

Language of Disaster and Society:

The Socio-Emotional Functions of Language after Natural Disaster

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Abstract— Natural disasters are frequently inevitable. They destroy many social structures, infrastructure, environment and lives. Moreover, disasters evoke mixed feelings of sadness, anxiety, anger, loss, fear, even trauma. These emotions may impede community capacities to recover from disaster adversity. After disasters, impacted societies should survive, be more resilient, rebuild/redevelop and learn to anticipate the potential recurrent disasters. Within this emergency situation, language and communication play fundamental roles in facilitating social interaction post disaster. Language mediates recovery process, becomes tools for representing human-society experience and is embedded in social activities. This study aims to explore social and emotional functions of language infused in local people social interaction and their environment after Palu natural disasters in 2018. The data are collected through direct observation, images and interviews with Palu local people. The data show that after Palu disasters, language has socio-emotional functions which potentially contribute to community resilience, recovery and emotional strengthening process. Language which is infused and embedded within local people social interaction and social activities play social purposes, such as social sharing, caring, evoking empathy and sympathy, social warning and generating community awareness on potential danger of recurrent disasters. Moreover, language also serves emotional functioning, including expressing anger, sadness, panic, trauma, reducing social anxiety and generating social strength. The study indicates that language reflects human experiences. It grows within different social context and serves different social needs. Language also has adaptive capacity to adjust to various and distinctive social characters, necessity and situation. Language in disaster area is not only reflecting social emotion and situations, but also potentially social emotion and behaviour.

Keywords— *language of disaster; social functions; emotional functions; social interaction; Palu disasters*

I. INTRODUCTION

Language is part of human and social lives. It emerges as people within society interact, express their feeling and thinking and communicating their experiences and needs. Various society activities and actions are enabled by language, as system to exchange messages. This indicates that language infuses into societies' regular, everyday life and becomes integral to human-society. However, language is not only used as vehicles of everyday communication to sustain and support daily social interaction, but also within certain circumstance, including disasters.

Natural disasters are frequently unavoidable. Yet, they take and destroy many social aspects: established social activities, properties, public infrastructure, houses and buildings, social structure, even lives. Some aspects can be re-built and operate in similar ways as before disasters, but many other aspects must be renewed even replaced with entire new infrastructure and social structure, for instance the diminished and destroyed schools, roads, stores and jobs, workers, teachers or family loss. This condition generates painful emotional experiences: anxiety, anger, depression, loss, despair, unmotivated even traumatic. As the reflection of human and society experiences, language in this environment serves different functions. Language tends to be adaptive to its' social environment. This indicates that language emerged after natural disaster may distinctive from everyday language. This is because language after disasters reflects unusual social situation. Language tends to play function as media to provide information, emotional comfort, support and motivation to heal and recover themselves.

Many studies are focused on disaster management, how to prepare society for disaster and recover from adversity, which tend to be more up down or from authority to society. Very few studies are concentrated on exploring local people communication, especially its language and society post disasters. This study aims to examine language functions after natural disaster in Palu in 2018. It is focused on social and emotional functions and language which is produced by Palu local people and appears in their

social environment. Thus, we emphasized on communication which is developed by local people within their natural local environment. Language of disaster in this context refers to any verbal and nonverbal forms which are used to exchange information, emotion and thinking through the process communication, particularly after natural disasters in Palu in 2018. It includes verbal and nonverbal messages and process of transmitting and exchanging information.

II. LITERATURE REVIEW

A. *Communication, Media and Disaster Selecting*

After great disasters, there are plenty of works and processes should be done to recover and re-build the impacted society. The success of recovery programs after disasters can determine the future of the impacted community and chance to solve existing long-term problems (Johnson & Olshansky, 2016). The works include a wide range of sectors, including redesigning and rebuilding infrastructure, improving quality of construction, relocating new lands and its' uses, re-energize the economic sector and enhance governance (Johnson & Olshansky, 2016). Moreover, community mental and competencies to face disasters are also managed and improved (Shih et al., 2018; Tarhan, Aydin, & Tecim, 2016).

This recovery process is grounded by language and communication roles since language and communication connect human and society relationship in every actions and behaviours. Communication process and communication systems which are reliable and accessible are substantial component to reach community resilience after disasters (East Asia Summit & Earthquake Risk Reduction Centre, 2014). Communication which occurs during and post disasters contribute to community resilient because it bridges impacted people, among families and connects outside environment, the external helpers, responders, outside communities with the affected society (East Asia Summit & Earthquake Risk Reduction Centre, 2014). Communication during and after disasters are different from everyday situation since during crisis situation information should be rapidly and accurately distributed (SEMA's Educational Series, 2003).

Disaster communication or communication during crisis situation plays vital roles. Public communication before disaster can reduce the impacts of disasters by acknowledging community about the potential types of destruction impacted by disasters and what they can do (Robinson, 2017, p. 2). To be effective, this pre-disaster communication should use appropriate media, be clear, be connected, appealing and practical, motivate people to talk and be developed by involving and collaborating with stakeholders and various agents: media, government, academics, private and civic organizations (Robinson, 2017, p. 5). Moreover, crisis communication has several characteristics: rapid and correct, accurate, honest and emphatic, generating actions and respect (Reynolds et al., 2014, p. 2). During disaster, communication is focused on rapid and accurate communication between disaster areas and rescue and help provider bases, selection and use of alternative media replacing technology media as they frequently cannot be operated (Juliana, Amin, & Idrose, 2017, p. 891). Effective communication during disaster may accelerate relief and recovery process and save more lives and properties (Bharosa & Jansen, cited in Juliana et al., 2017, p. 891). Communication during crisis involves three main dimensions: communication during actual crisis, government's management and images of crisis (SEMA's Educational Series, 2003, p. 10). Communication post disasters are directed to increase the impacted societies' actions for recovery process and generate disaster awareness. At resolution phase of crisis and risk, communication is directed to explain recovery efforts, disaster causes, responsibility and increase society awareness on potential risks, promote actions to anticipate risks and preparedness, prepare public policy and society support (Reynolds et al., 2014, p. 13). Moreover, the increased interpersonal communication skills among society and among disaster agents are expected to reduce disaster psychological impacts and increase people alertness on disasters (Suhaimi, Marzuki, & Mustaffa, 2014, p. 113).

The other aspect of media on which language and communication is expressed. Many studies discuss use of technology in disaster communication. Technology media can be aided to analyze disaster potentials and risks, prevention and mitigation process (East Asia Summit & Earthquake Risk Reduction Centre, 2014; James, 2007; Lin, Chu, Ku, & Liu, 2014; Stal, 2013). Media and technologies can transmit early warning of disaster for public safety (Browne et al., 2019, p. 6). However, during disasters mostly, technology media cannot be operated (Juliana et al., 2017). Thus, it is significant to explore alternative communication media during disasters (Juliana et al., 2017).

Many studies on disaster communication are directed explore one-way communication and top down communication, especially for disseminating disaster mitigating policy and planning (Government of the Republic of Trinidad and Tobago, 2011; Jha, Barenstein, Phelps, Pittet, & Sena, 2010; SEMA's Educational Series, 2003). However, these studies should be completed by researching how local people develop their own communication and what the potential functions of language and communication that grows within their own natural environment. As mentioned by Brown, Fauver, Geppi, Haynes and Hildderbrand (2016, p. 4), it is significant It is significant to learn social, behavioural and economic aspects of the local people since effective messaging should be relevant to those factors to help the society be more resilient communities.

B. *Language and Society*

Language is part of human and society lives. It is created and developed by society. As the property of society, language plays various society-related roles. Firstly, Language can be media which relates human and society. Naturally, language reflects human mind and directs human character of thinking (Chomsky, n.d., p. 1). Moreover, language transmits and exchanges those mind

content or thinking and cultural knowledge (Krauss & Chiu, 1998, p. 2). Language exists in any phenomena which relate individuals and society: change of attitude, social perception, identity, social interaction, bias of intergroup, attribution (Krauss & Chiu, 1998, p. 2). Thus, language is resource and a bridge for social interaction. Secondly, language tells and communicates society activities. Language is one of several media used by society to act. Language enables humans to “do” their social activities and the world becomes the context and background (Maynard & Peräkylä, 2003, p. 233). Thirdly, language also mirrors social experience. As mentioned by Maynard & Peräkylä (2003, p. 235), language and experience are mutually affected each other. Language is a social tool, as through language human can interact and participate in their social worlds (Borghi, Barca, Binkofski, Pezzulo, & Tummolini, 2018). Moreover, the functional linguistic views language as fundamentally an instrument since language serves its function to structure our experience and form model of cultural experience (Thompson & Kuhlen, 2014, p. 155). Fourthly, language can affect social cognition. Dove (2019, p. 1) mentions that social cognition can be influenced by language through three ways: individual’s emotion and perception can affect others’ state of emotion and thinking, word-to-word associations can contribute to theory of mind development and particular semantic competences can influence theory of mind skills. Fifthly, language mirrors society’s identity. Different society has different variety of language indicating community identity (Wardhaugh, 2006).

Language is closely related to communication. Through language, people exchange messages using communication channels (Maynard & Peräkylä, 2003, p. 233). Language is integral part of communication. As mentioned by MTD Training (MTD Training, 2010, pp. 11–12), communication is comprised of source, message, encoding, channel, decoding, receiver, feedback and context.

C. Natural Disasters at Palu

In spite of its’ abundant natural resources, Palu is one of several areas in Indonesia which has high natural risk. The strengthening Indonesian Resilience: Reducing Risk from Disasters (StIRRD) program categories several regions (cities and districts) as high risk areas: Palu, Donggala, Morowali, Padang, Agam, Bengkulu, Seluma, Mataram and Sumbawa (Glassey & Satyarno, 2016). Rusyi, Effendi and Rahmawati (2017) classify Palu as vulnerable zone since it is traversed by Palu Koro and other small faults which can trigger high risks because of potential recurrent earthquake. On September 28, 2018 earthquake with 7.4 magnitude hits Palu and Donggala and also affects the surrounding areas. Moreover, the earthquake triggers other natural disasters: tsunami and liquefaction (Acaps, 2017). It is predicted as the impacts of active motion of Palu-Koro, Sadang and Trench faults (Sulawesi, Soehami, & Muslim, 2016).



Fig. 1. Destructed houses at Balaroa as impacted by liquefaction following earthquake

Approximately, 660.000 people are affected, 2549 injured, 70821 displaced population, 1407 fatalities and 21 health facilities impacted (World Health Organization, 2018, p. 1). The disasters affect many aspects of Palu, Donggala and impacted communities’ lives, including health, houses/shelters, clean water, food, education, security/protection, communication (Acaps, 2017).

III. METHOD

The study aims to explore social and emotional functions of language after natural disasters at Palu in 2018. It also involves communication factor and is focused on local people language and communication phenomena in natural environment. The study adopts qualitative research method. Phenomenology is adopted as the epistemological stance of the study.

The data are collected through several sources:

1. Direct observation
This is conducted one week after disasters until one month after the end of the official emergency period. The observed areas vary ranging from traditional market, roads, impacted areas at Balaroa and Talise beach.
2. Interviews
The direct observation is also supported by interviews with two local people at Palu. Both of the participants were at Palu when the disasters are occurred and save from disasters.
3. Pictures
Several pictures are taken at the impacted areas and several strategic areas to support the main data (direct observation).
4. Talk with local people
It covers spontaneous talk at natural setting which frequently unpredictable when it will happens.

The gathered data are analyzed by using thematic analysis approach. All the collected data are read, interpreted, analyzed and connected/linked to theories/concepts in the areas of language, communication, society and social psychology

IV. RESULT AND DISCUSSION

The immediate condition after earthquake, tsunami and liquefaction disasters at Palu in 2018 is still chaotic. Many people lost their houses and must live in temporary tents and gradually move into temporary houses/shelters which are provided by local government and international agencies, many roads and public facilities: schools, hospitals, offices are still rebuilt, many local people are also gradually rebuilt their damaged houses and start their new lives or continue their previous activities.

During this situation, social interaction among local communities is significant. There are certain time when all external volunteers, help providers and agencies are going home and leaves Palu. Thus, Palu society itself should be able to become self-sustained and developed community. Language and communication, as part of human lives, contribute to some extents to construction of Palu self-sustained and developed society. Below are several aspects where language and communication contribute to:

A. Social Emotion Strength and Community Resilience

Language can generate social mental/psychological strength and social capacity to wake up. Palu natural disasters are massive calamity. They bring vast consequences. The impacts are not only suffered by directly impacted-victims who lost their houses, families/relatives, neighbors, friends, even their own selves, but also those who do not impacted directly. All of them may feel social sadness, trauma and anxiety.



Fig. 2. Slogan to motivate and strengthen Palu people to be resilient community

Today, Palu community creates a slogan/motto, Palu Kuat, Palu Bangkit (Palu strong, Palu rises). Figure 2 shows how the language is used as part communication for strengthening emotion. This slogan/motto can be seen everywhere: in front of offices, roads sides, campaign boards, advertisement boards, even in front of local people warung (traditional stall/store). The lexicon used in that slogan/motto is expected to generate emotion of being strong, induce capacity to bounce back from adversity and increase motivation to develop. These words are communicated widely and publicly to grow not only the directed affected victims, but also all community in Palu, to help each other to be strong and recover. Language relates to emotion. Language can

stir individual and social emotion at any levels: sounds, lexicon, grammar and situation/context which is beyond dialog or conversation (Majid, 2012, p. 432). Among those levels, emotive words are the most apparent (Majid, 2012, p. 435).

B. Social Warning and Informing

During and immediate after the disasters, information is not always communicated from government or authoritative agents to local people. Frequently, local people know more the situation around their areas. During and after disaster, Palu local people tend to make initiative communication informing the emergencies situation. For example, direct message “stop, putus jambatan” (stop, the bridge is broken). It is shown in figure 2, some local people inform emergencies physical damage to other people. It communicates danger or potential hazard to other people to minimize or avoid their injuries and save their lives. This indicates that during and after disasters, local people develop their own ways of communication, create their own emergency language and use emergency available media and tools.

Communication and language bound to disasters context may mediate community resilience by reducing and anticipating other people’s feeling of anxiety, evoking feeling of security, reducing more victims and damage even loss of life. This also indicates that the community helps each other, remind and save each other. Language becomes a tool for express hazards and enables the people to convey their messages. To recover from disaster adversity, the affected society needs mental strength, social support, effective coping strategies, sufficient preparation and effective use of resources and constructive life changes (Mao, Loke, Fung, & Hu, 2019, pp. 3–6). Moreover, resilience can be achieved when society can adapt and reduce the impacts of future damage (Davies & Davies, 2018, p. 745).

C. Social Anger and Panic

Disasters generate diverse emotion experiences. It is not only sad, anxious and desperate emotion, but also burning emotion, including anger and inclination to blame even punish the suspected people/person. Rough and harsh language also appears in some disasters areas at Palu. The doers tend to use impacted facilities or homes to intensify the feeling of anger. This situation can potentially provoke other people to also get angry and claim for fairness and responsibility of the accused person/people. Different from language of social emotion strength which tend to be calming and bounding, this language can ruin social effort to develop resilience together. Even more, it can stimulate chaotic situation, provocation and aggression. This can cause new risks of separation, and fight among communities which may cause more damage and increase its severity. Anger may reduce attention (Yiend, 2010), inhibit decision making (Litvak, Lerner, Tiedens, & Shonk, 2010) and problem solving (Brackett, Rivers, & Salovey, 2011, pp. 90–91).

D. Social Support

The other society-related language phenomenon is language and communication to support impacted society at Palu. Injuries, suffer and adversity which are experienced by Palu society generates feeling of empathy and sympathy from diverse communities, including Palu society itself. Donations and helps are given and provided by various parties: government, social volunteers, academics, researchers, social workers, social foundations, industrial companies. Together, they form solidarity for Palu and invite others to participate and contribute to help other people. As the result, language of social support and social care emerge. It contains messages to donate and pray, which indicates calls for helping physically and spiritually. These physical and spiritual supports are expected to empower impacted society to feel secure and be motivated to re-develop. Social empathy can generate social action to transform environment (Krznaric, n.d., p. 118). Empathy can evoke feeling of we, instead of I (Krznaric, n.d., p. 118) and a means of social education (Ioannidou & Konstantikaki, 2008, pp. 121–122).

E. Social Sharing and Problem Solving

After disasters, Palu people are continuing their daily interactions. One striking difference appearing is communicating their disaster experience: what happens to them, what they do, how they can save themselves and other people, what they believe about the cause of disasters and what they think can save them from future disasters. This interaction may emerge social sharing of emotion and potential problem solving. As described by sample of the data from interview.

“...when the earthquake happens, I am still warming up soup for eating after fasting. After that, when earthquake, the soup spills over the table. The stove is still turning on the kitchen, when the earthquake, I ran outside the house, but I remember that I am still cooking. So...I run inside the house again, turn off the stove and run outside the house again. Outside the house, I gather with neighbours...” (Local People Participant 1)

The data show the example of social sharing which in natural setting occurs in form of conversation/dialog among local people after disasters. The underlying benefits of this social sharing are people engaging in social interaction which can release their disaster tension since they are experiencing the same miserable situation. Indirectly they show series of action they are taken to save their own and family lives and potentially propose problem solving. During this conversation, they show various types of

language at any expression: language of panic, excited, surprised, expectation, feeling of lucky. Local people can be reliable and trustworthy informants who can help risk information analysts to find appropriate solutions (Robinson, 2017, p. 2).

This study indicates several language and society aspects after disasters. Firstly, language mirrors society in any situation. It mirrors human and social experiences of certain society, events that are experienced by society. Secondly, language can play functions of describing, even provoking certain actions after disaster. During and after disaster situation, language tends to have positive/constructive as well as destructive functions. Constructively, it can be used as tool for achieving disaster-resilient community: calming, supporting, motivating, empathizing, solving problem. Conversely, language can also be used to ruin society: provoking, boiling anger, misinforming. Thirdly, language can mediate process of constructing community resilience through its' social and emotional functions. Language can be both reflects and shape social behavior. It mirrors social emotion and direct how human and community should feel.

V. CONCLUSION

Language does not exist in normal situation only. It is the reflection of human-society experiences. After natural disasters at Palu on 2018, language plays some roles, including mediating social emotion, social support, sharing, social warming, informing and problem solving. Thus, language can potentially mediate society resilience from natural disasters, since language has power to influence and direct social action. However, language can also ruin society by fueling social anger, which may potentially emerge aggression, separation, war and damage. This means language can constructively or destructively play socio-emotional functions after natural disasters towards society development or regression.

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