

EFFECTS OF VOICE CHARACTERISTICS ON ATTITUDE CHANGE

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ABSTRACT

A 2 x 2 x 2 factorial designed experiment (2 levels of intensity x 2 levels of intonation and 2 levels of involvement) showed that these two voice characteristics play the role of credibility in the Elaboration Likelihood Model. Main effects of both prosodic characteristics and combined effects of these two characteristics on receivers's attitude toward the message prove to be significant only under low involvement: low intensity and low intonation enhance attitude change, as high credibility does.

1. INTRODUCTION

Very few psychosocial studies investigated the prosodic antecedents of credibility (e.g. Page and Balloun, 1978); some other, more frequent, phonetic studies have investigated the mental image derived from the speaker's voice (e.g. Brooke and Hung Ng, 1986). No research seems to have bridged the gap between the two research areas: this study shows how two prosodic characteristics can be integrated in a widely accepted psychosocial model, the elaboration likelihood model (ELM)

2. ELABORATION LIKELIHOOD MODEL

Petty and Cacioppo developed ELM to explain attitude changes: briefly, they "mapped two basic routes of persuasion: A central route which occurs when the person is motivated and able to think about the issue and a peripheral route which occurs when either motivation or ability is low" (1981:365). The central

route is followed when message arguments enhance "the cognitive justification of (...) issue relevant information" (Petty, Cacioppo and Schumann, 1983:135). The peripheral route is followed because the issue is associated with positive or negative cues or because (of...) simple cues in the persuasion context" (Petty, Cacioppo and Schumann, 1983:135). Among these cues, speaker's credibility constitutes a major one. To the extent that one possesses only a limited amount of information processing time and capacity, the fact of scrutinizing the plethora of counter attitudinal messages received daily would disengage from the exigencies of daily life. E.L.M. proposes a principle of information-processing parsimony according to which consumers seek to process as little data as necessary.

However, no study so far seems to have investigated the voice cues in terms of antecedents of credibility within a structured psychosocial model of attitude change; this is the purpose of our study.

3. PROSODIC CHARACTERISTICS IN SOCIAL PSYCHOLOGY

Prosodic characteristics were studied as indicators of speaker's emotion (e.g. Fonagy, 1983; Leon, 1971) or speaker's personality (e.g. Berger and Kellerman, 1989) or speaker's social status (Pittam and Gallois, 1986) or speaker's persuasive capacities (Brooke and Hung Ng, 1986) or arguments plausibility (Ekman, 1988). Hall (1980) showed that speaker's

persuasibility depended on their manipulated voice characteristics: some specific voices, perceived as "warm", "expressive" or "calm", proved to enhance speaker's persuasibility. The reviewed literature is showing two kinds of studies: In one hand some studies show the voice antecedents of credibility without showing their effects on attitude; on the other hand other studies show the effects of perceived voice on persuasion without pointing at the prosodic causes of these effects.

4. METHODOLOGY

A 2 x 2 x 2 factorial design was used: 2 levels of issue involvement x 2 levels of intonation x 2 levels of intensity. Two mock advertising messages, the linguistic characteristics of which were as close as possible to each other, were designed for a public of business students: the topic of the low involvement advertising message was the ATM card; the topic of the high involvement advertising message was the students' loan. A professional comedian was instructed by the first author to manipulate his voice to produce high versus low intensity and low versus high intonation. A group of 30 linguistics students was used as judges to assess the prosodic variations. A questionnaire on attitudes toward one of the two financial services advertised was administered to eight approximately equal groups (total N = 279) of business students of our university. 221 questionnaires were completed and usable. Manipulation checks showed that, for the tree dimensions of the factorial design, the low level was significantly different from the high level counterpart.

5. RESULTS

An analysis of variance, (the dependent variable of which is the attitude toward the advertised service), shows that:

Neither information nor intensity has main effects on the dependant variable

- As predicted by ELM, issue involvement has significant main effects ($F = 14.37$; $p = .000$)
- As predicted by ELM, however, both intonation and intensity significantly interact with involvement ($F = 3.21$; $p = .075$ for intonation and $F = 2.98$; $p = .086$ for intensity), see Fig. 1 and Fig. 2.
- As predicted by ELM, a three-way interaction between intonation, intensity and involvement significantly interact ($F = 5.000$; $p = 0.026$). See Fig. 3a and 3b.
- Unexpectedly, a two-way interaction between intensity and intonation is found significant ($F = 3.21$; $p = .075$), see Fig. 4. However, when the receivers' involvement score (Zaichkowsky, 1985) is held as a covariate these interactive effects are no more significant, ($F = 1.494$; $p = .223$).

6. DISCUSSION

ELM is basically confirmed: "Peripheral" prosodic cues have significant effect only under low involvement. More precisely, low intensity and low intonation as well as the combination of low intensity and low intonation prove to produce higher attitudinal scores than the high counter parts. Hall (1979) found that in some specific cases "more stiff and less warm" voices produced better persuasive effects. In the absence of other similar studies, we reason that high profile speakers could enhance receivers' defensive mechanisms which are attenuated under low involvement. Our study is confirmatory of some European phonetic studies by Goldbeck et al. (1988) who showed that these are "interactions between (intonation) contour and text in communicating aspects of speakers' affect" (p. 129). Our study shows that the low involvement text enhances the effects of prosodic characteristics which play the role of credibility in E.L.M.

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