not allow its target to form adversaries who would fight against it. Thus, we subscribe, in the narratives of older participants,what Bremond [40] calls the narrative logic of aggression. According to him, two sequences govern the structuring events of a narrative: the improvement to be obtained and the foreseeable degradation. It is in this first principle of dichotomous classification that he approaches the logic of aggression. The interest of this logic, is first of all, to allow a double point of view: that of the aggressor and that of the aggressed. From the perspective of the victimized, the process of aggression constitutes a peril to be avoided, setting in motion a protective process which will or will not fail. From the perspective of the virus-aggressor (the subject-virus), the goal of eliminating the adversary (the anti-subject-population) entails the damage to be inflicted, the aggressive process and the damage inflicted. In the verbatim quoted above, this is exactly what is described with the additional feeling that the sequence of the aggression is not terminative: the virus "emerges", it "infects" other people ... as in infinite.Faced with such a rapidity of the virus and the generalized uncertainty, the actants which logically should be positioned as adjuvants, no longer appear to be the authority:

- *"We wanted to know if we were going to get to the end of the problem quickly, but even the doctors didn't know. They are powerless, whether it is politics, medicine, no one knows where we are going". (Female, 72years)*

  [*« On aurait voulu savoir si on allait rapidement arriver au bout du problème, mais même les médecins n'en savent rien. Ils sont impuissants, que ce soit les politiques, le médical, personne ne sait où on va. » (Femme, 72ans)*]

- *"In medical broadcasts, we saw them unarmed. Some have said things and they have retracted. It's unhealthy". (Female, 78 years).*

  [*« Dans les émissions médicales, on les voyait désarmés. Y en a qui ont dit des choses et ils se sont rétractés. C'estmalsain.» (Femme, 78ans)*]

Thus, the adversaries appear disarmed and no reinforcement seems operational. A fight with unequal arms seems to animate the very heart of the stories produced by the older participants. While the subject, anti-subject, potential adjuvant actants are clearly identified, the question of the identity of the sponsor remains a complete mystery. Indeed, the question of the origin of the virus is at the origin of the ordeal. We are experiencing, raising questions and referring to a classic lever in narratology which is the level of a "mystery". Thus, we can identify in the followingnarratives elements characterizing the mystery, a mystery which is the source of all fantasies and fears.

- *"I can't believe it happened like this. It comes from China. We have been told about pangolin. Is this a lab leak? There are too many people on the planet, it would be a will of the powers. A war with a virus and not with weapons." (Female, 78years).*

  [*« J'ai du mal à croire que ce soit venu comme ça. Ça vient de Chine. On nous a parlé de pangolin. Est-ce une fuite d'un labo ? Il y a trop de monde sur la planète, ce serait une volonté des puissances. Une guerre avec un virus et pas avec des armes. » (Femme, 78ans)*]

- *"It comes from China: somebody made a mistake in the labs, he had to not speak and he is dead." (Female, 75 years).*

  [*« Ça vient de Chine : y a quelqu'un qui a fait une erreur dans les labos, il ne fallait pas qu'il parle et il est mort. » (Female, 75 ans)*]

Is the virus of natural origin? Or was it a creation, a result of a laboratory manipulation error? Is it a bacteriological weapon used by China to go to war against the Western powers? Is it a punitive reaction from the planet which wants to put an end to disrespectful human behavior and overpopulation?

In all these questions that have been raised by older adults, we try to understand the origin, the root cause; the actant who wishes and triggers the quest for the subject - here the subject-virus - because there is a problem to be solved: the problem identified by older adults is either ecological or political.Once again, in the production and genesis of the story, we observe a shift in the process of meaning. With the stabilized characterization of the invisible, unpredictable virus escaping older citizens, we move back up the chain trying to grasp the force that is at the origin of its existence, by tapping into universes of stable references. Thus, depending on the positioning of the discourse with regard to the determination of this force, we find ourselves faced with different types of narratives which implement sets of tensions which summon various actants: tensions; tensions between countries and world powers; tensions between planet and humankind.

Therefore, the narratives produced by older participants place the virus in a space of mysterious and sometimes paradoxical tensions: on the one hand, it is scary but on the other, we want to know. Fear and fascination intertwine in a classic process during the COVID-19 pandemic. On one hand, the virus is what we would like to be able to escape, and on the other hand, the virus arouses a form of desire and transforms, through the logic of verbalization, into a character endowed with intentionality and act of performing:

- *"He is clever, he goes fast, "he knows where he strikes", he is an "octopus which suffocates with its tentacles" (Female, 67 years); "clever, when he cannot achieve his goals, he mutates" (Female, 72 years); who "enters quietly, by breaking and entering" (Male, 78 years).*

[« *Il est malin, il va vite, « il sait où il frappe », il est une « pieuvre qui étouffe avec ses tentacules » (Femme, 67 ans) ;« malin, quand il ne peut pas arriver à ses fins, il mute. » (Femme, 72 ans) ; qui « entre sans faire de bruit, par effraction » (Homme, 78 ans)*].

Finally, the accounts of the older participants call forth imaginaries that are directly linked to the characteristics of the crisis: an invisible enemy that is spreading, circulating among the population, with a willingness of contagion. It is a contagious disease "vector of the dissolution of certain social forms, an agent of decomposition and re-composition"[42]. Thus, in the participants' storytelling, a profound dialectical process operates: between order and disorder, a dialectic which characterizes the imaginations of contagious disease. We note this dialectical process in particular, in the verbatims that are based on the planet-humankind tensions with the idea of a punitive sanction for humankind, as a necessary act of regulation that is going through a phase of chaos.

This dialectic that is specific to epidemics is manifested in the narratives by metaphorical networks and precisely by the "war metaphor". Indeed, the narrative logic of the crisis storytelling hinges on an intrigue and a conflict between different actants. These narratives translate, from a figurative point of view, into the production, in the discourseof semantic fields, that are directly related to martial rhetoric. Older adults are storytelling the COVID-19 crisis, as they would tell a story of a war. The influence of martial rhetoric widely used by the French mass media and political authorities is certainly not for nothing in this convocation of imaginary warriors[36].During the semi-structured research interviews, the researchers wanted to confront older participants to the image of the COVID-19 virus that mass media disseminate. Themass media image of a round virus surrounded by peaks generates fear and spreads the idea of dangerousness, in particular through the symbolism of a war:

- *"It makes you think of a missile, it's the bomb that will explode, like in the 7th company, it's scary" (Female, 67 years).*

  [« *ça fait penser à un missile, c'est la bombe qui va exploser, comme dans la 7ème compagnie, ça fait peur » (Femme, 67 ans)*]

- *"An underwater mine. When you touch it, it explodes "(Male, 78 years).*

  [« *Une mine sous-marine. Quand on la touche, ça explose. » (Homme, 78 years)*]

Storytelling Takes Place in Time and Space

The main results of the similarity analysis, presented above in Figure 1, indicate different clustersofheterogeneous narrative categories: freedom, protection, death, health, disease, public action, confinement, future life (economic, social and health). Specifically, the multivariate technique of factorial correspondence analysis, represented above in Table 1, demonstratedthree broad categories that will be analyzes on a basis of two specific axes: intrinsic (disease) and extrinsic (fear speech); personal consequences (illness, cases, risks, etc.) and social consequences (isolation, health policies, etc.).

The qualitative analysis of older participants'storytelling indicates a logic of an action, temporal aspects in the construction of the COVID-19 storytelling (cf., origin, causes, consequences for me and others), and symbolic aspects that are present in the narrative construction (i.e., martial, geopolitical, animal, historical, spiritual references as well as the scapegoat or the snake…) in order to give a base, and therefore a meaning to this invisible and intangible viral enemy. The narratives present also intrinsic and extrinsic aspects, a self-centered vision of the pandemic or rather a collective vision. Thus, the construction of the older adults' storytelling seems to be developed in line with spatial and temporal dimensions, which leads us to propose the following spatio-temporal mapping and therefore the typology of the COVID-19 discourse. Furthermore, the COVID-19 crisis storytelling is fed and emerges from the human beings' emotions. Ultimately, these different analyses highlight the temporal dimension and the individual versus collective aspects, represented in Figure 2.

In fact, as argued byLewin [43]every change presents three main stages: (1) unfreezing, (2) change process and (3) refreezing, and every social group or society evolves at different rates. But these past 20years demonstrated that the original 3-Stage Model has attracted major criticisms. The original model tends to ignoreorganizational power and politics, as such the model was essentially top-down and the original model operates mainly in a stable environment [44]. Although, rhythmsof adaptation are more variable for every single individual in times of crisis. These rhythmsdependrather on the seven phases of concerns [44] related to the sudden and unpredictable change generated by the COVID-19 pandemic. Therefore, temporality represents a main dimension that allows to analysethe COVID-19 crisis related change.

Foremost,first phases of concerns [45] are centred on the individual (i.e., personal security, questioning the seriousness of government decisions and seeking the COVID-19 related information), when this change takes place, the individual can open up to a more collective view of the change elicited by the COVID-19 pandemic.Additionally, the analysis of emotions that are activated by older participants' storytelling shows an individualpredominance that is marked by withdraws into oneself, into his or her fears and anxiety, that are afterwards projected towards the collective predominance, expressing primarily sadness and anger. Therefore, the storytelling dimension is also spatial, referring to the social space: self towards others (individual predominance versus collective predominance). The Figure 2, represented below, synthesizesthese two main storytelling dimensions with the "Spatio-Temporal Mapping of COVID-19 Narratives of Older Adults".
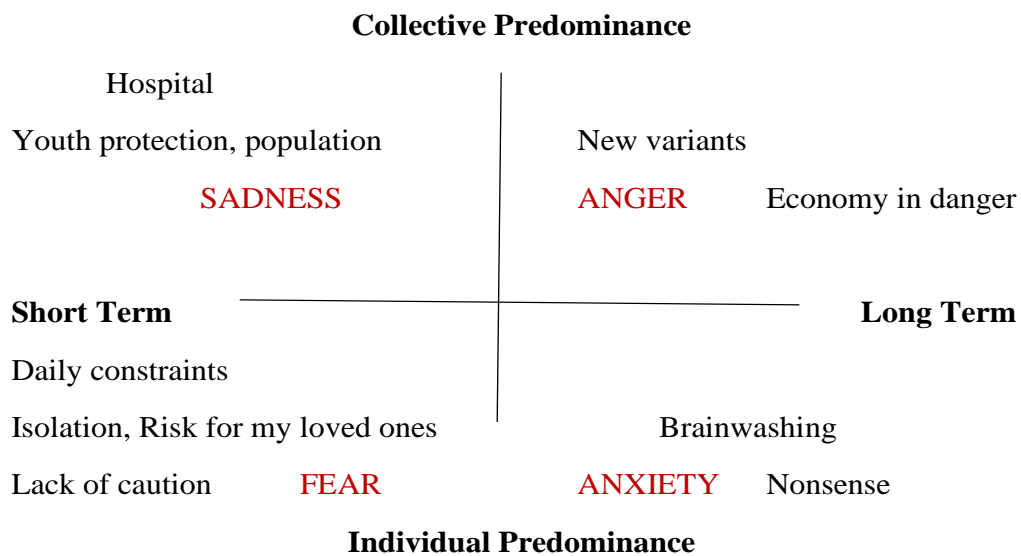
Collective Predominance

Hospital	
Youth protection, population	New variants
SADNESS	ANGER Economy in danger

Short Term ———————————|———————————— **Long Term**

Daily constraints

Isolation, Risk for my loved ones Brainwashing

Lack of caution FEAR ANXIETY Nonsense

Individual Predominance

Figure 2:Spatio-Temporal Mapping of COVID-19 Narratives of Older Adults

DISCUSSION& CONCLUSION

The storytelling represents auniversal activity of meaning-making that allows people to construct representations of the unprecedent situation, and therefore to cope with the collective upheaval that represents the COVID-19 outbreak. Indeed, human beings strive towards spontaneous construction of meaning because "our minds protest against chaos" [18]. Thus, the aim of the current research was to investigate the storytelling underpinning the construction of representations of the invisible COVID-19 virus, conveyed by written and oral narratives of older adults, in the ex-Limousin region (currently Nouvelle-Aquitaine) in France. The current research deployed different methods in order to offer a thorough investigation of older adults' storytelling. The main results demonstrate that olderadults 'storytelling is anchored within specific spatio-temporal dimensions, since every extreme situation occurs within a particular time and space [31, 46].

Furthermore, the multidimensional analysis of participants' written narratives demonstrated that older adults tend to apprehend the invisible virus in terms of serious sickness that has individual and collective consequences on people's lives. Also, the COVID-19 virus represents for older adults an object of duality that is situated between life and death. Indeed, the invisible virus SARS-CoV-2 that represents a major threat to people's life tends to activate thoughts of death and mortality, and related humans' defensesthat drive the need to construct a meaning, personal values, and the need for social relationships [47].Obviously, the invisible virus elicits negative emotional reactions, such as anxiety, sadness and stress that drive people's attitudes and behaviors during the COVID-19 crisis situation. Although, the older adults' storytelling is also embedded in a collective memory that is the reconstruction of the past within a specific social and temporal context [48]. Indeed, the "war metaphor" and martial rhetoric that emerged in the storytelling of older adults indicate a shared pool of knowledge that resonates in line with the COVID-19 mass media and political storytelling in France.

Therefore, the storytelling appears as a cultural form that people activatein order to grasp an object, a context, an event, the contours of which they seek to limit, to put into shape.Indeed,the narrativization of an event is a good lever for initiating the process of signification, for structuring, through the temporal and causal arrangements, a situation which at first glance escapes common understandings. Similarly, to the logic of journalism that aims to seize an object in order to

relate it, storytelling aims to structure the shapeless COVID-19 reality. Although, to limit and to put into shape is alsothe logic of any thought process, named"effort after meaning" [49], while confronted with an object that tends to escape the common cognitive schemes of understanding.The storytelling that should be apprehended as a journey of meaning, constructed through analysis, allows us to understand that beyond the abundant and dissociating narratives, whether they are conveyed by mass media or political communications, or a simple product of interpersonal conversations, there is a hidden coherenceand shared, deep and stable knowledge base.

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