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Review

Possible selves of a hashtag: Moving from the theory of speech acts to cultural objects to interpret hashtags

Gevisa La Rocca

Faculty of Human and Social Sciences, University of Enna "Kore", Italy.

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In recent years hashtag studies have increased their numbers. The role of hashtags becomes increasingly predominant in social media studies. Many researchers wonder how to study them, ending up treating them in an aggregate way and turning to big data and static-mathematical modeling. This type of studies seem to consider hashtags as tools, favoring a single analysis perspective. In fact, The studies and the research carried out in the field of social media deal with what users do with hashtags. This paper wishes to propose a different perspective. The question raised here is not "what users do with hashtags," but "what they do to hashtags." This theoretical approach presupposes a change in the perspective based on the reading of hashtags as speech acts, which impacts the construction of social reality and identifies hashtags as cultural products. This interpretative path of cultural nature seems to be necessary in order to be able to look at the hashtag as a concept that changes its meaning through human interaction. The consequence of inserting this perspective is that the hashtag becomes a multidimensional concept, which in order to be analyzed must be decomposed and analyzed in all its possible dimensions. If the aim of the research is to reconstruct the sense and meaning of the hashtag.

Key words: Affordances, cultural objects, Hashtag, sensemaking, speech act.

INTRODUCTION

In recent years studies on hashtags have increased the number of their appearances in trade journals and books and hashtags are starting to be the subject and the object of continuous analysis by scholars. This depends on their strength to aggregate people and allow them to express feelings and emotions. The hashtags studies have analyzed the phenomena of social television and the relationship between social media and politics, leaving behind several questions, such as: What is a hashtag? What elements is it made of? Is its meaning unchanging over time? These are aporias, doubts, key issues on

which to address the research, probably something about which the answer is still unknown or which has been little heeded. However, these are points that need to be resolved, if the attention of scholars today focuses on these connection-tools and on the effects they produce. These are points that need to be discussed, thematised, interpreted, if the goal of our work is the *Verstehen*.

The starting point of this paper is an attempt to understand and interpret the trend involving the current use of hashtags. In other words: Are they tools that are used only to index conversation topics and daily facts or

E-mail: gevisa.larocca@unikore.it.

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are they something more? When hashtags appeared first, their function was certainly to index conversations.

However, today we cannot ignore the fact that they are multitasking tools. Whether it is an event, a protest, or the life of a star, a hashtag is made up of a significant (symbol) # and a meaning. It is a semantic content that is formed by speech signs and mental images, continuously redefined through human actions and interactions.

Colleoni (2013) states that hashtags can serve as empty signifiers that invite the ideological identification of a polysemic orientation. Papacharissi (2016) defines them as signifiers that are not empty but open to definition, redefinition, and re-appropriation. They also signify the emotional component that users connect to events, the sense of public affection, or connected audiences (Boyd, 2010) that express their participation through the expressions of sentiments (Papacharissi, 2016). And while they connect people, themes, emotions, they broaden and modify their original meaning.

Therefore, there is something that goes beyond the label itself and opens up to new possible worlds of meaning, which need to be specified because only if we understand what hashtags are, we can identify their effects on the construction of social reality. Hence, we need to read them through epistemological, linguistic, cultural, and media lenses. In this paper, we place our attention on the hashtag - what a hashtag is and what its impact is on social reality. It is important to bear in mind that the point of view considered here is not a hashtag as a means, but as a purpose. In other words, we do not ask what users do with hashtags, but what they do to hashtags, and how many "possible selves" they allow to give them a shape.

A hashtag's signifier and meaning are explored by its three-dimensional interpretation: 1) a hashtag as a speech act; 2) the affordances of the hashtags; and 3) a hashtag as a cultural product.

POSSIBLE SELVES OF A HASHTAG

Markus and Nurius (1986) presented the theory of possible selves, indicating how research on the concept of self reveals the great diversity and complexity in the knowledge of the self and the importance that the self has in regulating behavior. Despite the proliferation in studies in their opinions - a few steps have been taken concerning the criticism of self-knowledge, represented by the control of one's possible selves. The concept of possible selves is ideal, depicting what a person would like to become and the desire of which can be frightening. The term possible selves contains the multiplicity of expressions that a person can come up with. Hence, they contain the person's potential, the person *in fieri*. This repertoire can be regarded as a personal repertoire, seen as the cognitive revelation of long-term objectives, aspirations, stimuli, fears, and threats. We could add that it is a folding fan of emotions. Thus, the term possible

selves provides a specific self-pertinent form, which is the organization and the direction of these dynamics. They are the essential connections between the concept of self and motivation (Markus and Nurius, 1986). The element that we are most interested in the description of the term possible selves is their being linked to the dynamic properties of the concept of oneself, that is motivation, distortion, and change-both temporary and long-lasting. In this sense, when we say "possible selves of a hashtag," we mean to say that a hashtag can have multiple expressions has a multiplicity of expressions it can give a form to. In other words, it can become something more than what it contains, and this self-pertinent form is potentially inserted in it. Possible selves of a hashtag are trusted to the agency of users, who allow them to emerge, contributing to the construction of social reality (Searle, 1995) and producing an impact on the social world (Griswold, 1997). By having both, a signifier and a meaning, a hashtag can change the content while moving from one tweet to another, thanks to the dynamic character of the concept it contains, through interaction, knowledge, and motivation. It is no longer different from what Boyd et al. (2010) state, by analyzing the practice of retweeting and considering the retweet as a conversation within Twitter.

All this cannot be surprising since the Medium Theory (Meyrowitz, 1985) has already made us aware of how technologies produce an impact on culture and social life. The use of different 'media' of communication reverberates its consequences on the experiential world of the human being (La Rocca, 2012). It is not difficult to accept the idea that the use of a means of communication for a prolonged period of time determines the nature itself of the knowledge to communicate, and that its pervasiveness brings to the birth of a new civilization, that is, to a particular form through which the material, social and spiritual life of a population reveals itself (Innis, 1951; Ong, 1982; La Rocca, 2017).

All this further enhanced by the introduction of the word and the concept of mediatization. It is connected to the process of the change in social and cultural institutions as a consequence of the growing influence of media, taking, however, the circumstances into account, that is, how the culture and society are changing (Cardoso, 2008; Couldry, 2012; Hjarvard, 2013). Influenced by the whirlwind of mediatization (Deacon and Stanyer, 2014; Lunt and Livingstone, 2015; Couldry and Hepp, 2017) and the mediatization of emotions, which transform social media into emotional media (Tettegah, 2016), and are populated by hashtags for political campaigns, terrorist attacks, environmental disasters, and the life and death of famous people (Döveling et al. 2018), a hashtag changes its meaning of a post in a post. Let us understand what it is.

The hashtag as a speech act

Trying to understand what is a hashtag is not only a

notional operation, it is also an operation that has got repercussions on how we analyze the content of the hashtags. How can we work with hashtags if we don't know what they are?

We can consider a hashtag as a speech act because it allows us to understand how the way we indicate “things” is changing; the words we use determine what we know, what we keep an idea of and give a representation. A similar perspective is that of the theory formulated in the 1950s and known as the theory of speech acts (Austin, 1962; Searle, 1969). This theory is based on the main assumption that “saying” is the same as “doing”. It seems that we can – at least – try to consider a hashtag as a speech act and thus try to understand what are the effects and consequences of this. A preliminary summary of what speech acts are, however, is necessary, although not exhaustive. Within this theory there are three levels in speech acts: locutionary acts, represented by the act of saying something; perlocutionary acts, which indicate all the consequences that saying something can have on who receives the communication; illocutionary acts, which represent the actions we perform and make them real by simply pronouncing them. In order to understand the reasons why hashtags have been associated with illocutionary acts, it is necessary to follow the considerations made by Searle in *Speech Acts* (1969) and in *The Construction of Social Reality* (1995).

Searle (1969) conceives language discourse as a behavior; He, therefore, believes that talking about speech corresponds to engaging oneself in a type of behavior. In his opinion, to speak means to make speech acts. He distinguishes four speech acts: uttering acts, propositional acts (divided into reference and predicative moments), illocutionary acts and perlocutionary ones. It is important to remember the lesson of Innis (1951) – about the nature of communication that depends on the support, the medium that vehiculates it – according to him interpretation we can affirm that today hashtags are creating new ways of considering speech acts with consequences traceable in the construction of the social reality, the latter to be considered as a constant relationship between mind and society which contributes to the creation of the social world (Searle, 2010).

In his works, Searle focuses on illocutionary and perlocutionary speech acts, considering, however, illocution as a “complete” speech act, or rather a speech act par excellence. According to Searle, illocutionary acts are a paradigm for reference and predicative acts, that is for the two acts that make up the propositional act. In Searle's opinion, when we make an illocution, we utter something, we transmit content, and we cause some effects as consequences in interlocutors.

When we create a parallelism between illocutionary acts and hashtags, and we start looking at the latter as speech acts, the distinction that Searle makes between sense, the meaning and the reference is of fundamental importance. Searle believes that meaning something and

saying something with a meaning are aspects of illocution since they are simultaneously intentional and conventional acts.

It is for this reason that we here associate the hashtag to the illocutionary act. A hashtag is an assertion followed by a proposition, by another assertion or by a multimodal content. This set of contents should be taken into account when we working with hashtags, otherwise their analysis is only partial, it is just a small part of the meanings that they contain. Only one possible self. But as it also happens with Searle, it is impossible to study only the uses of speech (Smith, 2003); in fact, it is necessary to study not only speech but also the brain, the mind, the laws of physics, and the kinds of social organization. Recognizing this, Searle treads a new path with work on intentionality, the mind, and the conscience. Here we follow the same path. To understand what one means by intentionality, which for Searle is the aboutness of the mind, and how much this is connected to speech acts, the mind or to the state of things, we need to distinguish the phenomena related to the observer from those independent from the observer, considering how the explicitation of two different points of view can contribute to the development of two analysis perspectives.

Thinking back to the hashtags we use on Twitter, what intrinsically contains a hashtag, considered separately from observers, users or other forms of external intentionality? It intrinsically includes digital characters made of bits that pass from one state to another very quickly. The core of the issue is exactly the following: in the passage from one state to another one, we digit, tweet, retweet the hashtags until they perform certain functions, but these functions are always related to the observer. This is the fundamental step, the awareness we need to understand how to look at hashtags. It is only because the observer knows how to interpret a hashtag and what it recalls that we can claim that a hashtag contains information in itself. Therefore, there is a sense of intentionality independent from the observer (intrinsic intentionality), a sense of intentionality extrinsic to the observer (extrinsic intentionality), and then a third form of intentionality, the metamorphic one. It is here, in this acquisition that we have already identified different interpretation possibilities for the hashtags; let's call them: possible selves. This distinction made by Searle is, without doubt, relevant when one needs to extract the meanings of hashtags and their re-modulation in the various uses by social media users. In the hashtag studies, it is necessary to start considering the associate contents linked to the hashtag, such as: images, videos, other hashtags, emojis, quoting and retweets, as crucial for the extraction of complete-meaning.

In fact, according to Bruns et al. 2016 the hashtag studies can be understood as representing the dominant stream of Twitter, but they are a “low-hanging fruit in social media data” (p. 1), and we can add that they can tell us what the theme of the day is, that bringing together

ad hoc publics (Bruns and Burgess, 2015) but – if not well analyzed – they cannot tell us how they are thinking about that theme the ad hoc publics.

So, whether we work with a quantitative approach, or that we work with a qualitative data analysis approach what we must keep in mind is that the hashtag is like a concept, and for this reason it is to be operationalized in all its dimensions. The interpretation of the hashtag like a speech act is useful to us, because it allows us to understand how many and which, visible or latent, are the dimensions of a hashtag.

Hence, we always need to distinguish between the literal use of the hashtag's intentional concepts, the literal use that describes intentional states intrinsic or independent from the observer, the literal use that describes intentional conditions, so only to the observer. These two literal applications of intentional notions should be in turn distinguished from the metaphorical applications of intentional notions. There is already a first indication on where we should look, that there is something that must be extracted and something that must be imagined/supposed, because it was added later. Another possible self.

Fundamental is Searle's clarification that it is impossible to have an intentional state without having also many others. Indeed, they presuppose beliefs, values, wishes and we can consider them as a web in which every intentional state works, in other words, determines one's conditions of satisfaction only for its position and relation to all the others on the web. The entire web of intentionality works only because there is a background, a field that makes it possible for the detailed elements of the web to work adequately. This field/background is able to put all the elements in communication with each other. Something of implicit that we all understand and feed. Such background does not consist of further beliefs added to the web itself, but rather of a *habitus*, shared social practices, ways of being correlated to it in some way. For these reasons the hashtag becomes a semantic umbrella, a polysemic connector, a vehicle of meanings, a collector of emotions always correlated, but which extend and redesign the nuances of sense and of original meaning. It is in this process that possible selves find development possibilities.

Applying to the hashtag the cultural diamond framework proposed by Griswold (1997) in which parallelism is created between the creator of a social phenomenon, its receiver, the social world and the cultural object. This way it is possible to obtain a hashtag that is created by a user (producer) to indicate an event, a phenomenon, a celebrity, a protest, etc. The creation of the hashtag takes place in the social world (here represented by the social media), but until there is no receiver (another user or a community of users) that can accept this hashtag and re-use it, the hashtag cannot become a cultural product; in other words, a shared

meaning inserted in a form. Without interaction, the passage to a metaphoric use of the hashtag's semantic and emotional content could not occur.

We need to understand how technology and society relate with one another; how the former enters in contact with cultural contexts, personal actions and social effects.

In some way, we have to consider the efficaciousness of human actions and the unexpected effects they have on social systems. As institutional facts (Searle, 1969), also hashtags are to be considered as facts whose existence presuppose the existence of certain human institutions. To clarify this statement Searle (1969) only tells us that given marriage, certain behavioural forms make up the union of two people. These institutions are constitutive rules, and institutional facts can only be explained according to the constitutive rules they are based on. Thinking about hashtags, they carry a set of constitutive rules that are both social and structural. Among the social ones, we can insert without doubt the cultural reference frame, the users' usage of a set of rules connected to social media, the knowledge of the effects of media or rather of a hashtag on social life; Among the structural ones we can insert the technical and technological components of social media. The producers and the receivers know the rules and the effects of hashtags on social media. The idea that hashtags can be considered speech acts inserts them in action theory, simply because speaking/digiting is a behavior regulated by rules. It is equally simple to imagine or better, to accept that hashtags produce effects, to be intended as the consequence of the intentional or not act of their being on social media. Indeed, not only they are the object of semantic remodulation inside social media through operations of retweets or quotations, but are also object of remediation (Bolter and Grusin, 1999). Remediation occurs when media gross roots take over a hashtag and turn it into a theme. Through a hashtag's remediation, and therefore through the compenetration of old and new communication technologies, hashtag meanings and social uses are reconfigured with new cultural interpretations open to unprecedented meanings. This happens because hashtags are themed through means of mass communication; in other words, they are placed at the attention of the public, so that they receive adequate coverage, underlining their centrality and meaningfulness in comparison with the normal flow of un themed information.

Affordance in hashtags

Hashtags and their use in social media represent a quite unique thematic index that designs a new perspective of connectivity (Bruns and Moe, 2014), especially if one considers retweet or quoting operations (Rathnayake and Suthers, 2018).

Social media like Twitter since they have appeared, have been the object of numerous studies and of various thematic in-depth analyses, among these there is a line of study that analyzed the dimension of connections between users, thanks to this tool, moving from the idea of a connected presence (Licoppe and Smoreda, 2005), of being together but alone (Turkle, 2011), to the analysis of tweets as a tool to provoke reactions in the audience (Marwick and Boyd, 2012), to reach the idea that on Twitter the users imagine their potential audience (Litt, 2012) and the Twitter networks can be both real and imagined (Gruzd et al., 2011), and as well as aggregate ad hoc publics. Interest in hashtags has become stronger in recent times, as evidenced by the volume edited by Rambukkana (2015), although research focuses on what hashtags are done in political communication. It seems that they are becoming increasingly pervasive communication tools, also entering in the spoken language, as slang. In the same way, as speakers used to say “quotation marks”; helping oneself with the hands and imitating the same quotation marks with the two fingers. More recently Rathnayake and Suthers (2018) have focused on hashtags as temporary connection affordances; after reviewing the literature on affordance. Obviously, they start from the ecologic theory of perception (Gibson, 1979), where the concept is born and subsequently adopted in other fields. It refers to the properties of the environment that activate or offer potential action by an agent. As many studies have shown (Wells, 2002), affordances are not just properties of the environment: They exist only as a relationship between an agent and his/her environment. A study of the uses of the concept of affordances was carried out by Bucher and Helmond (2018), who show how this concept has been examined from different perspectives: high-level and low-level affordances (Boyd, 2010), imagined affordances (Nagy and Neff, 2015) and vernacular affordances (Mcveigh-Schultz and Baym, 2015). Furthermore, Bucher and Helmond (2018) in their analysis of social platforms show how they can allow various types of users (among whom the final users and the developers) to perform different actions or changes to the platforms. According to Rathnayake and Suthers (2018), Twitter hashtags can be seen as affordances for two reasons: (1) the platform allows the creation of hashtags and (2) through hashtags different types of action emerge. To their analysis of hashtag affordances, we add a third reason: (3) the possibility of hashtags to change their original meaning thanks to retweets and quotations.

Rathnayake and Suthers (2018) study is based on the analysis of the independent interaction of media, ‘so [it] is not subject to the constraints that offline metaphors carry over to the analysis of online transactions, and therefore provides a foundation for a natively digital conception of phenomenological elements of online expressions’ (p. 2). They use a concept adopted from Suthers (2006), that of uptake, defined as ‘acts in which one participant takes up another’s contribution and does something further with it’

(Suthers, 2006: 331), to place momentary connectedness in the right context. They define momentary connectedness as ‘a novel conception of online publicness, as an extended computer-mediated sociality that includes transactive as well as non-transactive online activity’ (Rathnayake and Suthers, 2018: 2). They then introduce a further correlated concept, that of ‘projected uptake’. Indeed, if uptake is the ‘most fundamental element of interaction’ (Suthers et al., 2010), projected uptake is based on the affordances of acts for future uptake. The objective with which they introduce these two concepts is to examine transactive as well as non-transactive elements in Twitter hashtags. For them, hashtags are affordances of the platform that organize instances of momentary connectedness into networks.

In line with our idea that hashtags change through human interaction – that is, its usage – its original meaning is their concept of project uptake. However, as already signalled, the objective of this work is to understand what a hashtag is and how affordance allows it to develop its possible selves, which it already contains in itself. This is easy to imagine, especially if we consider a hashtag as a cultural product. For example, the hashtag #MeToo had a literal meaning when it was put on the social networks, and it was launched by a feminist movement against violence on women. However, it became viral in October 2017, as a hashtag used by social media to help show the widespread presence of sexual violence and harassment against women after the public revelation of the accusations of sexual violence against Harvey Weinstein. If we now carry out a research on such hashtag, we can understand how its original meaning has been widened, transfigured, through human interactions, that is through its usage and spreadability (Jenkins, 2006). Following Searle (1969), it is possible to affirm that the original literal meaning has widened – giving space to the possible selves that every hashtag contains – in other words, intentional metaphoric and figured usages generated by intentional and non-intentional acts have developed, independently from who is the initial creator of the hashtag itself.

According to this perspective, it is possible to consider affordances guided by Hutchby (2001a, b) studies, who uses this term to go beyond any naive technological determinism and rigorous social constructivism. Hutchby suggests that affordance provides a middle term able to consider both the ways in which technologies are socially constructed and positioned and how they are both materially binding and enabling. The scholar coins the expression communicative affordances to refer to all the possible acts deriving from technology (2001a). It is possible to state that the individual act of retweeting a hashtag can be reconducted to communicative affordances. For Hutchby and Barnett (2005) the expression communicative affordances stress how affordances are both functional and relational. Furthermore, affordances can shape the possibilities connected to action in a double way: by defining the necessary ways to

perform the action and, by so doing, excluding other ones (Hutchby and Barnett, 2005). The best way to observe affordances is to evaluate the efficaciousness of human actions, that is to address the agency, understanding how technologies show their affordances while actors are engaged in performing an action within the social system using them. The agency derives from the actor's knowledge of the frameworks and from his/her ability to apply them to new contexts (Sewell, 2009), operating little transformative actions (Goffman, 1967) and working in a creative way. This is a process that has obviously been consolidated and amplified by top-down, bottom-up and horizontal media production mechanisms which intersect with the communicative empowerment and the cultural convergence theorized by Jenkins (2006).

Whether a hashtag is a cultural product

If we consider a hashtag as a cultural product - that changes its meaning through human actions- we need to start asking ourselves about what we can know about it. In fact, several scholars (Boyd and Crawford, 2012) are beginning to wonder what phenomena big data can explain and what they cannot (p. 666).. Some questions remain open such as the following: Can data, although they are big data, speak for themselves? Do topic trends really tell the truth? And what kind of truth? What does the datification process tell us?

In the same article Boyd and Crawford (2012) claim that taken out of context, big data lose their meaning, because big size data sets are subject to modelization processes, opening new questions on algorithms and big data. It becomes increasingly necessary to understand what it means to investigate the sense and meaning of a hashtag and what they are, only in this way can they be extrapolated.

In addition, the context inside which big data – here represented by hashtags – are created and spread, remains difficult to investigate and interpret. Boyd and Crawford (2012) believe that for these reasons the context of big data management and analysis will be in constant evolution. Here we necessarily ask what we can understand about hashtags and whether they are a cultural product. If they change meaning via human action and interaction, what can we know about them? Hence, we are in search of a *Weltanschauung* capable of addressing research.

In the search of a framework, we need to bear in mind that it is possible to fully understand the “type” of communication tool only after a further step in technology has been made; This means that we can understand the radio after the advent of T.V., of T.V. after the advent of the computer, of the computer after the advent of the Internet, and of the Internet after the advent of the social media. Of this intertwinement of knowledge, we possess some “cultural objectifications”, a fragment of a wider knowledge; We are referring to formations of sense that

we use in every cognitive act and that should show us thanks to their intertwinement, the phenomenon in its entirety (Mannheim, 1952).

Mannheim faces the methodological problem of the scientific study of cultural objects following a phenomenological framework and considering them as “structured units of sense”. Cultural objects are placed in a sort of middle level between a theoretical understanding and an irrational one. For this reason their study requires an interpretation of the levels of sense: a) the objective sense; b) the intentional sense of expression; c) the documentary sense (1952).

What are we talking about? On the contrary of a natural object, to understand what is a cultural object or product we need not only to penetrate its objective meaning, that is its appearing as it is, but also to consider it as an expression and as a document that informs us about something, if our desire is to fully understand its nature. In the case of the hashtag #MeToo, reference is made to a social problem placed in a certain historical, economic and political moment and of which users have become spokespersons and spreaders. The consequence is that daily life cultural objects are to be considered as formations of meaning. The sense is to be seen also in expression (the expressive meaning), the latter inseparable from the person and his/her experiences; in fact, the expressive sense acquires its meaning and uniqueness only if related to the interior world it is expressed by. The expression of the interior world through a cultural object gives to the person in contact with it a documentary meaning, that is the translation of the meaning of the object or of the action that gives the habitus of who performs it; It is for this reason that the documentary sense is understood only by the observer.

In order to understand this mechanism, it is necessary to divide the sensemaking process into two steps: a) the represented content and its representation; b) the content of the means used, the material used and the form it acquires (the medium). Let's consider the hashtag #MeToo. If we stop at the represented content, we immediately find the objective element and the expressive one: form and content. We find the Feminist movement with its revendications and the educational, informative and divulgative function of the posts. We notice that the distinction between form and content is fluid. Another distinction can be made with reference to the documentary meaning, that is the valence that the observer gives to this hashtag or hashtag cloud. What function is performed by the hashtag #MeToo for who created it and for who has retweeted it? To visualize the distinction, we must think about two audiences: the supporters and the detractors. It is obvious that different expressive moments are attributed to the same events and figures and this depends on the user. However, to grasp the intention of the individual, creator of the hashtag and to interpret correctly the meaning, one needs to study in-depth the intentions of the meaning of that moment and of the specific creator (Mannheim,

1952).

The consequence of this is that the cultural objects of daily life - and we consider hashtags as such - are to be considered as sense formations. The meaning is to be found also in the expression (expressive meaning); the latter cannot be separated from the individual and his/her experience. Indeed, the expressive meaning becomes understandable and unique only if placed in relationship with the interior world of the person who expresses it. Expressing one's interior world through a cultural object gives a documentary meaning to who is interacting with it. In other words, it is a translation of the meaning of the object or of the action, which in turn gives us the *habitus* (Bourdieu, 1979) of who performs it. It is for this reason that the documentary meaning can be understood only by the observer.

In other words, the meaning sends us to our pre-reflexive propensity, to an emotional oscillation of our subjectivity, which cannot, however, be considered as presence to oneself, but as an orientation to the other and to things. Before establishing a relationship with ourselves, we are already in a relationship with the world outside us. Thus, relationships come before awareness. Sense contains an evident ambiguity due to its coming to life in front of the other or in front of an object and to its always being related to events which are simultaneously a tie and a possibility because it is connected to our intrapsychic world.

Tracing the origin of sense means entering the world of meaning. This requires stepping into the reflexive space of intentionality, and into a symbolic dimension made up of collective experiences and of the social sharing of symbols. Sensemaking emerges from the intersection of the pre-reflexive subjective area with the reflexive and transitive area of social sharing (Weick, 1995). Sensemaking is the process of continuous coevolution between the pre-reflexive (sense) and the reflexive (meaning). According to Weick (1995), sensemaking has seven characteristics and these are connected to processes of signification. Indeed, sensemaking is founded on the construction of our identity, being implied that when we are defining somebody or something, we are also defining ourselves; It is retrospective because when we search for the documentary meaning of something that we are making is a retrospective analysis of what has already occurred; It creates sensible environments; It is social because so can be considered the social substratum which constantly models the interpretations as well as the interpreting; It is continuous because it has no beginning and no end; It is centered on specific information;

Finally, it is plausible because its prerogative is not accurateness but plausibility. What we aim to reach with sensemaking is the clarification of past human situations, which are therefore social. In the reconstruction of the social meaning of daily practices what we obtain is the discovery of the nature of the situations in which

individuals are acting (Garfinkel, 1967). In the sensemaking process, crucial are the questions, that is asking ourselves for example, why things are in a certain way and what will happen after. It is in its being a retrospective process when building sense that we can here retrieve the concept, and this is possible because it is socially inserted in time and space and in particular because it is capable of joining action and cognition. When we analyze the data extracted from social media and indexed by the use of hashtags, we should bear this in mind: the importance of the social construction of the hashtag and the meanings that lie beneath it. Whether we use them for audience analysis (Athique, 2018) or catastrophic events (Matheson, 2018), we must keep in mind that they are born with a particular sense attribution, but that it changes through interaction, developing the possible selves that hashtag contains.

CONCLUSIONS

What is a hashtag? How can its original meaning change giving a way to its possible selves, that is to its implicit contents? What impact do hashtags have on social reality and what can we learn by studying them?

The interpretations given so far have allowed considering the hashtag itself, that is to focus on what it could be. In doing this, the theories of speech acts and of the construction of social reality have been used (Searle, 1969, 1995). They permit us to consider the hashtag as a cultural product (Griswold, 1997) and they open up to a perspective based on cultural objectivization (Mannheim, 1952) and sensemaking (Mannheim, 1952), concluding in a study carried out ex-post that what we know about a hashtag can be defined as retrospective sensemaking (Weick, 1995). If we allow ourselves to be guided by Griswold's cultural diamond theory (1997), we have that a producer creates a #hashtag; he/she inserts it into the social world represented by the social media; it is then reused by the receivers, in this case, the users of social networks, who by quoting or retweeting, transform it into a cultural product thanks to communicative affordances (Figure 1).

Transforming the hashtag into a cultural object, the receivers allow the hashtag's possible selves to emerge. In all this process we can discover portions of meaning. The objective meaning is represented by the source; in other words, by the producer; the expressive meaning is used to trace and delimit the intention of the cultural product and it is included in the receiver's action; the documentary meaning gives information about what the hashtag becomes passing from one tweet to another. It is typical of the cultural object.

CONFLICT OF INTERESTS

The author has not declared any conflict of interests.

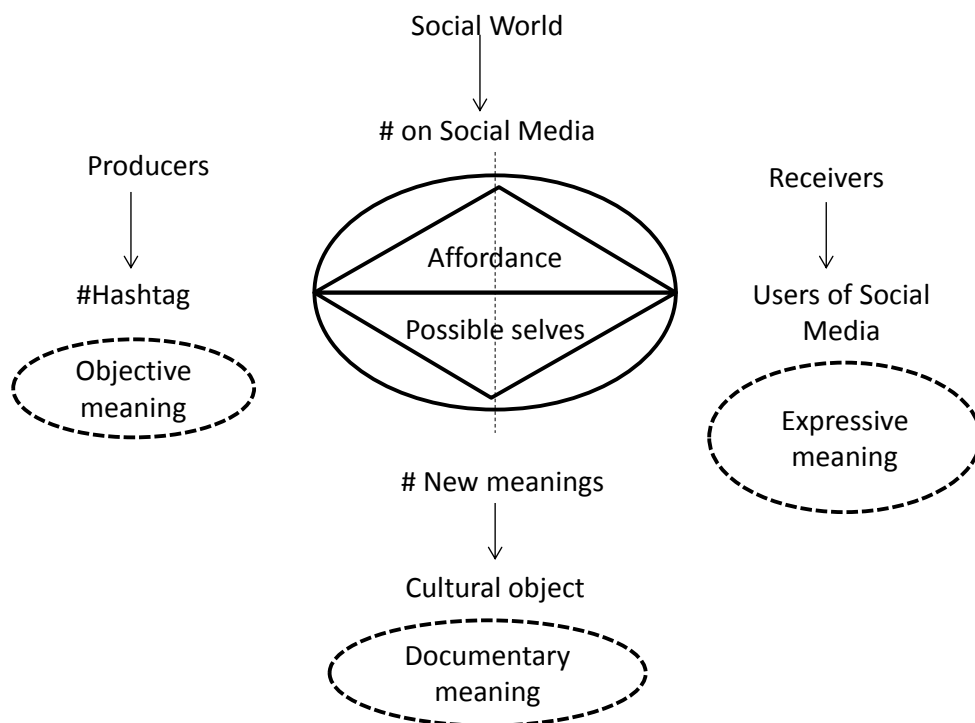


Figure 1. Schematic summary.

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Full Length Research Paper

Recognising religious and superstitious rituals within higher education contexts: A case study of Stellenbosch University, South Africa

Neeske Alexander* and Elmarie Costandius

Department of Visual Arts, Faculty of Arts and Social Sciences, Stellenbosch University, South Africa.

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In South Africa the task of decolonising the curriculum in higher education institutions falls upon researchers and lecturers. Within the case study of the Visual Communication Design curriculum at Stellenbosch University we noticed that students' superstitious and religious beliefs and rituals surfaced in their responses to the coursework even though there was an attempt to steer away from traditional religious education. Students' experiences included engagement with African religious rituals, the effects of omens, the use of rituals for academic success and the rejections of superstitious and religious beliefs. These experiences were interpreted from a post-colonial perspective. Critical citizenship education and appreciation of worldview diversity is suggested as tools for transformation toward decolonising the curriculum by recognising and legitimising different experiences and actions related to superstitious and religious beliefs in higher education classrooms.

Key words: Superstition, higher education, belief, South Africa, post-colonial.

INTRODUCTION

South Africa is a nation where everyone is directly or indirectly influenced by Western science and philosophy as well as African and Christian worldviews (Malcolm and Alant, 2004). Superstitious rituals play a crucial role in the social fabric of South African society where unexplainable events are attributed to the supernatural even if this seems scientifically irrational (Tenkorang et al., 2011). Religious rituals are practised in South Africa and reflect the diverse beliefs present in the country. Superstition, African indigenous religion, Christian beliefs, and Islamic beliefs play a role in the everyday lives of South Africans,

including, for example, taxi drivers' perceptions of road traffic accidents (Peltzer and Renner, 2003) and individuals' decisions regarding HIV and AIDS (Tenkorang et al., 2011). Superstitious and religious beliefs and rituals by extension also exist in the higher education context of South Africa.

During community interaction projects within the Visual Communication Design (VCD) module at Stellenbosch University, elements of superstitious rituals and religious rituals surfaced. The focus of the module was critical citizenship education and there was an effort to steer

*Corresponding author. E-mail: neeskealexander@gmail.com.

away from focussing on superstitious and religious beliefs. However, some students revealed the impact that their beliefs and rituals have on their studies and their lives. Some students pray before examinations, some rely on the influence of their ancestors and others recognise lucky or unlucky omens. As lecturers and educators, it is important to try to understand how beliefs and rituals can affect students in positive and negative ways.

In higher education, there is a serious call for transformation and decolonising of the curriculum. As white South African researchers with personal histories entwined with Afrikaans Christian rituals, we naturally find other beliefs and rituals strange and surprising. However, we would like to create a space in higher education where students' religious and superstitious beliefs and rituals are recognised and acknowledged as legitimate. One of the possible obstacles to transformation and the decolonisation of the curriculum is the lack of understanding of and space for variations of belief systems and rituals based on differing worldviews. The appearance of superstitious and religious rituals in higher education has not been well researched within the current context of higher education institutions in South Africa. This could be due to the complexity and deeply personal nature of beliefs and rituals.

THEORY AND CONTEXT

In order to situate this research in a theoretical context, it is necessary to give an overview of the key concepts: worldview, belief, superstition and religion. A post-colonial perspective is used to understand knowledge, superstition, African religions, higher educational institutions and education practices.

An overview of concepts

A person's worldview consists of ideas about who they are, what the meaning and purpose of their life is, their responsibilities and obligations, recognising 'right' and 'wrong', and their hopes for the future (Valk, 2009). We learn and build a worldview based on our experiences but also on cultural traditions of knowledge, which allow us to gather information beyond our own experiences (Beck and Forstmeier, 2007). It is important to realise our own perceptions of the world, our beliefs and values as well as the contexts which influence them (Valk, 2009). When our scientific worldview offers no prediction on the individual case, we are prone to turn to superstitious or religious belief and ritual to help predict the outcome. We use these beliefs and rituals as a hedge against uncertainty (Vyse, 1997).

Beck and Forstmeier (2007) suggest that it is often necessary for us to create unproven constructs that

explain a causal link between our observations. These unproven constructs are called beliefs (Beck and Forstmeier, 2007). They help to create consistency in our worldviews by providing reasons for otherwise inexplicable observations. Both religion and science rely on constructs such as beliefs.

Beck and Forstmeier (2007) define superstition as an incorrect idea about an external reality. This definition applies regardless of whether superstition is self-created, culturally transmitted or genetically inherited (Beck and Forstmeier, 2007). Superstition is defined in Oxford Dictionaries (2016) as excessively credulous belief in and reverence for the supernatural. It refers to a widely held but irrational belief in supernatural influences, especially as leading to good or bad luck, or a practice based on such a belief (Oxford Dictionaries, 2016). This practice based in superstitious belief is what we refer to as a ritual.

Some academics find the definition of religion complex and question whether it can truly be defined (Ferré, 1970; Lease, 2000). Religion as ideology, religion as politics, religion as distributor of power or religion as violence are all different perspectives of defining religion (Lease, 2000). For the purpose of this article, we adopted the flexible definition of religion as an intensive comprehensive valuing of a set of beliefs and practices (Ferré, 1970) that is deeply bound with culture (Lease, 2000). Religion is an important source of identity for many people and legitimises the actions they support or oppose in their personal and societal life (Wilson, 2006).

In this article we adopt a pluralistic notion of these concepts, where what we believe affects our emotions and actions regardless of how we or others label it. Our aim is not to discuss the various definitions of worldview, belief, superstition and religion or to find where one starts and the other ends. Our goal is to present instances where superstitious and/or religious belief has led students to participate in rituals within the higher education context and to consider how we might respond to such instances while aiming to decolonise higher education curricula.

A post-colonial perspective

Superstitious and religious beliefs have a long history and they are present within all cultures and societies. Colonial histories affect the way in which religious and superstitious beliefs and rituals are practised, controlled and defined. We view knowledge, superstition, African religions, higher educational institutions and education practices through the lens of post-colonial theory, which takes into account issues of power, dominance, and race.

Knowledge and knowledge-production are largely controlled by dominant Western powers. Santos (2006) asks how the universal validity of scientific truth relates to other truths that cannot be established according to scientific methods – such as superstitions or religious

beliefs. He suggests an invisible line that separates accepted knowledge (science, philosophy, theology) from unrecognised knowledges (beliefs, opinions, intuition). Western imperial knowledge legitimised Christian theology, secular philosophy and science as the limits of knowledge-making beyond which all other knowledge is lacking: folklore, myth, and traditional knowledge (Mignolo, 2009).

Superstitious beliefs are marginal to dominant knowledge systems. Superstitious and religious beliefs are often rejected and marginalised by scientific culture. Anthropologists have difficulty placing the origins of superstition while distinguishing it from religion and science (Vyse, 1997). But who decides which beliefs are superstitious and which beliefs are religious? Superstition is present in both Western and African thought (Nakusera, 2004). Western societies have a high incidence of superstitious ideas on topics such as gambling, sports and personal fate (Beck and Forstmeier, 2007). Many believe that carrying good-luck charms or knocking on wood will either ward off bad fortune or bring good fortune (Vyse, 1997). African societies hold superstitious ideas, including perceptions about witchcraft, the Tokoloshe (an evil, hairy being) and seeing an owl as a bad omen (Peltzer and Renner, 2003). It seems that superstition has to do with the 'other', the marginalised acts and beliefs contrary to the dominant belief system. Superstition and religion are intertwined and become difficult to separate when one considers the power differences and the different perspectives that are always present. From a post-colonial perspective, it is clear that African religions are often devalued and classified as superstition.

African indigenous religions are devalued by both Western scholars and Christian missionaries. From the Western scholarly perspective, African indigenous religions are assumed to be false due to the presence of supernatural activities and from a Christian perspective belief in and communication with ancestors is seen as sin. The subjugation of black African people by white colonists resulted in the devaluing of black African culture, including its thinking, beliefs, rituals and knowledge. According to Mignolo (2009) European hegemonic knowledge does not consider the experiences of those who fall outside the European, white hegemony – those whose lived experiences are/were shaped by the racial matrix of the colonised/colonial world and the inferior place that Christianity gives/gave to blackness (Mignolo, 2009). The lived experience of the black person, then, is always translated through the gaze of the white (Mignolo, 2009). The message implicit in 'black theology' is to do away with spiritual poverty of the black people. It seeks to demonstrate the absurdity of the assumption by white people that 'ancestor worship' (Showing great respect for and consulting ancestors is part of African indigenous religious activity) is necessarily a superstition and that Christianity is a scientific religion

(Biko, 1987:31).

Higher educational institutions in South African have been shaped by the country's colonial past. We should be concerned with the invisible dynamics of colonialism, as it influences learning in higher educational institutions by setting up colonial perspectives as knowledge, research, data and findings while simultaneously rationalising and maintaining the unjust social structures of colonisation (Tuck and Wayne, 2012). During 2015 and 2016, there was an outcry from students to decolonise the curriculum at universities in South Africa. The concern regarding curriculum content is that it is dominated by white, male, Western, capitalist, heterosexual, European worldviews (Shay, 2016). This content underrepresents and undervalues the perspectives, experiences and epistemologies of those who fall outside of these categories (Shay, 2016). A-Magid (2011) notes that the Western domination of knowledge and the marginalisation of African belief systems call for comprehensive evaluation, rigorous planning and watchful implementation of decolonising strategies. Decolonised curricula should give indigenous African knowledge systems an equal and valid place among the array of knowledge systems in the world (Higgs, 2016). Within the VCD curriculum, the recognition of different worldviews including superstitious and religious rituals could be a step toward decolonising visual arts education at Stellenbosch University. Critical citizenship education is the method we suggest for this purpose.

Education practices should, from a post-colonial point of view, promote critical citizenship and appreciation of worldview diversity. Critical citizenship is based on the promotion of a common set of shared values such as tolerance, diversity, human rights and democracy. As an educational pedagogy, it encourages critical reflection on the past and the imagining of a possible future shaped by social justice, in order to prepare people to live together in harmony in diverse societies (Johnson and Morris, 2010). It should be noted that critical citizenship can be seen as a western concept and has been compared to African concepts such as *ubuntu/ bumuntu/ omuluabi* (Costandius and Odiboh, under review). According to these African concepts, diversity is understood in relation to tolerance (tolerance for individual and group differences), corruption and lack of freedom of speech is identified as violations of human rights, and democracy is sometimes seen as in conflict with African traditions (Costandius and Odiboh, under review). In order to maintain links to previous research, we continue to use the term 'critical citizenship', but we reflect critically on the similarities and differences between western and African concepts thereof.

Critical reflection generally refers to higher-order thinking that questions assumptions or facilitates a willingness to look from different perspectives (Costandius and Bitzer, 2015). Critical thinking includes an ability to think holistically - to see different worldviews

Table 1. Participants and data collection.

Technique	Participants	Time	Duration	ID Coding
4 Individual interviews	3 Black students (2 nd and 4 th year) 1 Coloured student (4 th year) 3rd- and 4th-year students	October – November 2009 Before the CC projects	1-1.5 h per session	Students 1-4
6 Individual interviews	2 Black 3 Coloured 1 White 3rd- and 4th-year students	October 2011 During the CC projects	45 min – 1 h per session	Students 5-10
1 Group interview	2 Black 5 White Postgraduate students	February 2012 During the CC projects	1 h	Students 11-17
3 Individual interviews	1 Coloured (student 8) 1 Black (student 11) 1 White (student 15)	March 2015 During their postgraduate studies	40 min - 1 h per session	Students 8, 11 and 15

in perspective. Dialogue with others who are different, who have different worldviews, helps us see things from different perspectives and to contextualize our own worldview (Paul 1982 as cited in Mason 2008). Hoosain and Salili (2006), Williams et al. (2008) and Valk and Tosun (2016) argue that it is vital for educators to promote awareness of worldview diversity and to counter stereotypes linked to certain belief systems. Students should be encouraged to look at reality through the eyes of others (Selçuk and Valk, 2012). This can be done by creating safe opportunities for learners to experience other forms of seeing, thinking, being, and relating to each other (Andreotti, 2006). Kunzman (2006) argues that understanding of others' beliefs would allow the outsider to appreciate the sacred importance of something apparently insignificant. This does not mean that the outsider will agree with this importance, but it provides the opportunity to gain insight into what gives meaning to the lives of others in society. Exposing students to religious and secular worldviews, opens up a new and inclusive space where there is openness, plurality and critical thinking (Valk and Tosun, 2016). Critical Citizenship Education including appreciation of worldview diversity can therefore be used as a means of decolonising curricula, because it breaks down dominant, established ways of seeing by thinking critically and by collaboratively recognising new and previously silenced voices and experiences.

MATERIALS AND METHODS

We followed an interpretive approach and a case study research design that aimed at exploring superstitious and religious rituals that emerged during the Critical Citizenship projects in the VCD module. The main strategies for promoting critical citizenship were: community interactions, dialogue (including dialogue with those

who are different), reflective writings and art and design as a medium for learning. Written reflections were used as a source of data and semi-structured interviews were conducted with students from Stellenbosch University who came from South Africa, Zimbabwe and Botswana.

The data were collected from 2009 to 2015. During 2009, before the Critical Citizenship projects were presented, individual interviews were conducted with four students as part of a Ph.D. study on Critical Citizenship. From 2011 to 2015, all students in the VCD module who participated in the Critical Citizenship projects wrote reflections on their experiences during the projects. These reflections were not formally structured by specific questions – students could choose what they wanted to reflect on. From this data, 17 participants were selected who wrote about the topic of superstitious and religious beliefs and rituals. Refer to Table 1 for more information about the participants and the data collection. These 17 students took part in audio-recorded, semi-structured individual and/or group interviews.

Inductive content analysis was used. All data were investigated and only data that mentioned superstitious or religious rituals were extracted for further analysis. Limitations to the study included small sample size and researcher bias. Our positionality as white, Afrikaans women from Christian backgrounds influenced our reading of the data. To compensate for this, a black colleague was asked to act as an independent reviewer of some of the data. We also reflected on the way in which the research was conducted, on our knowledge of critical racial perspectives and on our own views, perceptions and biases (Milner, 2007). The aim of the study inevitably was not to generalise, but to provide an in-depth exploration of the phenomena that became visible during the investigation. Ethical clearance for this research was obtained from the Departmental Ethics Screening Committee of Stellenbosch University.

RESULTS AND DISCUSSION

By investigating literature about superstitious and religious beliefs and rituals we have gained a deeper understanding of the topic. This can help us foster tolerance for religious and superstitious diversity –

resulting in the ability to facilitate dialogue with students regarding these issues. Below follows a presentation and discussion of the beliefs and ritual practices that surfaced in participants' written reflections and during interviews. Themes that emerged were: The engagement with African religious beliefs and rituals, the effects of omens, the use of rituals for academic success, the rejection of superstitious and religious beliefs.

The engagement with African religious beliefs and rituals

Students engaged with African religious beliefs and rituals on a personal level. Student 12 told of how he became ill when he was young. Doctors could not help him and eventually a prophet told his mother that he needed to appease the ancestors. He then went to KwaZulu-Natal, where his father slaughtered a goat to introduce him to the ancestors. After that he became healthy and he started believing in the ancestors. In one of the VCD projects titled *Design for Healing*, a student felt that building a 3D module of clay depicting a distressing moment could violate the ancestors. These experiences influence students and also affect their studies. Student 13 had the following to say: Spiritually plays a big role in my studies – more than I realised. I consider myself a Christian, however, when nothing is going right, I go back to my roots. I have and still believe that out there my ancestors are looking out for me.

In some cases, dominant belief systems were viewed as religion, while African belief systems were seen as 'traditions', 'superstitions' or merely 'cultural elements'. The following quote shows how Christianity is viewed as 'religion', while the amaHlubi belief system is viewed as 'tradition' and 'culture'. AmaHlubi refers to the Hlubi people originating from South East Africa. Their tribe is closely linked to the amaSwazi and Sotho tribes. For at least two centuries they have been a part of the Nguni, Mbo or Lala nation and live primarily in the KwaZulu-Natal, Eastern Cape and Northwest provinces of South Africa (AmaHlubi.org, 2016). Student 15 spoke about her interaction with a learner during one of the Critical Citizenship projects. [The learner] turned to her church and Christianity about a year ago. Although her family is not very religious, [the learner] has become a devout Christian and many of her traditional Hlubi traditions have been replaced by religious practice. This is a very interesting aspect to look at because one has to wonder what kind of impact the acceptance of another religion has on cultural diversity. Perhaps certain traditional aspects are lost whilst new religious ones are gained and perhaps these new practices will merely become a part of her culture.

The effects of omens

The students considered certain animals and dreams as

either good or bad omens. These omens affected their experiences. Student 13 told of the way in which dreams affected her: No matter how much I did not understand a brief, if I dreamt of grandmother telling me to shower or sending me to sit under a green tree, I knew that would be a good sign of my passing. I did have instances when I would see her in my dream and she would not be happy or not talk to me; this always meant something terrible would happen. And it always did; it would either be a situation at home or just an emotionally challenging situation I would face on campus. My mother always called at the most awkward times if she had a dream about anything that she would attach to me.

Animals were a key part of the students' beliefs. Student 10 said that she knows the day will be blessed if she hears a robin singing. In contrast, most of the students' experiences with animals as omens were negative. Owls were an especially bad omen, but squirrels and cats were also included. The following extracts show what impact the presence of certain animals has on students:

Student 13: A squirrel in my culture – if it crosses your path – means something bad is going to happen. My first year was the hardest because squirrels kept crossing my path and I would [get] very agitated because I would be expecting the worst to happen to me, if not at home, to my children. I spent a lot of money on airtime calling my mother every time a squirrel crossed my path. The following comment from Student 12 shows how different students have differing beliefs about owls.

Student 12: [Name of other student] said an owl symbolises wisdom. I was kind of surprised, but I had to understand that she comes from a different background. I told her where I'm from an owl symbolises evil things. She told me she had heard of that. When I was doing my first year, I used to work a lot in the studio, by the time I finish it would be dark. I would see owls and cats on my way home; I was so scared I thought I was going to see a zombie... My housemate told me that the evil spirit is chasing him; he said it is using owls to get him. He said back in [the] Eastern Cape, owls used to make noises every time he was studying for exams. He said we needed to pray so that we can chase away the evil spirit... Sometimes I would see an owl in the parking lot, and I would use another route, because I did not want to get close to an owl. Some of the black students felt the same way; they also did not want to get closer to an owl. There was a black student who tried to chase the owl away, but then other students stopped him. It is important for students to be exposed to and to try to understand the ways in which certain animals/omens affect other students and to recognise the very negative impact that the

presence of owls can have on some students' experience.

Student 13: In my third year for a month I would not drive to the library or studio in the evenings because I had seen an owl on the roof of the building opposite the studio...I sporadically went to class and did not go out after dark. The last time I had seen an owl was in 1997 on the 21st of June, the same day my father died. My seeing that owl [on the roof] was not the best of things, I couldn't tell my mother because that would send her into hospital because she truly believes in all the superstitious beliefs. I do, but sometimes I would shake some of the issues – not the owl. It took a toll on me, so much that for a month I was afraid to drive in case I'm involved in [an] accident or something. What made it worse was the stray cats that would cry like human babies – something that is associated with funerals at home.

It is clear that the presence of the owl had a very negative effect on Student 13 even though she could sometimes 'shake some of the [superstitious] issues'. It is possible that this student experienced conflict between her own negative westernised perspective of superstition and her intuitive superstitious belief. From a pluralistic viewpoint, superstitious belief can exist with westernised perspectives and from a post-colonial perspective, we could question why her beliefs about owls are labelled as 'superstitious' (even by herself).

The impact of animals on the experiences of students can affect their studies. The example that Student 13 gave of missing class due to the presence of owls is something that would likely not be understood by white lecturers unless there was a discussion and an awareness of the beliefs associated with owls as bad omens. These beliefs are held by some black students, who are in the minority at Stellenbosch University. How are their beliefs and sometimes extremely negative experiences ignored by the dominant white western culture in higher educational institutions? How can awareness and sensitivity to black students' beliefs be achieved without viewing these beliefs through a white gaze as strange, exotic and primitive?

The use of rituals for academic success

Some superstitious and religious rituals are personal and rely on performing certain actions before or during an important event, such as writing an examination. Damisch et al. (2010) found that participants in their study showed better performance when a good-luck-associated superstition was activated (such as wearing a lucky shirt), because it increased participants' belief in their own ability to succeed at a given task. According to Vyse (1997), students use superstitious and religious rituals to

cope with examinations. We found that studies and examinations were prominent areas where students' beliefs resulted in actions to improve their chances of achieving success.

Student 2 mentioned habits and rituals to help him focus on his work, such as listening to specific music. Student 4 also commented on the use of music: 'Before an exam I always play music, silence before an exam for me is worrying'. Student 13 relied on her ancestor: 'I still hope and pray that my grandmother pulls through for me, especially in my studies now'.

Students also made use of religious symbols and rituals to help them cope with examinations. Student 11 mentioned that in Islam there is a specific prayer to improve learning and retaining information when studying for examinations. Student 7 spoke about an app on her phone that provides daily verses from the Bible. She said that these verses give her hope and courage during the examinations. Student 6 used a Bible in the following way: I carry a small Bible with me and before I write an exam I open it on a random place and the first word or sentence I take as a message for my exam.

As with the case of Damisch et al. (2010), where participants showed better performance when a good-luck-associated superstition was activated, students' superstitious and religious rituals may increase their belief in their ability to succeed at examinations. Opportunity and space should therefore be created for students to perform these rituals.

The rejection of superstitious and religious beliefs

Some students rejected certain beliefs and rituals. Reasons for this varied from personal preference, previous negative experiences and ideas about critical thinking. Student 1 mentioned: 'I think superstition is silly and irrational, I do not believe in anything. I am an atheist'. According to Student 3, religion is a hindrance to the art department. Student 9 mentioned the lack of critical thinking associated with religious rituals by referring to a specific popular church on campus: There are also students who grew up without religion and then join a church like [name of church]. They judge others that do not believe. [Name of church] have just one way, against critical thinking. That could also be a problem.

Student 16 spoke of how she felt '*brainwashed*' by the religion of her parents (Afrikaans Dutch Reformed) and how she sees herself as more objective now. Student 14 also had a negative experience with a church, which she explained as follows: My past experience with religion played a major role in my spirituality as well and was the experience which pushed me away from religion and a dependence on people, and drove me towards a dependence on nature...This very experience has been a topic of one of my practicals, and was the seed of my current topic – the control of people through the

construction of religion.

Students should be free to reject superstitious and religious beliefs and rituals on a personal level. However, they should not devalue others' beliefs and rituals or prevent them from practising their beliefs and rituals. The appreciation of diverse worldviews is important - where each student can choose her beliefs without fear of oppression and ridicule.

Conclusion

According to Malcolm and Alant (2004), students respond positively when their beliefs are admitted in educational contexts. Differences in beliefs and rituals surfaced in the conversations with students. What are we doing practically with difference; are we accepting each other's differences? Or are we trying to find a place where we can agree on basic values and norms?

In the Critical Citizenship module, the concepts of tolerance, diversity, democracy, human rights and social justice are emphasised, but what does tolerance for diversity mean in practice? How do we handle issues such as in the case of Student 15 who referred to the learner who told about her mother's face being cut open to release bad spirits and Student 13 who missed lectures due to a fear of the presence of owls?

Are evil spirits, miracles and good luck testable in research? If considered as pre-modern, it could suggest that these beliefs are primitive. This could then be seen as discriminatory towards people who practise such beliefs. Becoming aware of these sensitivities in critical citizenship education is crucial for lecturers. Separating beliefs and rituals from critical citizenship education would not always be possible and this is an area that we believe requires further in-depth research within a Critical Citizenship Educational environment. Because of the sensitivity of issues such as belief and rituals, discussing it critically is often avoided and therefore hardly ever shared in conversations in the higher education context. A colleague who assisted in analysing the data mentioned that students could feel guilty because, even though many of them convert to Christianity, they often go back to their ancestral beliefs when in need. Students could, for instance, feel that they reveal their differences when talking about their superstitious and religious beliefs and rituals. Stellenbosch University describes the institution's values as promoting "human dignity through a culture and behaviour that are respectful – self-respect, respect for other people, and respect for the physical environment" (Stellenbosch University 2015: 8). It continues by saying that respect and tolerance for differences would create a suitable environment for teaching, learning and research (Stellenbosch University, 2015). In an art and design environment, difference is crucial for creativity and for that reason we will always encourage various cultures and ideas to interact.

However, there is also an emotional aspect to difference

that stems from the segregated and unequal past that interferes with a spontaneous creative interaction.

Therefore, Critical Citizenship Education in a multicultural society in South Africa should take into consideration the socio-political, historical and cultural contexts, and address ethnicity, race, culture, class, gender and sexuality in relation to issues such as discrimination, social justice and power relations. Students' superstitious and religious beliefs and rituals form part of their worldviews and should also be addressed. Previously devalued beliefs such as African indigenous religion should be discussed in a respectful manner. Towards this goal, students and lecturers could foster an accepting view of differing beliefs and rituals. The unifying goal for critical citizenship education is to create a socially just education system for diverse students through social transformation (Phillion, 2010). There are few guidelines to aid higher education practitioners in reaching this goal. We suggest a balance between knowledge-centred and student-centred approaches to education, an increase in knowledge of students' cultures and languages, application of critical citizenship practices and empathy for diversity. A socially just presentation of knowledge together with social transformation is key to the process of decolonising the curriculum in higher educational contexts. We realise that facilitating the critical citizenship projects in practice and treating differences among participants equally could be complex because of our own limited knowledge and limited experience of other beliefs and rituals. We recognise that, even though we take on a post-colonial perspective and incorporate BCI authors in our literature, our research is a translation of the lived experiences of black students through our own white gaze (Mignolo, 2009). The exploration of superstitious and religious beliefs and rituals in higher educational institutions by BCI researchers and/or in educational contexts where BCI students are in the majority, may yield different findings and may serve the decolonisation project better than our attempts.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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Full Length Research Paper

The psycho-social context of Lake Ziway/Dembel: Oromia Regional state, Ethiopia

Aschale Kassie Haile* and Esmael Seid

¹Department of Sociology, College of Social Sciences and Humanities/Wolkite University, Ethiopia.

²Department of Psychology, College of Education and Behavioral Sciences/Wolkite University, Ethiopia.

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The general purpose of this study was to organize psycho-social information pertaining to some issues. These include: Local peoples' awareness and perception of risk of ecological problems associated with Lake Ziway/Dembel; the issues of community participation and mobilization in resource conservation, preservation and sustainable use; psycho-social consequences of the adverse climatic happenings in the lake area; and impacts of eco-systemic changes of the Lake on local livelihoods. Besides, this study was undertaken so as to suggest further research and facilitate academic discussion, thereby contributing for national environmental policy consideration and mechanisms of intervention. The main tools of primary data collection used in this study include; in-depth interviews, Focus Group Discussions, direct observations and questionnaire. Questionnaire items were administered to members of the local community with varying socio-demographic composition, teachers and high school students and local governmental officials. The results indicated that people as well as other stakeholders in the Lake area are familiar with eco-systemic changes involving the Lake. This indicates that there is an already existing perception of the risk on behalf the community in Lake Ziway area. It was possible to infer that people who have based their livelihood on the Lake are in a vulnerable context. The study indicates that there are some psycho-social impacts of the environmental troubles associated with Ziway/Dembel lake.

Key words: Lake Ziway/Dembel, Risk perception, local community, sustainable utilization, conservation, psycho-social impacts, community mobilization, participation.

INTRODUCTION

Addressing climate change is arguably one of the most pressing tasks facing our planet and its inhabitants. The Inter-governmental Panel on Climate Change (IPCC, 2007) defined climate change as "any change in climate over time, whether due to natural variability or as a result of human activity." More broadly, climate change refers to changes in atmosphere (gaseous envelope surrounding

the earth), hydrosphere (water on the surface of the earth), cryosphere (snow, ice, and permafrost on and beneath the surface of the earth and ocean), land surface, and biosphere (ecosystems and organisms living in the atmosphere, land, and oceans) etc. What is unique about the current global climate change, as relative to historical changes, as asserted by APA (2009) is the

*Corresponding author. E-mail: aschale.kassie@wku.edu.et.

causal role of human activity (also called anthropogenic forcing) and the current and projected dramatic changes in climate across the globe. According to McMichael (2003), the long-term good health of populations depends on the continued stability and functioning of the biosphere's ecological and physical systems, often referred to as life-support systems. Lake Ziway is one of the four large lakes found in Ethiopian Central Rift Valley (CRV). The Ethiopian central rift valley is part of the East African Rift, an active continental rift zone, which goes along East Africa from the Red Sea to Mozambique. The CRV is situated in the administrative regions of Oromia and the Southern Nations Nationalities and Peoples Region (SNNPR), and covers an area of approximately 10,000 km². The area encompasses a chain of four large lakes (Ziway, Langano, Abyata and Shala) and streams that are spatially and temporally strongly interlinked (Ferrer et al., 2008). The Rift Valley is one of the environmentally very vulnerable areas in Ethiopia. The lakes are highly productive, harboring an indigenous population of edible fish and support a wide variety of other aquatic and wild life. They are globally significant freshwater ecosystems containing important areas of both terrestrial and aquatic biological diversity, and most are becoming degraded as a result of human activities (Lake Ziway and their influent rivers are used for irrigation, flower industry, soda abstraction, fish farming, domestic use and recreation) (Ayenew, 2004; 2007). Lake Ziway has long been used as source of town's water supply, small scale irrigation, bathing, animal watering, domestic water use, fishery and eco-tourism. There is a lot of deliberation about floriculture industries located at the shore discharging untreated effluent directly into the lake; as a result excessive fertilizer and pesticide residue from the farm is deteriorating the water quality as well as the aquatic life (Malefia, 2009). Urbanization, industry, agriculture, and deforestation are the major anthropogenic drivers of many more specific processes and outputs which degrade lake water quality in Ethiopia. Degraded lakes have numerous social, economic, and ecological impacts. Poverty and underdevelopment in Ethiopia underlie the anthropogenic forces that degrade lakes (Graichen, 2011).

The risk literature has widely studied individual sources of threat perception. There are two main classical theories used for explanation of perceived risk: the psychometric paradigm and cultural theory (Sjoberg 2004, Sjoberg et al. 2004). The psychometric explanation, drawing on cognitive psychology, was developed by Fischhoff et al. (1978). The basic assumption of this approach is that threats and risks are in reality interpreted or perceived by individuals. In other words, individual threats are considered to be stimuli to which individuals respond (Slovic, 1987 as cited in Kateřina (2012); Sjoberg, 2000; Sjoberg et al., 2004). The psychometric model proposed by Fischhoff (1984) addressed how human risk perception is significantly

influenced by the physical properties of risks (voluntariness, familiarity, and catastrophic consequences), as well as psychological and cognitive factors (dread, experience, benefits associated with the risks, controllability, and knowledge). Based on this perspective, various characteristics of the possible threats and risks are considered to be the principal factors determining how much people feel threatened or at risk. The second theory that belongs to the basic explanatory framework of risk perception is the so-called cultural theory. Unlike the psychometric paradigm that looks at characteristics of risks themselves, the cultural theory focuses on individual attitudes and values that can influence the levels of perceived risk (Sjöberg, 2003; Peters and Slovic, 1996). The cultural perspective was introduced into the risk perception literature by Douglas et al. (1982). According to this perspective, the perception of risk is driven by more general attitudes towards the world around us. Culturalists assume that people have specific worldviews that determine their interpretations of the surrounding world. In contrast to the psychometric theory, possible risks and hazards are not expected to influence individual attitudes directly but through interpretative schemata (Peters and Slovic, 1996). Especially relevant to the explanatory potential in cross-individual research is that people naturally differ in their worldviews. Early risk perception research centered on the idea of a 'knowledge gap' between the public and the experts (Hilgartner, 1990; Wynne et al., 1996 as cited in SCU, 2014). It was assumed that if the public could access and understand all the facts of a situation, their ideas about risk would tend to match those of the experts (Hansen et al., 2004; Touili et al., 2014). However, this idea has been dismissed and researchers now recognize that knowledge is by no means the only factor determining perceptions of risk (Touili et al., 2014; Renn and Rohrman, 2000). Rather, risk perception is a complex product of innate biases (as discussed in the above Section) as well as social, cultural, political and emotional factors (Touili et al., 2014; Renn and Rohrman, 2000). The third approach is the interdisciplinary paradigm that applies several concepts to explain risk perception. Its most distinct concept is Kasperson's social amplification of risk framework (1988), a systematic conceptualization of how scientific risk is influenced by psychological, social, institutional, and cultural processes. This model explains two processes associated with risk perception: first, risk perception is affected by a variety of social processes such as social institutions' roles in communicating risk-related information, a range of communication channels existing in societies, institutional behaviors, and sociopolitical processes; second, risk messages are interpreted and perceived by individuals or society as a whole.

Drawing on the above ideas, the environmental tribulations posed on to Ziway/Dembel Lake are multifaceted and complicated that dictate the involvement

of various bodies including, local communities, researchers, GOs and NGOs and other environmentalists. Any effort to preserve or conserve commonly owned resources should give due emphasis to the basic social fabric of the concerned social group to bring significant interventional outcome. This has to begin from researching the nature, causes and consequences of the issue that have to do with the social, behavioral and cultural life of any social system. The local people (community) should be the primary sources of information for they know their surrounding environment for long; and local wisdoms of resource conservation and preservation should be thoroughly identified. Local peoples' perception and awareness towards natural resource management and environmental risk have to be seriously studied. Understanding the differences in the risk judgments of residents of industrial communities potentially provides insights into how to develop appropriate risk communication strategies. The causes determining laypersons risk judgments and perceptions need to be thoroughly studied in order to create effective risk communication between governments and the public. Comprehending laypersons fundamental understanding of risk-related judgment can help risk communicators achieve the following: effectively establish communication efforts, properly select pieces of information and their formats, and foster information sharing among relevant parties (Janmaimool and Watanabe, 2014). Governments mostly make decisions regarding the development of industrial activities based on experts' scientifically estimated risks; however, local residents' risk judgments are not well understood or considered. As a result, industries have been growing despite public protests. Local people should have the circumstances through which they can improve their own knowledge and awareness regarding the actual and potential dangers and consequences of environmental problems. This can be realized through awareness creation educations, experience sharing and other means of communicating information such as the mass media. Members of the public are often presented with a large amount of information on a topic that concerns them and require some way of weighing up that information if they want to reach a conclusion about relevant risks. In general, the public relies on what are called 'intuitive heuristics' or - more commonly - rules of thumb (Science Communication Unit, 2014). The other key issue in natural resource conservation and preservation is that of community mobilization. Beyond contributing in problem identification and search for mitigating way outs, the local people can also play an important role through the accumulated local wisdoms and skills and man power.

MATERIALS AND METHODS

Exploratory study design was employed since the purpose of the study was to explore the knowledge and perception of local

residents in and near Ziway/Batu town regarding the prevailing climatic problems associated with the lake, psycho-social impacts of the problem, the participation of local people in contributing for mitigating the problem, and exploring the impacts of the problem on local livelihoods. Mixed research approach (that is both qualitative and quantitative approaches) was utilized in generating relevant data to meet the goal of this preliminary/ baseline study. The main tools of primary data collection used in this preliminary study include; in-depth interviews, Focus Group Discussions, direct observation and questionnaire. Interviews (both telephone interview and face-face interview) with members of the local residents around Lake Ziway/Dembel have been conducted. Eight FGDs were conducted in the data collection process. The focus groups comprise teachers, members of local people and local government authorities. In-depth interviews were conducted with local government officials, community leaders, and environment protection and conservation experts in the study area and health professionals. There was also systematic observation of fishing activities, local transportation service provision activities, the lake itself and damage caused by human interventions, and Meki River (tributary to the lake). Three hundred questionnaire items (later used to triangulate qualitative data) were filled out by members of the local community with varying socio-demographic composition, teachers and high school students and local governmental office holders. The questionnaire were used to address risk perception, opinion of the local community members on the future status of the lake, psychological impacts of lake damage on the local community members, endangerment of local livelihoods, people's sense of ownership and efforts made to mitigate the crisis. Besides primary data, secondary was also thoroughly reviewed in compiling this report. Quantitative and qualitative data were triangulated to build up a fully rounded analysis. Microsoft Excel was used for data entry and storage before importing to the Statistical Packages for Social Science (SPSS Version: 23.00) for generating quantitative data while qualitative data was thematically analyzed. Qualitative information generated using qualitative data collection tools, is analyzed manually by carefully recording, transcribing, organizing, and summarizing in to written form. Since the discussions and interviews were made in the local language (Amharic and Afan Oromo), the information collected was directly translated to English by the researchers.

RESULTS AND DISCUSSION

Risk perception of the surrounding community on biodiversity changes involving lake Ziway/Dembel

Awareness

A total of four measures (question items) were used to create a holistic assessment of risk perception, covering knowledge and /or awareness dimension. As presented in Table 1, respondents were asked whether they have heard of any biodiversity change around the lake. Majority (66%) of our respondents reported to have some information and the rest (33%) respondents have never noticed and heard of any deterioration and decrements on the lake status for the past 12 months. Similarly, according to the data obtained, 70% of them are certain that there are changes on the lake status while only (30%) were not certain to any changes in water quantity, salt level, catchment size, fish variety and quantity level

Table 1. Respondent's knowledge/awareness regarding the impact of climate change on the lake.

Knowledge /Awareness and Risk	Responses	Frequency	Percentage
Have you received any information about the situation in the Lake in the last 12 months (water quantity loss, diminishing fish species, salt level, catchment decrease, recurrent weed invasions)?	Yes	200	66
	No	100	33.3
	Total	300	100
I am uncertain that any change is really happening to the lake	Yes	90	30
	No	210	70
	Total	300	100
The lake water is more polluted now than ever before.	Yes	300	100
	No	--	--
	Total	300	100
The lake environment is a source of health problems for the surrounding community	Yes	260	86.7
	No	40	13.3
	Total	300	100

among others on the lake. However, when it comes to specifically judging whether or not the lake water is polluted than ever before, all of the respondents seems to be aware of it and rated the lake water as polluted than ever before the past. Moreover, almost 87% of our baseline respondents felt that the lake environment is a threat to their feature health and wel -being.

Similar risk perception appraisal opinions were also reflected from local farmers and fishers participated in many FGDs. Most of the local residents in *Grissa* village near *Meki* town generally appear to be largely aware and familiar with the many changes and risks posed on the general and to their livelihood in particular. As reflected by FGD participants, they are being affected directly or indirectly by the gradual deterioration of the lake status. In order to engage people in a successful climate adaptation and successful natural resource conservation efforts, understanding public perceptions of climate change risks, is a prerequisite. Scholars like Biswas et al. (2004); Gebremariam, 1998 as cited in Graichen, 2011) asserted that continued education and awareness raising among the society are imperative for successful and strong collaborative actions needed for the water shade management of lake Ziway/Dembel.

Perceived behavioral control

Regarding the degree of perceived control of the problem, a clear majority 240 (84%) of respondents perceive most of the lake water and aquatic species changes occurring on the lake are not controllable. Only 60 (20%) of participants in this study responded “yes” to the item which was asked to determine their opinion whether such eco-systemic changes around the lake are controllable or not. Additionally, around 68% of participants were found to be skeptic about their individual contribution and capability on the possibility of

bringing any positive change on the lake and solving its problem. However, some respondents up held affirmatively on individual role as a having significant contribution to any mitigation effort aimed at reversing the lake status.

Similar views were found among FGD participants in *Dugda-grisa* village regarding the item which instigates perceived behavioral control of the problems associated with the lake on behalf of local people. Farmers and local elders in in-depth interviews and FGDs raised their uncertainty about whether the ecosytemic problem on lake Ziway could be solved or not (Table 2).

Perception of vulnerability

Study participants were asked to indicate their view on which they believe are more victims because of the future danger posed on the lake. Opinions seem shared as about 80% of respondents responded that each and every segment of the population in Ziway/Batu town and the surrounding areas is vulnerable. Contrary to this, 17% of them felt that farmers and local fishers are more victims (Table 3).

Psycho-social and economic impacts of the Lake's damage on the surrounding communities

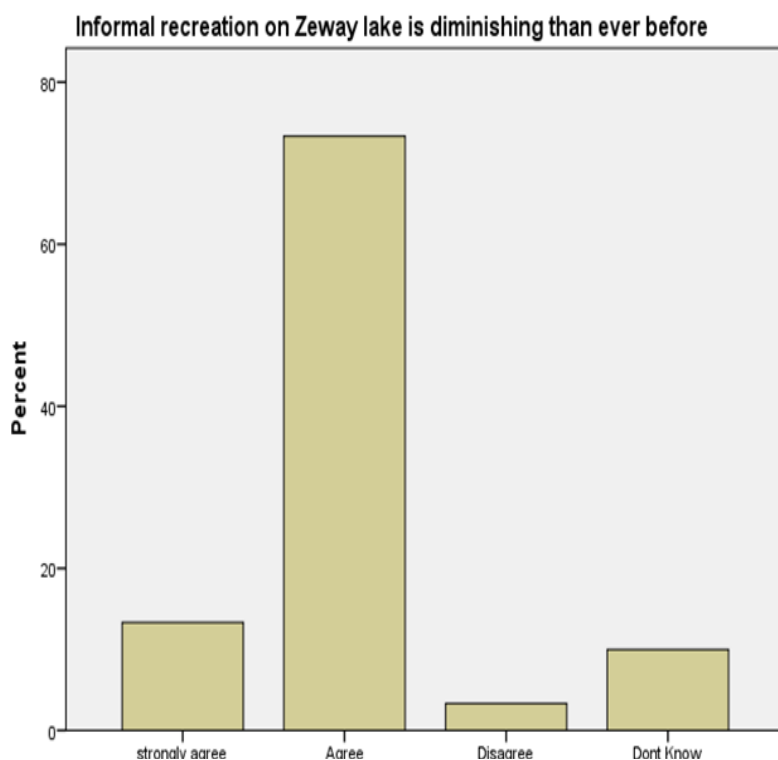
It is obvious that degraded lakes have numerous psycho-social, economic, and ecological impacts on people who have based their lives on the lake in one or another way. Poverty and underdevelopment in Ethiopia underlie the anthropogenic forces that degrade lakes (Graichen, 2011). Psycho-social impacts related to the eco-systemic changes around the lake were measured using seven items with a 5-point rating scale. Respondent were asked to rate their personal inclination with each question using

Table 2. Respondents perceived behavioral control regarding reversibility the lake's status.

Perceived behavioral control	Responses	Frequency	Percentage
In your opinion, can such eco-systemic change around the lake be controlled?	Yes	240	80
	No	60	20
	Total	300	100
I personally feel that I can make a difference with regard to reversing the problems on lake Ziway	Yes	100	33.3
	No	200	67.7
	Total	300	100

Table 3. Respondents perception of vulnerability.

Vulnerability	Frequency	Percentage	
In your opinion, who is more vulnerable because of the problems in lake Ziway/Dembel?	Anybody in the town	240	80.0
	only those around the lake such as local fishers, farmers	50	16.7
	Horticulture investment owners	10	3.3
	Total	300	100.0

**Figure 1.** Respondent's level of agreement on whether or not informal recreational activities on the lake has been diminishing or not.

“strongly agree”, “agree”, “disagree”, “strongly disagree” and “don't know”. According to the data, almost 74% of the participants reported the diminishing of informal recreational activities on the lake than ever before. As depicted on the Figure 1, still another majority, 13% responded with a strong agreement on the item. Small

proportion of participants 3.3 % expressed their disagreement with the item that was concerned on evaluating whether informal recreational activities on the lake is declining than it was before. This finding is consistent with past studies on the area, as stated by Malefia (2009) lake Ziway has long been used as source

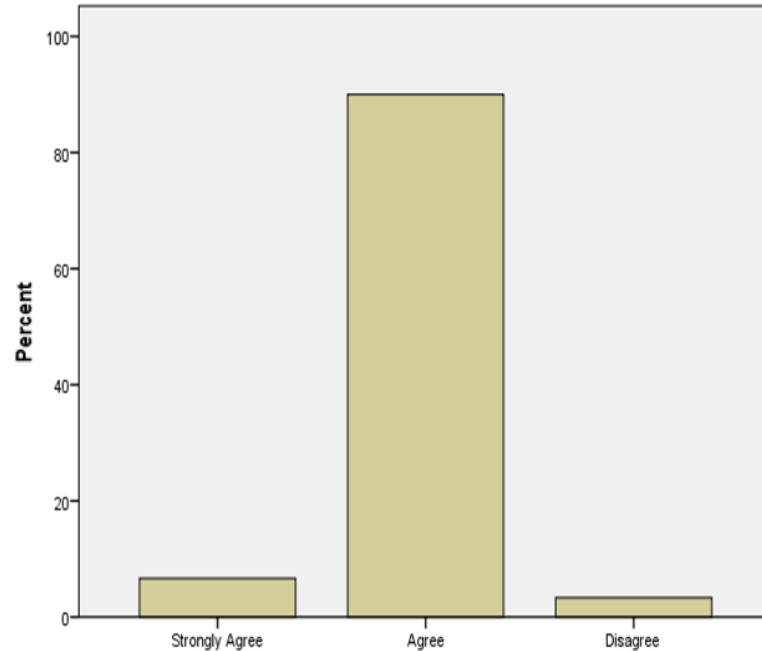


Figure 2. Respondents level of agreement on whether or not people in the local community are anxious because of the gradual decline of the lake.

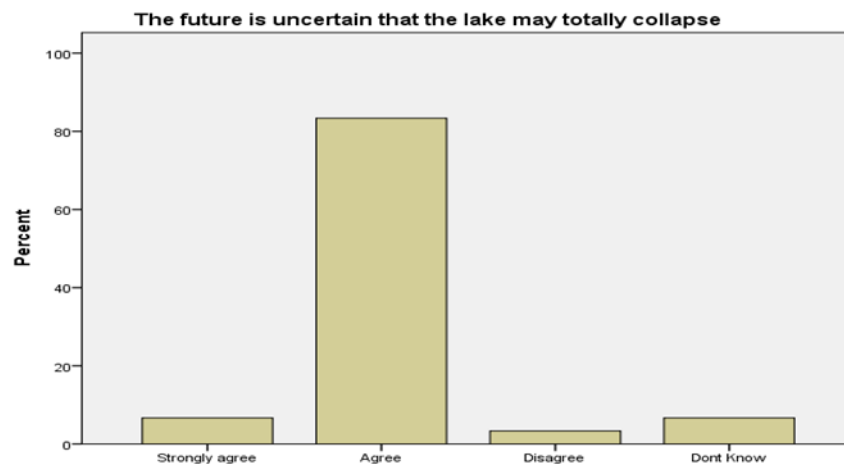


Figure 3. Respondents opinion on the future status of the lake.

of recreational activities such as bathing, fishery and eco-tourism. However, there is a lot of deliberation about floriculture industries located at the shore discharging untreated effluent directly in to the lake; as a result excessive fertilizer and pesticide residue from the farm is deteriorating the water quality as well as the aquatic life.

When respondents asked about whether or not they are anxious because of the gradual deterioration of the lake status, a high percentage (90%) of them expressed their agreement, while another 6.7% of them rated the item with “a strong agreement”. Only one respondents in

this base line study reported their “disagreement” stance (Figure 2).

Respondents were also asked to give their opinion on what will be the status of the lake in future. A high percentage of respondents (83.3%) stated their agreement that they are uncertain on the futurity of the lake and feel it may gradually collapse. Also, 6.7% of them expressed their strong agreement on the item. However, (6.7%) of respondents does not seem pessimistic about the future status of the lake (Figure 3).

The other item on this category aimed at assessing

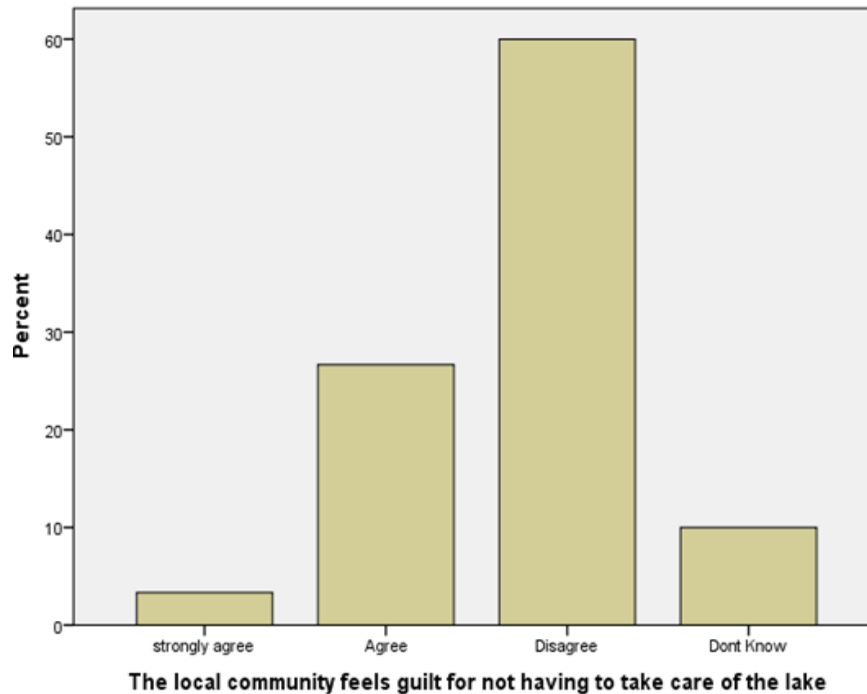


Figure 4. Respondents' opinion on whether or not the local community feels guilty for causing damage on the lake.

local people sense of guilt for not having care for the lake. The highest percentage (60%) of them expressed their "disagreement" while another majority, (26.7%) of them expressed their "agreement" and "strong agreement" stance on the item. However, 10% of them said they "do not know" whether the local people is feeling guilty or not for not having to care of the lake (Figure 4).

As stated by Reuveny (2008), diminishing resources set the stage for inter-group conflict, either when two groups directly compete for the remaining natural resources, or when ecological degradation forces one group to migrate out of its own territory and become an immigrant into another group's territory. This small base line snap short also found that there are some conflicts emerging due to increased demand on the lake. Among our participants, 17 and 13% of them said "strongly agree" and "agree" respectively on the item which inquires whether or not conflicts are emerging due to increased demands on the lake. However, another majority 57% of the respondents said to have no information on the issue. Lastly, only one respondent mentioned their disagreement on the item.

Similarly, people were also asked to expressed to rate their opinion on the level and degree of inter community conflicts perpetrated by increased pressure on the scarce resources of the lake .accordingly, 20 and 16.7% of them said "strongly agree, and " agree" on the item. Of the respondents, majority 60% of them expressed that they don't have information in this regard. Only 3% of

them stated their disagreement on the rise of inter-community conflicts on scarce resources on the lake (Figure 5).

Lastly, respondents were also asked to give their opinion on whether or not local people sense of ownership is declining or not due to the expansion of investment on the lake (Figure 6). Accordingly, a high percentage (73.3 and 13.3%) of them said, "agree "and "strongly agree" respectively. However, 10% of the respondents stated their disagreement.

Impact on local livelihoods

To assess the impact of deteriorating lake on local livelihoods such as informal fishing and transportation, the above question have been asked both in the form of an item in a survey questionnaire and in a focus group discussion. As the survey response shows in the table above, majority of the respondents (76.7%, 230 in number) have chosen "agree" asserting that local livelihoods are being negatively affected as a result of environmental problems associated with the Lake (Table 4).

In addition to the above information presented in the form of table, FGD data indicates that there are some adverse effects of eco-systemic changes in Lake Ziway on the fishing activities in *Giressa* village, near *Meki* town in *Dugda* woreda. Following is narration of ideas

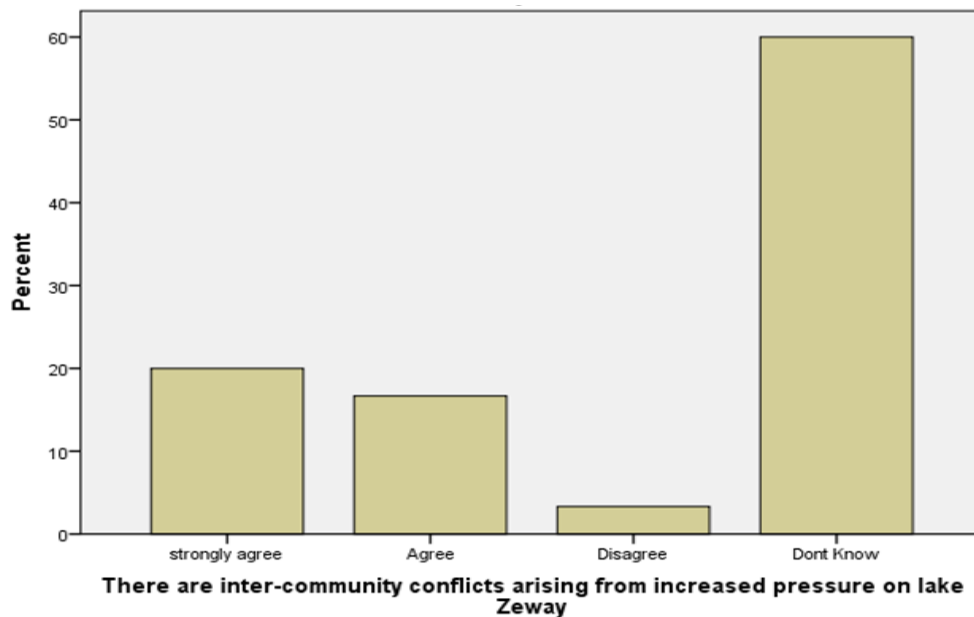


Figure 5. Respondents response on inter-community conflicts.

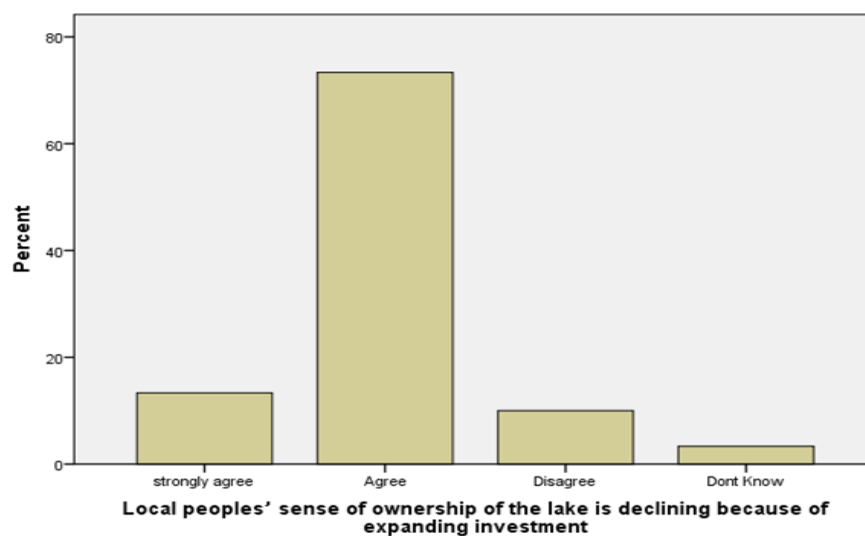


Figure 6. Respondents' answer on their own sense of ownership level because of expanding investment on and around the lake

Table 4. Impact on Local Livelihoods.

Impact on local livelihoods	Responses	Frequency	Percentage
Livelihood activities such as informal fishery and transportation are being affected because the shrinking of the lake and organized investment	Strongly agree	30	10.0
	Agree	230	76.7
	Disagree	30	10.0
	Strongly disagree	--	---
	Do not know	10	3.3
	Total	300	100.0

Table 5. Mitigation efforts and community participation in the conservation and preservation of the lake.

Mitigation efforts and community participation	Responses	Frequency	Percentage
Are there efforts you made to contribute to mitigating the problems happening to Ziway Lake	Yes	120	40.0
	No	180	60.0
	Total	300	100
Are there mechanisms undertaken to make the 'local community' involve in natural resource conservation and preservation?	Yes	110	36.7
	No	190	63.3
	Total	300	100
Was there due consideration of local community's needs and priorities in the establishment process of investment such as flower farm, recreational facilities and so on?	Yes	100	33.3
	No	200	66.7
	Total	300	100

forwarded by one of the FDG participants in the same village; the speech was made in Amharic and it is directly translated English.

I think that the volume of water in Meki river starts declining since the 1960's E.C. However, it is since 2007. that the river's water volume is declining highly to the level of absence especially, during December to May. This problem is partly caused by some irrigational activities that were dependent on the river near Butajira town.

Another participant in the same Focus Group highlights the current situation of local fishing compared to the past times as in his speech presented as follows.

Currently it is becoming very difficult to obtain a good amount of fish within a single catch attempt. Before years, it was simple to collect up to 2000 fishes in a single trial, however, these days it is even becoming difficult to grab 100 fishes in a single catch. Therefore, the fish quantity in the lake is diminishing than ever before, and this adversely affects us since our livelihood is considerably supported by fishery.

Mitigation efforts and community participation in resource conservation, preservation and sustainable utilization

This study, assess some interrelated issues such as mitigation efforts, participation of local community in sustainable use of the Ziway Lake through both survey of purposively selected 300 respondents from different sectors and Focus Group Discussions (Table 5).

In one of the question items, respondents were asked whether different stake holders have made efforts to contribute to the conservation of Lake Ziway. 12 respondents (40%) responded "Yes" while 60% of them responded "No". This data makes it difficult to conclude that there are no efforts since a considerable percentage

of the respondents admitted through their responses that there are efforts made by different bodies to contribute to mitigating the problems happening to Ziway Lake. This claim can best be triangulated by focus group qualitative data by the based a speech by one of FGD participants narrated as follows.

There are some efforts made by the local government of Batu town in order to contribute to solving lake pollution. This effort comprises "Share Ethiopia" and "Horn of Africa", which involves such activities as solid waste management and/ or avoidance solid waste material from the lake surrounding. Besides, trainings were given to dwellers of Batu town on mechanisms of managing solid waste material with the aim of creating awareness on the danger of lake pollution by waste materials produced by hotels, residents and so forth. However, these efforts did not meet the desired goal for they were not sufficient mechanisms and there is a gap in strict supervision of different bodies such as floriculture industries, other business organizations and residents.

There is limited achievement made so far in mitigating the problems associated with the Lake despite the involvement of different governmental and non-governmental organizations and the local community. The baseline information shows that there is urgency for highly coordinated multi-sectoral involvement and integration. Out of the survey respondents who were asked whether there are some mechanisms of engaging the local community (residents of Batu town and people living in the surrounding area) in resource conservation and preservation especially Lake Ziway, (36.7%) responded "yes" and the remaining (63.3%) answered "no". The considerable numbers of respondents who have replied "no", to the question oblige us to reconsider the issue and we (researchers) have tried to supplement this data with some FGDs. Following is a narration.

There are some mechanisms by which people can contribute to reduce Lake Water pollution, of which one is

waste material management. Business organizations are responsible to clean manage waste materials up to 50 meters radius, while individual households are responsible to do so up to 20 meters radius. However, there is a huge gap in practice.

Another FGD participant also raised the following:

We have participated to eliminate the newly emerged and invasive weed. Other than this, we did not have made such a strong effort to preserve or conserve this lake. There are no awareness creation and training endeavors made by local government offices.

Regarding the question raised concerning due consideration of local community's needs and priorities in the establishment process of investment such as flower farm, recreational facilities and so on, (66.7 %) majority of the respondents answered "no", while the remaining 33.3% replied "yes". This data once again calls for further investigation and due consideration. From focus group discussions, it was possible to understand that there are some gaps between the local community and owners of investment. Actually, in most cases, local interests and priorities do not coincide with global or national ones. Here, it is good to present a speech made by a focus group discussant.

There is poor awareness and consideration for the Lake on behalf of investment companies. They pollute the lake by their chemical residue. Most of us think that the lake is already poisoned, therefore pregnant women are not recommend using the lake water. There is a gossip that these companies use pesticides and insecticides that are not allowed by the government. In fact there are some works being made by these investment companies to an attempt to contribute to reducing adverse impacts on the lake. One example for this is, water recycling. For these and other reasons, even some people in Batu area do not prefer to be hired in the companies.

From focus group discussions, it was possible to understand that there are some gaps between the local community and owners of investment. Actually, in most cases, local interests and priorities do not coincide with global or national ones. However, some efforts have to be done to create integration of local and national interest even if one may argue that national agendas incorporate local ones. In cases where local communities don't have strong sense of belongingness for natural resources, investment activities or any other project, it is very difficult to realize sustainability. There for, a more pro-environmental behavior and attitude is expected from companies that are utilizing the water in Lake Ziway.

Conclusion

Generally, people as well as other stakeholders were

found to be familiar with most of the eco-systemic changes around the lake. However, the understanding of these changes, its causes and perceived sense of behavioral control in improving the situation varied widely among them. This was evident when FGD participants as well as key informants in Meki town blamed ('absence of rainfall, 'Nature' or 'God') indicating lack of proper understanding among the people from all spheres of society. Moreover, majority of the respondents in the survey also seem to be in doubt and skeptic about their individual contribution and the possibility of bringing any change on the lake and solving its problem. Irrespective of the level of understanding of biodiversity change around the lake, the current snapshot study found a high level of awareness about the current vulnerable status of the lake; huge decrements and irregularity of water quantity, fish diversity, catchment decrease, perceived presence of chemical hazards and pollutants in the lake which they describe them as a threat for health. During the FGDs, participants also talked about human and industrial ('flower farming') activities near Ziway town as responsible for the frequent deterioration of the lake status and the overall environmental and water pollution on the lake. A large majority of the respondents also feel that there will be a collateral damage for all member of the population if situations on the lake persist in this way. Common threats to scarce water and natural resources may bring common and interrelated psycho-social and economic impacts that may be cyclical and complex in nature. This baseline study also illustrated the psycho-social and economic impact of the degraded current status of the lake. It has been noted that lake Ziway has long been used as source of recreational activities such as bathing, fishery and eco-tourism. However, as the analysis in this report showed, there exist diminishing of informal recreational activities on the lake than ever before. Such adverse changes in the lake status on many dimensions also make the local communities anxious and totally worried to the extent that they feel that it may gradually collapse. Respondents in the current baseline study also revealed that local people sense of ownership is declining due to the huge expansion of investments and irrigation activities on the lake and its adverse impacts. Although it is minimal, this small base line snapshot also found that there are some conflicts emerging due to increased demand on the lake. In addition to the above psycho-social impacts, as the lake has been the source of agricultural, fisher and drinking water, the many changes occurring in the water volume of the lake affected the local people livelihood. This base line report provide indicative information on current changes on the fishing activities of local fishers, as both local residents and government officials asserted, fish production in the lake was greatly decreased which in turn adversely affect local peoples economic livelihood. Despite some mitigation efforts made by local government and other stakeholders such as Share Ethiopia, Horn Africa and the

local community, the analysis indicated there is limited achievement. The local people also described their participation on occasional conservation activities on the lake by taking part on removing the recent weed invasion on the lake and waste management. The baseline study has also indicated that local people feel that the existing investment expansion around the lake is a threat to the sustainable use of the resources as these companies use chemicals that are considered to be hazardous in nature. Lastly, the study also depicted the absence of participatory, multi-sectoral and integrated planning, intervention in natural resource conservation, preservation and sustainable utilization.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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