ANALYSIS OF COMPUTER MEDIATED DISCOURSE IN MULTICULTURAL VIRTUAL TEAMS

Theoretical frameworks and methodology

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Abstract. This article presents a research project on CMD in virtual teams and proposes a methodology synthesizing various analytical frameworks. It introduces a multidisciplinary perspective that accounts for pragmatic, linguistic, sociolinguistic and cultural factors affecting CMD: the theoretical framework of communicative competencies functions as synthesizing framework for the linguistic system, discourse patterns and sociolinguistic rules. The CofP framework serves as an analytical tool to identify the group and define the relationship of the participants, the learning process, the shared repertoire and its effect on communication. The interactional sociolinguistic approach then helps to analyze how social-cultural knowledge shapes communication practices and gives a tool for description of linguistic and pragmatic cues functioning as contextualization cues.

1. Introduction

Virtual teams have an increasingly prominent role in modern organizations, and this type of work is expected to expand at an unprecedented rate in the future (Tavčar et al. 2005: 557). My research focuses on the communication of virtual teams, concentrating on the process of communication, the coding and interpretation strategies. This empirical research of CMD data from virtual teams will contribute to the understanding of factors that influence the language usage of CMD and also advance research about effective cooperation in diverse, multicultural virtual environments.

In this paper I introduce my research project with an emphasis on the theoretical framework that enables a systematic linguistic description of CMD. I propose a research perspective that draws on different fields of linguistics and goes outside of linguistics to draw on social theory. My first starting point will be Simpson’s (Simpson, 2005) system of CMC competencies. Then, a conversation analytic approach and interactional sociolinguistics approach will be introduced in order to have an insight into the conversation practices and implications of the cultural and linguistic background of the participants. I will also argue for the application of the framework the communities of practice (CoP), which will allow us to focus on the
teams themselves and on the formation of the “communities”, the shared repertoire and cooperation.

2. The importance of a new methodologies for computer mediated discourse analysis (CMDA)

Herring (2002: 152) in her summary about CMC points out that because Internet use is part of the everyday routine for large numbers of people around the world, the question of how it is integrated into the complex whole of people’s communicative activities should be addressed. To approach this question, however, raises other issues regarding methodologies applied to CMD data.

I agree with those scholars who argue that it does not seem helpful to compare CMD with spoken and written language. Erickson (2000), for example states, that “in CMC many of our finely honed skills become irrelevant. And the audience to whom we are used to speaking becomes largely invisible”. This, as argued by Simpson (2005: 357), suggests that established approaches to spoken discourse analysis do not necessarily map directly on to a novel form of discourse. My point of departure therefore is that it is not profitable to think about these interactions as a form of speech or writing and describe the language usage in these terms. This approach should be replaced by a perspective that focuses on the interactional facets of CMD, especially because the most fundamental differences between the pre-existing communicative modes and CMD are on the level of social relationships, discourse structure, discourse and interaction management (Zitzen and Stein, 2004: 1016).

Coming to this conclusion, however, raises further issues regarding the actual methodology of data analysis. To choose from the wide array of analytic approaches to discourse (see e.g. Schiffrin et al., 2001; Stubbe et al., 2003) presumes a very clear objective and precisely defined research questions. The complexity of the factors that need to be taken into consideration, however, point towards a direction, where the interactional approach has to be complemented by elements from methods used in social sciences and other fields of linguistics. The description of the factors that have a direct effect CMD, namely the participants, their familiarity with the medium, their cultural background, their position in the group and the power status require a theoretical framework that accounts for all of these conditions. In what follows I will introduce the theories that fulfil this requirement and can serve as a point of departure for the actual data analysis for CMD.

3. Participants: skills and competencies

Tavčar et al. (2005) state that the special knowledge required by CMC very often creates a greater obstacle than the technology itself and that this type of

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1 The classification scheme described by Herring (Herring, 2007) offers an insight into the complexity of the components to be taken into consideration when approaching CMD data.
communication entails new requirements regarding the character and skills of the participants. When exploring these skills I agree with Cherny (1999: 23) and Simpson (Simpson, 2005: 358) in that CMC competence can be described adapting the notion of communicative competence (deriving from the system described by Hymes\(^2\) (1972)).

Simpson (2005) believes that effective participation in CMC environments requires first of all the **knowledge of the linguistic system**, secondly **knowledge of discourse patterns**, then the **knowledge of technology** and finally the **knowledge of socio-cultural rules**.

In terms of my research the linguistic system consists of the virtual team’s common language as well as the participants’ native language. In terms of discourse patterns the electronic competence includes the competence to communicate via any of the computer-mediated communicative modes, adapting the language to those features that differ from the previously existing communicative modes. Managing conversations, conversation threads/topics and coherence is a primary skill in the CMC. The “knowledge of technology” is partly related to the point above in that participants have to understand the functioning communication technologies in order to be able to interpret features such as delays, overlaps, and late responses. It also means that participants should be aware of the options and possibilities provided by the technologies that could eventually speed up or facilitate communication, e.g. framing in e-mails or hyperlinks (Crystal, 2004: 77).

The socio-cultural rules in a computer-mediated environment consist of the rules of one particular group, the aim of their communication, the roles, and also the shared rules of speaking. I think that in terms of the effectiveness of a virtual team this particular competence has a paramount importance. Texts are the means of forming teams, transmitting organizational culture and knowledge. Reversing this statement: teams are formed through cooperation, shared knowledge and a shared practices, where linguistic practices play an important role. The idea of shared practices and cooperation as a force for forming communities evokes a concept used in social and linguistic studies, namely the concept of communities of practice.

## 4. Virtual teams as communities of practice

A community of practice (CoP) is an aggregate of people who, united by a common enterprise, develop and share ways of doing things, ways of talking, beliefs, and values – in short, practices (Holmes and Meyerhoff, 2000). The constitutive features of CoP explain why I suggest this particular theoretical framework as a basis of enquiry.

### 5.1 Mutual Engagement

Wenger’s and Lave’s (1991: 98) use of the word “community” does not require co-presence or a well-defined group, but “participation in an activity system about which

\(^2\) Hymes’ model of communicative competence is not contemporary to CMC research and limited in that it relates mostly to social contexts. To account for the pragmatic abilities of CMC, the description needs to relate not only to social processes but also to technical features of CMC communication.
participants share understanding”. This point of view is particularly useful in case of team-based work environments, where relationships are formed on the basis of regular interaction and participants are often members of multiple teams with varying roles and responsibilities (Watson-Manheim and Belanger, 2002: 2.2).

5.2 Joint Enterprise
The shared goal and negotiated enterprise, Wenger’s second criterial characteristics of CoP, is an elementary requirement in the work of the virtual teams, too (e.g. Tavčar et al. 2005). Individuals within the virtual team must have a shared notion of the outcome they are working towards. A clear definition of what the organization wants to achieve is important in virtual teams because goal setting is one way of creating a background knowledge and a context in which conversational exchanges makes sense.

5.3 Shared Repertoire
Over time, the joint pursuit of an enterprise results in a shared repertoire of joint resources for negotiating meaning (Wenger, 1999: 85). The observation of meaning negotiation, inscription and interpretation, mutual understanding and perhaps the lack of mutual understanding might provide us with detailed answers about the linguistic choices in CMD. The question of how semantic content is understood leads us to our final theoretical framework developed by Gumperz (1982).

5. Interactional sociolinguistics and contextualization
According to Gumperz’s hypothesis any utterance can be understood in numerous ways and people make decisions about how to interpret a given utterance based on their definition of what is happening at the time of interaction. Contextualization cues introduced by him represent surface features of linguistic form that contribute to the signalling of contextual presuppositions as well as to interactive cooperation. Gumperz’s contextualization cues (1982: 131) include for example prosodic phenomena, dialect, style, code, lexical and syntactic options, formulaic expressions, conversational openings, closings, and sequencing strategies. These cues are deeply embedded into the cultural and linguistic background of the participants.

Gumperz conducted his original study in a workplace setting in which multicultural interactions took place. His findings demonstrated that the socio-cultural knowledge of the participants had a direct effect on communication and interpretation. In terms of CMD the question immediately arises: is this the case in CMD in multicultural virtual teams? Do users of online communication tools use contextualisation cues to aid understanding, interpretation and cooperation? If so, what are those?

Regarding the original methodology IS draws heavily on conversation analytic techniques in its micro-analytic approach, but also taking socio-cultural context into consideration. This method, however, has been predominantly used for the analysis of face-to-face interactions, working with information gained from audio (such as pauses, intonation, pitch of voice) and visual (gestures, gaze, body behaviour) signals. This methodology has to be adapted to suit the analysis of data from computer-mediated
environments, where due to the lack of the audio-visual backchannel these signals are not present.

6. Application and next steps

In my research project, I will apply the above described frameworks and the revised IS approach to data collected from a multinational company, where the main form of work is in virtual teams, and various communication modes – mainly over the Internet – are used. Synchronous computer mediated discussions were logged by one of the participants with the subsequent approval of the other participants. The collected conversations represent communication between people of different power status and cultural background.

In the analysis I will use the categories of CMC competencies as a guideline along which the linguistic phenomena can be analyzed, grouped, and the rules of the language usage described, thus this theory will function as a synthesizing framework for the linguistic system, discourse patterns and sociolinguistic rules. I will then examine the participants of one particular team: the CoP framework will account for the members’ position, their professional relationship and their time spent in the group. I hope that this concept will provide a means of capturing the process of change in the language usage of the participants and the formation of a shared (linguistic) repertoire. The main focus, however, will be on the linguistic data: I will attempt to identify the linguistic and pragmatic features that serve as contextualization cues in CMD.

After an initial content analysis I identified several cues that could serve as contextualization cues, such as variation in spelling, punctuation, capitalization, abbreviation, fragmentation, emoticons, meta-utterances, different forms of addressing people, irony. The further and more detailed qualitative analyses will be followed by a quantitative approach in order to be able to draw conclusions about the language usage in CMD and the factors that have an effect on it.

This research will hopefully contribute to the research of computer-mediated discourse from a linguistic perspective answering the call of Herring (2007: 28) to focus on the communication of online communities from various perspectives, as well as to the understanding of performance of teams from a managerial/corporate perspective.

References


3 In the light of this research, some of the phenomena earlier accounted as speed-facilitating tactics might need to be re-defined.


