

Title	アパレルセレクトショップにおける店員顧客間の同調傾向の研究
Author(s)	辰巳, 槇
Citation	
Issue Date	2012-03
Type	Thesis or Dissertation
Text version	author
URL	http://hdl.handle.net/10119/10475
Rights	
Description	Supervisor:永井由佳里, 知識科学研究科, 修士

Research of Embodied Synchrony between Salesclerk and Customer in an Apparel Selection Shop

Shin Tatsumi

School of Knowledge Science,
Japan Advanced Institute of Science and Technology
March 2012

Keywords: embodied synchrony, interpersonal communication, interpersonal cognition

1. Introduction

Rhythmic synchronization between the body movements of interacting partners is called the embodied synchrony. The embodied synchrony is different from the conforming behavior. The conforming behavior is a concept that means individuals change opinions, attitudes, and behavior toward a group rule and a social norm. As for showing embodied synchrony, it is positively evaluated in an interpersonal cognition and an interpersonal communication. Therefore, showing the embodied synchrony is quite effective in service sales scenes.

In the past study of the embodied synchrony, they have focused on only one element, for example, utterances, movements, and so on. For this reason, a dynamic point of view that is chronological order and elucidation of the relationship between verbal behavior and nonverbal behavior was needed to identify the interpersonal cognition and communication. A recent study of Nomura & Maruno (2007) and Komori & Nagaoka (2010) introduced a dynamic point of view by measuring the movements of the person in chronological order. These studies argued about the preceding-following movements between interacting partners. Especially, the preceding movement of a person who is affected by some kind of interaction is important. These studies observed on the embodied synchrony by using video camera. For this reason, the position of a person as observation object is fixed.

In this study, we suggest more dynamic observation method of the embodied synchrony than the recent studies. Also, to verify the actual condition in service sales scenes, we observe

the embodied synchrony between salesclerk and customer in an apparel selection shop and clarify the social factor that attributed to it. We verify two hypotheses in this study:

- In the embodied synchrony between salesclerk and customer, it appears that customer's preceding movement increases from the first half of the experiment to the latter half.
- Frequency of fashion-related utterances between salesclerk and customer seems decrease from the first half of the experiment to the latter half.

2. Method

First, we divide the subjects to the leader group who are interested in fashion trend and the non-leader group who are not interested in fashion trend by using the fashion leadership scale. This is because, the social factor that attributed to the embodied synchrony is considered their different of interest for fashion in an apparel selection shop. Next, the result of the fashion leadership scaling for Japan Advanced Institute of Science and Technology students showed a similarity to normal distribution (the number of the distribution is 97, collection is 70, and collection rate is 72.16 %).

Based on diffusions of innovation, the respondents are divided to the leader group that is higher of 16 % and non-leader group that is lower than 50%. Five peoples are extracted from each group as the subject of this experiment. Furthermore, some electronical devices were used in this regard, iPod-touch (acceleration sensor), IC-recorder, and laptop to observe the embodied synchrony between salesclerk and subjects in an apparel selection shop. Five pairs of leader-non-leader were set up, and each of pair was observed within different day. To observe the actual condition of the embodied synchrony in service sales scenes, this experiment were conducted in a shop called "PRESENCE" in Kanazawa-city.

3. Analysis

To observe the different movements between each of the group and the salesclerk, this study provided 20 seconds of time length to measure the average movement of acceleration. Next, to observe the time changing of the embodied synchrony between salesclerk and subjects, a displacement correlation analysis is used by considering the acceleration data with time delay (-5 sec ~ +5 sec, window shift is 0.1 sec, window length is 3 minutes) and the experiment time of each subject was divided to 3 equal parts (first, middle, half). An IC recorder is used and all records were written as texts data, these texts are useful to observe the utterances between each of the group and the salesclerk. This study also applies an analysis of fashion-related utterances by using morphological analysis software 'ttm (Tiny Text Miner)'.

4. Results

First, to observe the embodied synchrony between salesclerk and subjects by using coefficient of correlation take account of time delay, a two (leadership : leader, follower) by three (time : first, middle, later) analysis of variance were conducted. The result shows that the following movements are more frequent than preceding movements for the leader group ($p < .01$). When the time of movements was changed, to the leader group, preceding movement increases from the first half of the experiment to the middle half and the latter half (*n. s.*). When comparing the first half and the latter half, to the leader group, preceding movement were significantly increased. On the other hand, we could not observe a significant difference in the non-leader group. Next, to observe the fashion-related utterances between each of the group and the salesclerk, an analysis of variance revealed that a more frequent of fashion-related utterances were occurred during the salesclerk in the leader group than the follower group ($p < .10$).

5. Discussion and Conclusions

As a result of the experiment of the embodied synchrony by using acceleration sensor and IC recorder, it shows that the preceding movement of the leader group increase from the first half of the experiment to the latter half. On the other hand, the non-leader group has no significant change. There seems more frequent fashion-related utterances were occurred during the salesclerk in the leader group than the non-leader group in the first half of the experiment. This study shows that the salesclerk recognized the customer who appears having an interest to buy those fashions. The salesclerk was actively being the subjects of the leader group in the first half of the experiment. Then, the salesclerk followed the movements of the subjects of the leader group gradually.

This can be concluded that the hypotheses of the leader group in an apparel selection shop are supported by this research. These results proved the method of customer service of the salesclerk was one of factor that affected the subjects. The salesclerk behaves to influence the customer in the first time to eliminate subject's sense of tension and anxiety.

This study successfully observed the differences of the embodied synchrony by dividing the subjects with their different of interest for fashion. Furthermore, it was shown that the utterance is one of the factors of the embodied synchrony. In other words, we could observe the relationship between verbal behavior and nonverbal behavior in the embodied synchrony. Also, this study has showed that the social factor that attributed the embodied synchrony in an apparel selection shop is the different of interest for fashion.