The influence of culture on the expression of emotions in online social networks

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Abstract: Seeking to understand the influence of culture on the expression of emotions in online social networks, we analyzed four Facebook groups – two from Quebec, Canada and two from Colombia – created following unexpected deaths. Comparison of the messages posted in these groups reveals a stronger tendency to maintain a virtual relationship with the deceased by Canadians than by Colombians. Among the former, the deceased is more often asked to and thanked for watching over the living, and testimonies of love addressed to the deceased are more numerous than among the latter. Among the latter, the strength of the links maintained with the deceased justifying the present pain and evocation of the mourners' Catholic beliefs are relatively more frequent. Finally, while the Canadian Quebecers' messages would presumably be written in French and those of Colombians in Spanish, it is interesting to observe a certain presence of English to express feelings of loss and love in the four groups, as well as a certain affinity between North American virtual bereavement practices and those seemingly more characteristic of women, the main contributors in all four groups.

Keywords: bereavement, culture, death, emotion, emoticon, online social network

De l'influence de la culture sur l'expression des émotions dans les réseaux sociaux numériques

Résumé: Cherchant à saisir l'influence de la culture sur l'expression de ses émotions dans les réseaux sociaux numériques, nous avons analysé quatre groupes Facebook – deux canadiens-québécois et deux colombiens- créés au lendemain de décès inattendus. La comparaison des messages postés dans ces groupes met en relief une plus forte tendance au maintien d'une relation virtuelle avec le défunt de la part des canadiens que des colombiens. En effet, dans les premiers, le défunt est davantage sollicité et remercié pour veiller sur les vivants, et les témoignages d'amour qui lui sont adressés sont plus nombreux que dans les seconds, où la force des liens entretenus avec le défunt justifiant la douleur actuelle, et l'évocation de ses croyances catholiques sont relativement plus fréquentes. Finalement, alors que les messages canadiens-québécois seraient supposés être écrits en français et ceux colombiens en espagnol, il est intéressant d'observer une certaine présence de l'anglais pour l'expression des sentiments de manque et d'amour dans les quatre groupes, ainsi

qu'une sorte d'affinité entre les pratiques virtuelles de deuil nord-américaine et celles semblant plus caractéristiques des femmes, principales contributrices dans les différents groupes.

Mots-clés: culture, deuil, émotion, émoticône, mort, réseau socionumérique

Introduction

It is currently estimated¹ that 42% of the world's inhabitants are active on the Internet. Part of this activity takes place in online social networks (OSNs): with more than two billion active accounts, the OSN penetration rate in the population is 29% and growing (12% increase in 2015), in particular via the proliferation of smartphones and tablets (23% penetration and increase of social sites followed on portable devices in 2015). This phenomenon shows the evolution of our means of access to information and communication: connecting to the Internet to find information is now almost a reflex, sharing resources is easy and sharing personal data even seems to be a requirement, as the architecture of social sites encourages users to make public their pictures, opinions and tastes. The appeal of online social networks therefore seems to be linked to this mix between information, reflection and emotion as illustrated by the virtual rallies that occur after significant events such as the earthquake in Haiti or the Charlie Hebdo attacks. As Pène (2011, p.106) writes "Tributes, collective thinking across distances, the ceremony of globalization unites around a strong emotion a variety of humans scattered far and wide. But very quickly this rallying around a cause or event sets up an information feed." [translation] In effect, OSNs are places to share a potentially mobilizing widespread emotion (disaster relief organizations, displays of solidarity and unity, etc.).

While in the above-mentioned case it is the broadcasting of a major event in the media that results in a sharing of emotions or even action in OSNs where specific groups are formed for the occasion, in people's day-to-day activities, life events are sources of emotions communicated online. Revealing what seems personal, sharing one's feelings in the semi-public space of one's "friends 2.0," who are often merely contacts (Granjon, 2011), may seem paradoxical and difficult to understand, as emotions are thought of as belonging to the private sphere. However, it does appear to make sense when looked at from an anthropological or sociological perspective. In fact, as far back as the early twentieth century, Durkheim revealed that feelings and emotions depend on social conditions and Mauss paved the way for an anthropology of emotions by showing that they are manifested in conformity with social codes and thus participate in social symbolism (Le Breton, 2010). The understanding of any expression of an emotion therefore requires that its context be taken into consideration. Similarly, Halbwachs maintains that emotions are not innate individual characteristics but the result of a collective construction and in this sense, derive

¹[http://fr.slideshare.net/wearesocialsg/digital-social-mobile-in-2015/6-We_Are_Social_wearesocialsg_6GLOBAL]

from socialization (Halbwachs & Granger, 2014, p.48).

Accordingly, to what extent does culture influence the sharing of emotions in online social networks?

To consider this question we propose a brief literature review of the growing number of studies on the expression of bereavement and emotions in OSNs. We will show that cultural differences are rarely taken into account in these studies, even though they are of a priori importance. We will then present the methodology and the results of the analysis of Canadian and Colombian bereavement groups on Facebook. Finally, to broaden the discussion, we will discuss key elements through the lens of gender differences.

1. Emotions and bereavement within cultures

Emotions are sometimes considered universal, since psychological research has tended to study them as physical processes. Hence, the cultural diversity of emotions does not always appear to be well understood. Obviously, emotions may vary depending on the individual but, as mentioned in the introduction, sociologists have pointed to the importance of social structures, and of the verbal and technological context in the configuration of these structures: "Culture provides the framework for the labelling, classification, categorization and interpretation of emotions, and social norms regulate and form their expression and even their experience." (Illouz, Gilon & Shachak, 2014, p. 221). Increasingly, researchers from a variety of disciplines who focus on emotions are in agreement on this cultural influence (Crapanzano, 1994; Tisseron, 2005). Similarly, emotionally intense life events are themselves culturally defined. This is the case with death, for example.

Philosophers and anthropologists present the way in which death is treated, the funeral practices and the memory preserved of the deceased, as a human characteristic, a mark of culture (Marin, 2009). It is always a matter of separating the dead from the living while providing another place for the deceased (Baudry, 2010). Thus, according to Dastur (1998, p. 15) "Mourning, taken in its broad sense, is the origin of culture itself. For there to be culture, there must be mourning practices, that is to say behaviours that permit humans to live with the dead and to interiorize their memory, thereby maintaining their presence. Every culture would therefore be [...] a culture of mourning." Preserving the memory of the dead is thus observed in all cultures, and archives (writings, photos, films, blogs, etc.) contribute to fighting "against the disappearance by the implicit distancing" (Baudry, 2001, p. 40) [translation]. However, funeral rites, beliefs and links with the deceased vary from culture to culture.

Having gradually been integrated into the daily practices of many Internet users, communication in OSNs is utilized to help redefine a life that must continue in the absence of a person still present in thought: "By communicating with others who knew the deceased and in sharing this knowledge via online social networks, a bio-

graphy can be created that both allows survivors to move on and memorializes each survivor's ties and importance to the deceased." (Carroll & Landry, 2010, p. 344) Research shows that beyond the announcement of the death, online writing functions as a mnemonic, a prayer and a diary for the bereaved (Myles, 2012). Thus, Getty *et al.* (2011, p. 1000) note: "Our analysis of the language of Facebook posts indicates that mourners use memorialized profiles as a way to maintain a continuing bond with the deceased, as well as a way to accomplish specific front stage bereavement communication, such as sharing memories, expressing sorrow and providing social support."

Whether as a cathexis on the deceased's personal home page or on that of a group created following a person's death, messages published in OSNs are mostly simple testimonies of mourners' affliction in accordance with socially established behaviours (Le Breton, 2010). Sometimes, the past relationship with the deceased is exhibited as a sort of one-upmanship over whom the deceased loved most (McEwen & Scheaffer, 2013; Carroll & Landry, 2010). Nevertheless, most of the time, messages are addressed not to other members of the group but to the deceased, such that "post-mortem social networking" is considered a way to maintain a link beyond death (Brubaker, Kivran, Taber & Hayes, 2012; Brubaker, Hayes & Dourish, 2013). This dialogue with the deceased, indicative of the bereavement work underway (Papi, upcoming), is a reminder of the social and cultural nature of death. Studies on the uses of technologies during bereavement have coined the term "thanatechnology" pointing to the role of technologies in the understanding of pain and loss (Frost, 2014). At present, research in the field is primarily in the English language and mainly American. Yet the relationship to death, like emotions, being culturally determined, generalization of the findings of these studies is problematic.

As a cultural element, language in itself already plays a role in the feeling and expression of emotions. Hence, Galati and Sini (2000) show that the grouping of primary emotions (fear, anger, joy, sadness, acceptance, disgust, anticipation, surprise) into eight linguistic categories (drawing on works carried out by Russell in the 1980s) that are supposed to describe the human experience are in fact specific to the English language; they can be difficult to understand as universals due to the special relationship between language and the experience of emotions. Studies extended to neo-Latin languages, notably French and Italian, "have revealed some differences and some particularities between those languages and English regarding the semantic relationships between emotional terms and the number of semantic radicals identified. It appears that there are fewer semantic radicals in the neo-Latin languages than were identified for English and that they refer to four semantic fields which can be reduced to four primary emotions: anger, fear, joy and sadness." (Galati & Sini, 2000, p.77) [translation]

To what extent do online bereavement practices reveal cultural differences in the expression of emotions? While North American culture, largely disseminated through films, is also the basis of the main OSNs, it would be instructive to see if the socio-digital bereavement practices of other cultures are similar. Assuming that

social practices of bereavement and the related emotions are steeped in culture, we put forward the hypothesis that cultural differences influence the emotions felt and their expression via the use of OSNs.

2. Survey methodology

While the studies that we were able to research² all deal with messages posted on personal home pages or, more rarely, in bereavement groups of people from the same culture, typically North American and English-speaking, we propose pursuing the exploration of bereavement in OSNs by adopting a comparative approach. To do this, we analyzed four bereavement groups on Facebook that, with more than 1.5 billion active users, is the most visited social platform. The deceased and the main contributors of two of the groups are Canadian (specifically, Quebecers) and those of the other two groups are Colombian. Although many studies focus on deaths that affect the general public, such as deaths following an earthquake or the death of a celebrity (Courbet & Fourquet-Courbet, 2012), we chose groups created following the death of non-celebrities. However, these groups do not necessarily contain an abundance of communications. In order to test our hypothesis, we therefore chose as criteria to use only groups created following the sudden death of young people (between 20 and 40 years old), having at least 60 messages and in existence for at least 3 years.

Table 1. Characteristics of the groups studied

Group number	G1	G2	G3	G4
Culture	Colombian	Canadian	Canadian	Colombian
Year of creation	2008	2009	2010	2011
Number of messages	177	277	208	80

First, several messages were read to establish an analytical grid. As the categories of anger, fear, joy and sadness mentioned by Galati and Sini (2000), did not seem sufficient to cover the content of the messages, we expanded the field of emotions to that of feelings, notably in order to be able to take into account the testimonies of love. The 742 messages on which our research focused were then analyzed using the same grid in order to do a flat sorting, cross tabulations and Chi-square tests on SPSS software. Only the cultural differences deemed significant based on the Chi-square test will be presented as such. The percentages presented always correspond to a number of messages relative to that of a particular group or to all the groups.

² Thanks to the Teluq's research funds (FIR1) and to the students who helped analyze the messages.

3. Cultural similarities and differences in the expression of emotions online

The messages of the two Colombian groups are almost exclusively in Spanish (3.5% of the messages are in English), French is predominant in one Canadian group (3.6% of the messages contain English in G2), whereas for group G3, half of the messages are completely or partially in English. Incidentally, while the two Colombian groups yield quite similar results, those of the two Quebec groups highlight certain particularities potentially linked to a greater influence of the Englishlanguage culture on one of the groups, as we shall see.

In all four groups, information sharing and expressions of support, in other words, interactions between contributors in the same group, are rare. As noted in the literature (Brubaker *et al.*, 2012, 2013), it is evident that communication between members of the same group is minimal and that it is more about revealing one's memories and feelings, maintaining a link with the deceased in this virtual space, than about communicating with the other living members. Thus, 10.9% of the messages are tributes to the deceased. In all the groups, it is chiefly the deceased's human qualities that are featured (8.3% of the messages) such that cultural differences seem minimal. It is of note, however, that presentation of the deceased's accomplishments appears only in G3 (1.9% of this group's messages), and that expression of the deceased's physical beauty is also more important in G3 (3.4% of this group's messages, compared to none in G1,0.4% in G2 and 1.3% in G4). Similarly, expression of missing the deceased is not significantly different culturally but varies considerably between groups: present in 26.9% of the 742 messages, it ranges from 15.3% in G1 messages to 39.4% in those of G3.

A closer examination of the emotions expressed reveals, first, that emoticons are seldom used³ and are rarer in the Colombian groups than in the Canadian groups and second, that fear and anger are almost never expressed and exhibit no difference between the groups. However, a significant cultural difference is evident in the action of expressing one's affection. Hence, "kisses" tend to be absent from Colombian groups while they are very present in the Quebec groups and especially in the group more influenced by the English-language tradition where half of the messages include this type of element, mainly in the form "xxx" or "xoxo." Generally speaking, the expression of friendship or love is less present in the Colombian groups (15% in G4 and 19.2% in G1) than in the Canadian groups (26.3% in G2 and 40.4% in G3). Sadness is seldom expressed in all groups, and appears statistically significantly more in the Colombian groups (5.1% in G1 and 6.3% in G4) than in the Quebec groups (3.2% in G2 and 4.8% in G3); the same is true for pain, overall seldom expressed but more amongst the Colombians (8.5% in G1 and 6.3% in G4) than

³ Thus, only 2% of the Colombian messages contain a smiley compared to 13% of messages in the Canadian groups, idem for the love emoticons present in 3% of the Colombian messages versus 14% of the Canadian (more frequent in G3 than in G2 where more than 8% of messages contain even more than 2 of these emoticons). Sadness or crying emoticons are seldom used in all the groups (present in less than 5% of the 743 messages) with no specific difference between cultures.

amongst the Quebec groups (3.2% in G2 and 4.8% in G3). In the same vein, we observed that while emoticons are seldom used, and that those manifesting sadness are rare (<5% of messages) in all the groups, those expressing joy or love are significantly more present in the Quebec groups, especially in group G3. Clicking on "Like" is also more frequent in G3 (95.7% of messages have at least one "Like" and often several) than in the other groups (68.7% in G4, 52.2% in G2 and 47.5% in G1). It is interesting to note that spelling and grammar are typically more meticulous in the Colombian messages than in the Canadian messages and that the former play more with the use of capitals, punctuation marks and the length of words ("Mi Amooooooooorrrr") to emphasize the strength of their emotions.

While in all the groups more than half of the messages are addressed to the deceased, group G3 exhibited the strongest tendency in this (81.7% of messages addressed to the deceased). In addition, relationships with the deceased are culturally differentiated. Thus, forms of one-upmanship-for example, the writer saying he/she was closer to the deceased, thereby implying greater personal suffering—are identified more often in the Colombian groups (40% in G4 and 67.6% in G1), where they sometimes (in 5.1% to 10% of the messages) amount to a sort of challenge or provocation addressed to other members of the group, than in the Quebec groups (24.1% in G2 and 1.4% in G3) where only one message is provocative. Finally, 19.4% of the Canadian groups' messages involve asking the deceased to watch over them or others (and these requests are more frequent in G3 than in G2), while only 2.3% of the Colombian groups' messages include such requests. What is more, 3.6% of the Canadian groups' messages thank the deceased for watching over them or others, which is not the case in any Colombian message. However, apart from these specific thanks, the expression of gratitude is significantly more characteristic of the Colombian groups, where they occur in 10.5% of the messages (or 27 messages), than of the Canadian groups where they appear in just 1.8% of the messages (or 9 messages). The presence of life reflections is also more frequent in the Colombian groups (4.5% and 5%) than in the Canadian groups (1.9% and 1.1%) while reflection on life after death is observed only in the Canadian groups but remains minimal (3 messages in total, or 1% and 0.4%).

4. Discussion and conclusion: Differences of culture or gender?

The elements presented above highlight interesting cultural differences not only between the Canadian and Colombian groups but also between the two Canadian groups. The characteristics of the Canadian group with the larger English-speaking contribution are more distinct from those of the Colombian groups than are those of the more French-speaking Canadian group. These distinctions might correlate with language: Spanish and French both being Latin languages, the messages written in these languages would differ from those written in English according to the works of Galati and Sini (2000) mentioned above. However, language is not the only cultural element. Religion, for example, also influences conceptions of life after death. This certainly explains G3's more frequent requests to be watched over and the view that

the deceased manifests in unexpected events or dreams, this group being more influenced by the English-language (and originally protestant) culture, and marked by a sort of religious syncretism. In the three other groups, the Catholic religion is more present, particularly in G1 where 38.4% of messages contain elements that reveal religious beliefs.

Lastly, it is difficult to determine if certain parameters are more influenced by culture or by gender. First it must be noted that in each of the four groups, the large majority of messages are written by women: they author 83.5% of the messages in G2, 82.1% in G3, 80% in G4 and 62.1% in G1. That said, many of the behaviours seem differentiable by gender. The expression of gratitude, for example, seems more feminine: it is found in 5.9% of the women's messages compared to 1.4% of the men's messages. Similarly, although the use of emoticons is minimal overall, it is significantly more present in the women's messages. In effect, 10.6% of the messages written by women contain a smiley compared to 2% of those written by men; as well, 13.7% of the messages written by women contain a love emoticon, while none of the messages written by men do so. The same is true for the sadness emoticon present in 5.9% of the women's messages versus 1.4% of the men's messages. Apart from emoticons, the differences in the expression of signs of affection (kiss, xoxo, etc.) identifiable between the groups also seem influenced by gender, these testimonials being identified in 35.5% of the messages written by women compared to 4.8% of those written by men; further, the writing of phrases such as "I love you" in the three languages is significantly more feminine: present in 31.3% of the women's messages versus 12.2% of the men's messages. The expression of loss or of being troubled by the disappearance of the loved one is, in the same way, more in evidence among the women: 29% of their messages compared to 20% of the men's messages, in all three languages, contain phrases such as "I miss you." Gender more than culture would therefore explain this expression of loss as is highlighted by the fact that, as mentioned in the previous section, the expression of loss is lowest in G1, the group where the portion of messages written by women is lower than in the other groups. It is interesting to observe that the expression of feelings of affection and of loss frequently appear together in phrases written in the English language, even in messages otherwise written in Spanish and French.

Ultimately, a certain proximity thus appears between the North American and feminine tendencies, inasmuch as the display of affection or love in different forms, as well as requests and thanks addressed to the deceased, are more frequent in the Canadian than in the Colombian groups and more frequent in the messages posted by women than in those posted by men in all four groups. This seems to indicate, first, that women more than men tend to keep up a visible dialogue with the deceased (perhaps the men have the same interior dialogue without publishing it), and, second, that this dialogue is facilitated by the development of a certain religious syncretism. In fact, while some of the messages in all the groups mention angels and Paradise, the larger influence of Catholicism in Colombia seems to explain that such solicitations, when there are any, which is much rarer, are addressed more to God than to the deceased. The group most influenced by the English-language culture

presents some interesting and unique features: for one thing, this group's online dialogue with the deceased is greater, which may be a legacy of the influence of Protestantism that invites to read the Bible and address God directly without the necessity of a priest's interpretation, and which recalls the research on coming to terms with the deceased person's change of status in accordance with the concept of "extimacy" (Klein, 2010). For another, read notifications ("Like") and emoticons are used more in this group than in the others, which could be interpreted in two ways: either as a better appropriation of the digital device that is something between a diary and a communication site (Deseilligny, 2012), or as a better compatibility of OSNs in North American practices which may seemed logical for a device designed in the United States (Getty et al., 2011). The fact the OSNs are quite open spaces and that, contrary to watching movies, they require an active participation, may limit their influence on people but they also remain spaces where videos and practices are spread. Given this, we may wonder wether the use of OSNs and the influence of the English-language culture will gradually standardize beliefs and practices or wether these devices are adaptable enough to cultural differences?

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