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# Identity creation through words: metaphors and figurative language in web-based learning environments

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## Abstract

The use of figurative language is known to serve many purposes: cognitive, affective, and social. We employ metaphors, metonyms, similes and other figures of speech in interacting with each other all the time, and in doing so we further our communicative goals, facilitate our reasoning, and build a shared representation of the social world. What deserves major attention is the role that metaphors and figurative language may play in virtual learning environments based on written discourse. This paper explores the value of written communication enriched with the spontaneous use of figurative language and the activation of spatial metaphors in a web-based learning experience for adult learners. Results show that figurative language is effective in expressing the affective domain and building a common identity, as well as in giving concreteness and familiarity to the immateriality of virtual spaces.

**Keywords:** metaphor; identity; social presence; computer mediated communication; learning

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## Introduction

The research framework of Computer-Supported Collaborative Learning (CSCL) has emphasized the role that a well-established social dimension plays in collaborative learning and group-based work (Koschmann, 1996; Stahl, 2002). Learning is a by-product of a social dialogical process where individuals are collectively engaged in the creation of new knowledge and involves a deepening process of participation in a community (Scardamalia & Bereiter, 1994). Being part of a group means building a common and shared identity with the other members. Indeed, participation especially implies the reorganization of individual identities and the construction of a collective and shared identity within the community (Wenger, 1998).

In virtual communities, group identity is constructed and maintained through online discourse. Computer-mediated discourse may take a variety of forms (e.g., e-mail, discussion groups, real-time chat, virtual reality role-playing games), but characteristic to all is that linguistic properties vary depending on the kind of messaging system used and the social and cultural context embedding particular instances of use (Herring, 2001).

Although early research considered Computer-Mediated Communication (CMC) to be an impoverished means of communication that lacks nonverbal cues (e.g., facial expression, posture, gesture, proximity) and limited the richness and scope of communication in such settings (Rice, 1993), more recent studies show that it is possible to stimulate social and affective presence with written communication alone provided that interlocutors are allowed to manage their time freely (Jacobson, 1999). Users compensate for the limitations of written discourse with linguistic inventions and adaptations (e.g., emoticons, capital letters, ellipses, exclamation marks) in order to express with appropriate orthographical and typographical strategies aspects of nonverbal communication (Crystal, 2001). In this way, users can not only incorporate a higher degree of familiarity and intimacy in content, style, structures, and timing of the exchanged postings through colloquial and informal registers, but also strike a balance between the features of the medium and an acceptable level of immediacy (Danchak, Walther, & Swan, 2001).

Hence, if we assume that participants are able to express their emotional and affective horizons through written discourse, it is important to understand how a shared community identity may be revealed and analyzed. Among the criteria through which a community can be identified (Herring, 2004), two specifically relate to identity: 1) shared history, purpose, culture, norms and values; and 2) self-awareness of group as an entity distinct from other groups. Each of these dimensions may be broken down into component behaviours that can be objectively assessed. For instance, *culture* may be indexed through the use of group-specific abbreviations, jargon and language routines; *group self-awareness* can be manifested in its members' references to the group as a group and in «us versus them» language. From this perspective, it is possible to examine, for example, how participants in a community of practice express a shared group identity in their discussions on the basis of the use and frequency of singular and plural first person pronouns (Job-Sluder & Barab, 2004).

Additionally, narrative is being recognized as one of the most promising and emerging areas of interest in digital learning environments (Dettori, Giannetti, Paiva, & Vaz, 2006). Narrative has been shown to be a powerful cognitive tool for construction of meaning by organizing external knowledge representation and as a way to structure human experience. Storytelling, as a means through which people may communicate their emotions and feelings, is strictly intertwined with those aspects of learning related to motivation, engagement, social interaction, and personal meaningfulness. In CMC learning contexts, the use of narratives can improve the social dimension of online learners and contribute to collaborative learning through the sharing of personal experiences and the construction of a common identity. A narrative pedagogy thus goes beyond the information dimension of learning and renders apparent the social basis of learning and knowledge (Ritchie & Peters, 2001).

Among the linguistic artefacts that may facilitate the expression of emotions and affective domain in web-based learning environments are metaphors and other figurative language. Studies in this field show that these features may be effective in giving substance and concreteness to the immateriality of the web, and in expressing and representing affective domain in a written-discourse based learning environment for adult

learners (De Simone, Lou, & Schmid, 2001; Delfino & Manca, 2007; Manca & Delfino, 2007).

The aim of this paper is to show how metaphors and figurative language may be seen as linguistic tools to conceptualize the learning environment in an original manner and, at the same time, to communicate emotions and social presence in a creative way through text.

In the following sections, the concept of metaphors and figurative language and their emotional and cognitive values will be introduced. Then, figurative language will be explored as a tool to be used to encourage interaction and identity construction in a web-based learning environment.

## **Metaphor and figurative language as conceptual and emotional tools for learning and socialising**

Since at least fourth century B.C., the theme of metaphor has raised the interest of poets and philosophers. Aristotle laid the foundation for the classical definition of metaphor as comparison between two words (or expressions) accomplished by the «carrying over of a word from its normal use to a new use» (Richards, 1929, p. 221). In *Poetics* and *Rhetoric*, Aristotle assigned to metaphors both a decorative function (for rhetorical purposes) and a cognitive function. The metaphorical relation implies a similarity, an analogy, and the ability to detect the likeness between things that generally appear different. By appreciating different identities, metaphors thus help to increase the sense of unexpected and stimulate the hermeneutic process. Metaphors can also convey liveliness, freshness, power to surprise and make the hearer acquire new ideas. Their importance resides in their adaptability, in the multiple ways in which they can be expressed and in the relations they establish between the speaker and the hearer.

In the last century various scientists took into account a variety of factors related to metaphors, in particular, and to figurative language in general: linguistic structures and related syntactic processes (Perelman & Olbrechts-Tyteca, 1969; Lausberg, 1998), pragmatic value (Grice, 1967; Searle, 1979; Weinrich, 1976), psychological and cognitive role (Gibbs & Steen, 1999; Glucksberg & Keysar, 1990), philosophical relevance (Ricoeur, 1978).



For the detractors, metaphors are mere and unnecessary embellishments, inadequate devices signalling the inability of a speaker to find the proper words, distortions of language, lies. For the supporters, on the contrary, metaphors are not only necessary, but they also represent a pervasive aspect of language and thought, a cognitive and epistemological tool which enables the speaker and the hearer to grasp unknown concepts, an affective and emotional device by which we can express what would be difficult to convey with literal language alone.

Literature in linguistics and cognitive science state that metaphoric language has a central role in everyday discourse because it shapes the ways in which we think, creates a bridge from abstract domains to perceptual experience and helps us to understand a new domain of experience in terms of what is already familiar (Katz, Cacciari, Gibbs, & Turner, 1998). To borrow a famous metaphor from Lakoff and Johnson (2003), figurative language is something «we live by». In their theory, known as the *conceptual metaphor theory* or *cognitive metaphor theory*, Lakoff and Johnson expressed the relation among the metaphorical elements in terms of conceptual domains, assuming that metaphors operate at a level of thinking, projecting the cognitive map of a source domain on a target domain, and directly carrying a structure from one conceptual domain to another.

At the same time, figurative language contributes to mutual participation in sense making and plays a central role as affective and emotional device in establishing a climate of intimacy between speakers. Emotional concepts emerge as social-cognitive constructions that are largely made up of metaphors (Kövecses, 2002).

Figurative language is special because it concerns emotional communication, which intimately reflects something about people's ordinary conceptualizations of their complex emotional experience. Concrete vividness in the expression of emotions is its main characteristic: intense emotions lead to a greater use of metaphor than mild emotions in the description of feelings, but not in the description of actions associated with intense emotions (Ortony & Fainsilber, 1989). Furthermore, it is a special communicative tool because it can emphasise the sense of closeness between speaker and hearer, allowing them to speak about their own emotions without being touched directly (Gibbs, Leggitt, & Turner,

2002). Moreover, figurative language and *imagery* heighten involvement because they require the listener (or reader) some additional cognitive effort to evoke scenes, to make sense of it and to engage in a mutual participation of sense making (Tannen, 1989; 1992).

Whereas use of figurative expressions is widespread in any communicative situation, its significance is maximal when people lack other expressive means – for instance, in distance text-based communication, as opposed to either oral communication in physical presence, or video-based communication at a distance. In general, the poorer the channel, the greater the value of figurative language for increasing the expressivity of the message. So it is not by happenstance that the best examples of figurative language are to be found in books, letters, and in general in written communication. In this context, words need to be crafted in such a way as to make the recipient envision what is not there to be seen.

Given the relevance of figurative language for text-based communication, it is natural to wonder about its impact on CMC educational experiences, as we will see in the following section.

## **A distance education experience**

The web-based learning environment presented here is an example of an educational experience that heavily relies on textual messages. In discussing the role of figurative language within such context, it is important to focus on specific issues, rather than randomly approaching the unending complexity of this phenomenon. In particular we paid special attention to the role played by figurative language to express the learners' affective domain and by *spatial metaphors* to convey a certain type of content, virtual space.

Context of the research is an Educational Technology course for pre-service teachers enrolled in the Postgraduate Specialization School for Secondary Teacher Training of the University of Genoa (Delfino & Persico, 2007).

During the course held in the 2002/2003 academic year, the condition tested was the spontaneous production of figurative language by the participants (see Manca & Delfino, 2007). Neither solicited nor predicted by the course designers and tutors, at the end of the course it was



noticed that both tutors and students had included a significant amount of figurative language in their written discourse. The aim of the study was to examine only those uses of figurative language that were considered original. This means that stereotyped and abused metaphors (e.g., «feeling down» or «navigating the environment») were ignored. Examples of creative use of figurative language by the participants include «in this brand-new activity, I feel a bit like a little turtle going slowly, slowly» and «to me, this course was the discovery of a New World». Participants used these expressions to communicate their learning experience; to give voice to their emotions, perceptions, and feelings; and to describe the online learning context from a personal perspective.

Analysis of types of figurative language used revealed that participants imbued themselves and others with a corporeal identity using images of animals, objects, or human qualities, and lent a sense of movement in the immaterial CMC environment chosen by course designers (i.e., Centrinity FirstClass). Depending on the learning speed and rhythm, they talked about their course experience through representations of navigators and explorers, animals, means of transport, travels to find their way around the virtual space. Figurative language was used to depict the components of the course context, to ensoul inanimate objects (e.g., the computer); or to embody incorporeal entities (e.g., the CMC environment, the course topics). The CMC environment was represented through images of expanding cities or a dance hall; the computer was construed as a teasing contraption endowed with life.

Since empirical results provided positive evidence for the substantial relevance of figurative language for space construction, emotion expression, identity construction and social interaction, we were interested in experimenting with the adoption of figurative language during the design and conduction phases of the course. The deliberate introduction of spatial figurative themes as part of the instructional design was thus a key component in a subsequent edition of the course. Our hypothesis was that, consistent with previous findings, figurative language would greatly facilitate the expression of private experiences, the transformation of tacit knowledge into shared practices, and the enhancement of social presence for the participants of online activities. Furthermore, proposing a common metaphor would suggest that participants experi-

ence similar attitudes and perceptions towards the shared online environment, and help them in developing a common vocabulary for the collaborative activities.

The course held in the 2004/2005 academic year proposed the spatial metaphor of sea-travel, in which each participant-sailor was supposed to choose a boat (e.g., the fishing-boat, the cruise, etc.) to introduce the new learning and socialization experience. The reasons for choosing this travel metaphor can be traced to the pervasiveness of space, movement and travel images in everyday language (Anders, 2001; Boechler, 2001) and with regard to most of life events (see the metaphor «Life is a journey», of immediate comprehensibility). The spatial metaphor adopted was intended to act as a crucial *mediator* in reconciling the novel experience of online collaborative learning with previous knowledge of social interaction and spatial navigation in traditional learning environments with physical presence. It was expected that figurative language would be used to express the affective needs of the course participants and to improve their social interaction, whereas spatial metaphors would be used to reflect how participants familiarized themselves with the new web-based learning environment.

The textual analysis of the postings exchanged shows that participants largely accepted the metaphorical setting proposed for the online course. From a linguistic point of view, they reacted to the proposal, by using words, phrases and constructs demonstrating their acceptance of the metaphorical environment. From a social point of view, the conference soon became the boat they chose, thanks to the role distribution, the fictitious actions, the destinations and aims to achieve during the initial phase of the course.

Moreover, participants easily appropriated the basic figurative theme and proceeded to elaborate upon it, adding new elements and creative undertones to the original sea-travel metaphor. The analysis suggests that the participants used the metaphorical setting to describe their access to the online environment, in particular to express the difficulties they encountered in trying to access it. Similarly, figurative language helped participants express either satisfaction or dissatisfaction in relation to the use of the online platform and in conducting the required collaborative activities.

Many students went beyond the assigned task, adhering completely to the metaphor. In particular they (a) metaphorically expressed their roles and tasks to be shared and carried out with others (e.g., to captain the boat; to mend nets; to fish); (b) described their shared environment, naming its components and positioning themselves – and their mates – in specific places and locations (e.g., stem and stern; deck; glory hole); (c) talked about their navigation as if they were plotting a sea route (e.g., steering, directing, moving), either towards a specified destination (e.g., North Sea, Arctic Ocean) or just wandering around.

Most significantly, participants increased their confidence in handling linguistic reference to both the online interactive space and the real environment where each of them was positioned during the course. This increased mastery of spatial references seems to indicate a heightened appreciation of the salience of CMC for real-life interactions. Rather than being conceived as a world of its own, the online environment was used by participants, at the end of the course, as a powerful tool to discuss and reflect upon the real world of their everyday experience.

## Conclusion

There are reasons to suggest that prompted use of figurative language may help students reconcile cyberspace and real space. A lack of a clear framework to navigate the CMC platform is a major difficulty for online engagement. To address this problem, it is important to understand the nature of the collaborative activities and the social roles within the virtual community. Neophytes of ICT often lack a map of the social context they enter in the initial phases of online courses: this is a common obstacle, and one of the reasons why *virtual environments* are often perceived as *unreal* or *less-than-real*. Fleshing out the collaborative environment in terms of metaphorical setting can be an effective way of helping participants overcome their sense of estrangement and find their bearings (figuratively *and* literally).

The metaphorical setting, if adequately crafted, acts as an interface between the unknown collaborative experience that the participants are asked to undertake, and their pre-existing knowledge on the real-life ac-

tivities to which the metaphor refers. In our case, by encouraging participants to consider the online conference as a boat, we implicitly instructed participants on the social affordances of the CMC platform – what can be done and what cannot, what is legitimate, illegitimate, or controversial, etc. For one thing, participants are immediately required to see themselves as a group with a shared task (i.e., keeping the boat afloat and running), and not as scattered individuals with independent goals. Since the metaphor may positively or negatively impact course aims, it must be chosen carefully. However, its beneficial effects for familiarizing the participants with the online environment are hardly questionable. Thus we propose that prompting online participants to endorse a metaphorical view may be an effective CMC technique for creating identities and for building and managing social communities online.

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