Chapter 18

Positioning Goes to Work: Computer-Aided Identification of Stance Shifts and Semantic Themes in Electronic Discourse Analysis

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ABSTRACT
This discussion presents two specific computer-aided techniques that allow researchers to combine quantitative and qualitative approaches to the discourse analysis of electronically-searchable text. It illustrates the application of these techniques and their supporting tools to a range of online interactions, including brief reference to entries in online tourism blogs and Facebook comments, in order to provide nuanced interpretations of electronic discourse: (1) stance-shift analysis, a software-based analysis keyed to tagged parts of speech (POS) to identify when speakers/writers shift among evaluative and affective stances to topic, to prompts, and to other participants in communicative interactions; (2) semantic domain analysis using WMatrix®, an online corpus analysis package including UCREL Semantic Analysis System, which tags words by semantic domains, and uses a log-likelihood calculator to identify significant semantic relationships across texts.

INTRODUCTION
The analysis of interactive electronic discourse, both asynchronous and synchronous, involves the researcher with investigating the presence or absence of “‘relational work.’ . . the linguistic work that people invest in negotiating relationships” (Locher & Watts, 2005, cited in Langlotz & Locher, 2012). Whether a person is interacting online with a specific and named Other or with an unnamed and presumably unknown group, such as a blog site for travel reviews, some degree of
relational work can be posited and identified. Earlier scholarship studied this phenomenon under the construct of presence, an offshoot of social presence theory as expanded by Walther’s social information processing perspective, a term Walther (1992, p. 67) credits to Fulk et al. (1987) to describe a “socially constructed model of media choice.”

Establishing the social components of e-discourse has not always been simple. Early work on e-discourse was often concerned with the presence or absence of social cues in computer-mediated communication. In flat email text, or verbal-only data, it was assumed that social context cues were largely absent. However, Walther (1992) reviewed email texts in electronic conferences and found that participants were developing impressions of other participants from their communications. These impressions created a sense of intimacy and identification between participants, and even visual projections of what the others might look like, which led to greater perceptions of social presence. From the perspective of positioning theory (Davies & Harré, 1990), such perceptions underscore the social positioning and re-positioning of participants in e-discourse as a key factor in understanding their relational work.

We first present an overview of key concepts of positioning in order to see how stance and affect interact online, and move to incorporate highlights from current theory and work about stance. As participants interact, they negotiate positions or reposition themselves, and as part of that positioning and repositioning, they shift their stances. Their online negotiation will be keyed to the evaluation and affect they bring to the topic and to each other. Given the explosion of interaction on and through the internet, the amount of data that can be analyzed is increasingly large, making manual coding an extensive process. Since automated coding of stance is not only speedy but also allows researchers to diminish bias, we discuss and illustrate two specific computer-aided techniques that allow researchers to combine quantitative and qualitative approaches to the discourse analysis of electronically-searchable text, which we have found quite helpful. The twelve illustrations are taken from our own work and from work with colleagues in various fields: a reminder that stance, positioning and affect are present in every area of interaction. The two techniques are:

1. **Stance-shift analysis**, a software-based analysis keyed to tagged parts of speech (POS) to identify when speakers/writers shift among evaluative and affective stances to topic, to prompts, and to other participants in communicative interactions;
2. **Semantic domain analysis** using WMatrix®, an online corpus analysis package including UCREL Semantic Analysis System, which tags words by semantic domains, and uses a log-likelihood calculator to identify significant semantic relationships across texts.

**BACKGROUND**

Positioning theory, according to Harré et al. (2009, p. 5), “is concerned with revealing the explicit and implicit patterns of reasoning that are realized in the ways that people act toward others” as opposed to being only a reaction to a particular social stimulus. Someone with the role of teacher may position herself as a learner or as a collaborator or a coach; focus group moderators may position themselves as facilitators, reporters, moderators. Positions, like roles, “pre-exist” as common knowledge among a family, team, or community, including a community of practice, but they are considerably different from roles. Roles are seen as more static, more fixed, less open to choice. Positions are, on the other hand, “labile, contestable and ephemeral” (Harré, 2004). Luberda (2000, n.p.) explains this as due to the fact that positioning