## Letter to editor:

## Rumoromania, suggestion of a new term.

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Rumors have been coexistent phenomenon along major social and global crises since ancient times, enough old to have a dedicated Roman goddess called Ossa or Pheme. In contemporary history, rumors have made serious troubles during tremendous events such as world wars<sup>2-4</sup>, as well as epidemics likes Spanish and H1N1 Influenza.<sup>5,6</sup>

Adverse impact of rumors on defensive power of the United States and mentality of her nation led to establishment of *rumor clinic* during the second world war. The rumor clinic was in fact a group of professionals and volunteers under the leadership of Harvard University expert professors, Gordon Allport and Robert Knapp, that tried to detect rumors and fake news, and had a weekly column in Boston Herald, duplicated by many credible newspapers around the USA.<sup>7</sup>

Rumors are being made and spread during Covid-19 pandemics, by an accelerated rate and a vast air of distribution thanks to the invention of social media. These fake information not only may affect mental health of people, but also can interfere with diagnosis, efficient treatment and preventive strategies<sup>8</sup>, such as vaccination.<sup>9</sup> The huge burden of false information has made scientific resources like World Health Organization<sup>10</sup> and John Hopkins University<sup>11</sup> to set up pages dedicated for unveiling rumors about Covid-19. It has been also critical enough for the US Federal Emergency Management Agency to elucidate facts and rumors in its website.<sup>12</sup>

A rising attention to the psychology of rumor is evident in the scientific literature during and early after the Second World War. Almost all of the published essays about rumors during past 8 decades, are focused on the classification of rumors and psychological motivations underlying their spread.

In 1944, Knapp pointed to the emotional needs of the community which the rumor spreads in and analogize it to the needs of an individual who is fulfilled with daydreams and fantasies. He described that rumors express the underlying hopes, fears and hostilities of groups. He mentioned that some psychoanalysts had believed that all rumors, independent of their content, are expressive of underlying anxiety. He added that many superficial rumors exhibit wishes or aggressions motivated by fear from depth and can be considered as defense against anxiety. He also considered the projection of personal motives to others, as a probable mechanism of some kinds of rumor mongering behavior. Knapp had payed special attention to personal motivations behind rumors. Exhibition as one of the main factors is the motive of persons trying to convey the impression that they have access to information which are not accessible for ordinary people, possibly more prominent in rumor creation. Favoring the others by waking them up to a danger, sharing one's own anxiety, attaining emotional support for assurance and projection of conflicts such as fears, wishes and hostility are the other potential motivations for rumor spread, based on Knapp's opinion. Knapp claimed that in many cases, rumors are made just due to simple purpose of

entertainment; he considered that this group of rumors are motivated by the same motive of exhibitionism, and he also expressed the aggression as the motive behind a lot of rumors. <sup>13</sup>

Of course, these explanations -even if we considered that all of them are true- must be modified to fit the novel tools used to create and spread rumors. For example, the rumors that are created through video clips and pretend to report a situation or an event are more complicated than conventional rumors that consisted of simple phrases.

Allport and Postman in their well-known essay about rumor in 1945 summarized that: Whenever a stimulus field is of potential importance to an individual, but at the same time unclear, or susceptible of divergent interpretations, a subjective structuring process is started. Although the process is complex, its essential nature can be characterized as an effort to reduce the stimulus to a simple and meaningful structure that has adaptive significance for the individual in terms of his own interests and experience. <sup>14</sup>

Although they mentioned individuals' inner incentives as the main factors triggering rumors, they ignored that the motivations behind creation of fake news could be different and heterogenous. It seems that oversimplification of underlying mechanisms to combination of uncertainty and importance would not work for all of the rumors.

Chorus in his confrontational essay published in 1952, reminded the main factors presented by Allport and Postman as *importance* and *ambiguity*, and added a factor of *C* to the equation that he called *Rumor Law* which stands for *critical sense* as well as *moral criticism* or *consciences*. He believed that the conscience can inhibit telling of rumors in responsible individuals. This parameter seems to be more personal than importance and ambiguity which could be shared with other members of society by their nature.<sup>15</sup>

The factors mentioned in the article published by Rosnow in 1991, are all based on the famous article by Allport in 1945. He enumerated *general uncertainty, credibility* that indicates how much reliable is the transmitted rumor, *outcome relevant involvement* and *personal anxiety* to be involved in the psychology of rumor. However, and such as previous essays, almost all of the noted factors are about transmission of already created rumors, and personal anxiety -that could be considered as motivation of creating rumors-is also defined as a factor playing role in passing rumors from person to person.<sup>16</sup>

*Self enhancement* has been proposed as one of the psychological motivations in rumor spread by Bordia and Difonzo, alongside the *fact finding* and *relationship building*. It is the only one among them that can be considered as a motivation for rumor creation, in addition to its spread. <sup>17</sup>

Zhu and Liu in their article in 2017, expressed that the social, psychological, personal, and other internal and external environmental (including governmental) factors may lead to the transformation of *information makers* into the *rumor makers*. They subcategorized personal factors in the *event attention*, the *personal discernment*, and the *negative mentality*. They defined the *negative mentality* as *the influence of network rumor psychological causes*. The comprehensive factor analyses by the investigators showed that the negative mentality is the main motivation in promotion of disinformation behavior. Amazingly this report claimed that the higher educational level is related with the higher possibility of rumor behavior, the phenomenon that seems to be evident in some of the rumors around the recent pandemic. <sup>18</sup>

More recently, during the Covid-19 pandemic, the Center for Countering Digital Hate founded in December 2017 has reported the results of tracking about 812000 disinformation published in Facebook and Tweeter between 1<sup>st</sup> February and march 16<sup>th</sup> 2021, and reported that, 65% of them have been published and promoted by 12 guys, who they call them Disinformation Dozen. They have discovered that many of this dozen have financial motivation for spreading disinformation. <sup>19, 20</sup>

In another report, professor David G. Rand in Media Lab at Massachusetts Institute of Technology, has calculated that about 50% of users who spread disinformation in social media are unaware of the content of their posts. Approximately one third of five thousand participants of their assessment claimed that they thought that the posted content was true. And about 16% of users expressed they had shared disinformation while knowing that they were not true. <sup>21</sup>

Conclusively, the personal motives for rumor creation (not predisposing factors such as ambiguity or anxiety) include self enhancement, exhibition, hostility against persons or systems, aggression and even simply entertainment. Hence some personality traits or disorders that are related with these incentives may participate in the rumorogenesis. By the way, because almost all of the rumors about major crises are made by unknown inventors, some personality traits like Histrionic Personality Disorder are not suitable candidates, due to their thirst to receive attention. It seems that the Passive-Aggressive Personality Disorder as described in DSM-IV fits the most with the mental features that we expect to find in rumor makers, and might be a predisposing background in the hostile group of rumor makers<sup>22</sup>, by the estimated prevalence of 1.7%,, that definitely may vary wildly in different societies and cultures.

On the other hand, to the limited number of rumor makers who follow their financial purposes, we must add the individuals that follow some specific political goals by express hostility and spread anger against a person or organization in charge, a party, government or political regime, and display they are betrayer or incapable. We couldn't find any definite estimation of number of the rumor makers during the late pandemic and previous crises. If we rely on the estimation of 16% of rumor spreaders who confessed that they could content their conscience to share disinformation, as the people who may exhibit rumor behavior without feeling guilty or ashamed, there would be a gap between this number, and very limited number of opportunist rumor makers mentioned above, that we are to focus flashbulb on. Considering the list of the motivations pointed in the studies, this gap is filled with the group of rumor makers that probably express this behavior to experience pleasure due to satisfying the desire of power or self enhancement, even anonymously and by receiving the reflection of their rumors, responding their compulsions, or simply being entertained.

Mania is originated from ancient Greek  $\mu\alpha\nu i\alpha$  with the meaning of madness, and in contemporary language is used to describe *excitement manifested by mental and physical hyperactivity, or excessive or unreasonable enthusiasm*. <sup>24,25</sup> As a suffix in medical terminology, it is defined as *obsessive preoccupation with something, abnormal love for or morbid impulse toward something, or exaggerated feeling for compulsion toward obsession with something*. <sup>26-28</sup> According to the context of pleasure as the axis in common in the motivations explained for the rumor makers of the gap mentioned above, we suggest the combination of *rumor* and *mania*, *Rumoromania*, addressing these individuals.

This new term and related concept, if verified by experts in the field of psychology, in addition to representation of a revision in the categorization of the motives behind rumor creation, may also would be of benefit to be recognized, when it is necessary to track the resources of rumors during social crises.

I do appreciate the invaluable opinions of the audiences of your prestigious journal, in confirmation or confrontation.

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