

2008

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Mirjam Schmidt¹

Maastricht University, m.schmidt@mw.unimaas.nl

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Recommended Citation

Schmidt¹, Mirjam, "B2C Advice on Complex Service Products via Video Calls Explanations from Social Presence and Adaptive Structuration Theory" (2008). *EIS 2008 Proceedings*. 1.
<http://aisel.aisnet.org/eis2008/1>

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B2C Advice on Complex Service Products via Video Calls

Explanations from Social Presence and Adaptive Structuration Theory

Mirjam Schmidt¹

Promotor: Prof. Dr. Ko de Ruyter²

Supervisor: Dr. Rita Walczuch³

At the beginning of the 21st century, most service companies maintain relationships with their customers without any face to face communication. Companies are increasingly looking for solutions to raise personal contact with their customers while keeping a high efficiency level. Social Presence means that people can feel like being together even when their conversation is technology-mediated. We build upon Adaptive Structuration Theory to explain under which conditions the highest levels of Social Presence can be achieved.

Surveys and (field) experiments are combined (1) to develop a powerful measurement instrument for Social Presence, (2) to research in which situations technology-mediated communication is perceived to be the most “personal” and (3) whether Social Presence can account for higher levels of relationship building.

¹ Mirjam Schmidt, Ph.D. Candidate at Maastricht University, Faculty of Economics and Business Administration (FdEWB), Department of Marketing / AIM, P.O.Box 616, 6200 MD Maastricht, the Netherlands, Tel.: +31 43 38 83 861, Fax: +31 43 38 84 918, E-mail: m.schmidt@mw.unimaas.nl

² Prof.Dr. Ko de Ruyter, Maastricht University, FdEWB, Department of Marketing

³ Dr. Rita Walczuch, Maastricht University, FdEWB, Dept. of Accounting & Information Management

I Research topic

In the past, many face-to-face interactions between customers and service companies have been replaced by online interactions. Faster internet connections allow to increase the media richness of these interactions by using video calls. According to Social Presence Theory, media richness should increase the feeling of “being together”. But is providing richer communication channels the only thing companies can do to increase this Social Presence? And does the creation of Social Presence pay off for companies?

This research addresses three research questions which shall be explained below:

a) What is Social Presence and how is it different from Involvement?

More than three decades ago, Short, Williams and Christie (1976) introduced the concept of Social Presence (SP). They defined SP as being the “degree of salience of the other person in the interaction and the consequent salience of the interpersonal relationships [...which...] is an important key to understanding person-to-person telecommunications” (p.65). Short et al. argued that SP is a one-dimensional concept, even though they name actually two aspects by focusing on the salience of the person and the relationship. Most researchers today seem to agree that Presence consists of several dimensions (e.g. Heeter 1992; Harms and Biocca 2004). In most factor analyses, one dimension relates to physical/spatial Presence. However, the vast majority of studies in the field focus on virtual environments, in which verbal communication between humans plays no role. Most measurement inventories also include “Involvement” as one aspect of (Social) Presence (Witmer and Singer 1998; Schubert et al. 1999; Lessiter et al. 2001). We argue that Involvement is rather a state which forms the condition for Presence to happen: Once a person is really involved into a conversation, he or she might feel the Presence of the other party. Since this relationship is reflected insufficiently in previous research, we propose to separate Conversational Involvement (CI) and SP with the following definitions:

***Social Presence (SP)** is the perception of a human being during a technology-mediated interaction. It consists of two sub-dimensions, one being “physical presence” that deals with the perception of being physically together, and one that consists of the “presence of the reciprocal emotional relationship” formed between the humans communicating in a mediated environment.*

***Conversational involvement (CI)** in technology-mediated communication is a state in which a communication partner focuses his or her interest and attention on the communication.*

b) How can Adaptive Structuration Theory (AST) inform Social Presence Theory?

Social Presence theory argues that conversations via richer media lead to more social presence (Short et al. 1976). However, it was proposed that also other factors facilitate whether or not SP is felt. Harms (2004) shows that a previous existing relationship between communication partners has a positive impact on the level of SP felt. Other authors propose also certain user characteristics or the task to contribute to the perceived feeling of Presence (e.g. Lessiter et al. 2001). This proposition is in line with AST which names – next to technology - number of other factors that function as “sources of structure”. These “sources of structure” cause a certain output in a communicative interaction (DeSanctis and Poole 1994). We propose SP to be one output of such an interaction, and CI to be a process that takes place during the interaction. By identifying CI as an antecedent of SP, firstly, the black box in AST opens up: CI could be the “Social Interaction”,

which is the antecedent of the “Output” in AST. Secondly, Social Presence theory is expanded by an explanation of how the feeling of SP occurs.

c) What effects has Social Presence on Consumer’s relationship building?

SP on websites has been linked to purchase intentions with trust being a mediator (Gefen and Straub 2004). However, this study was not applied to a human-to-human interaction , and it was done with a SP Scale that is different from the actual definition of SP. It is expected that SP has a positive impact on purchase intentions, but this relationships needs to be empirically tested (see appendix C, Hypothesis 4).

II Empirical studies

Project 1: How can Sp and CI be measured?

State: finished

As described above, social presence seems to exist of two dimensions: physical and presence of a reciprocal emotional relationship. However, most measurement scales focus only on the physical aspect, can only be applied for rich media with visual cues (e.g. “The displayed environment seemed natural” from the ITC-SOPI by Lessiter et al.2001), are very long (e.g. Lessiter et al: 44 items) and do not include appropriate items to be used when evaluating a conversation between humans. To the best of our knowledge, only one scale exists that measures SP on websites in 5 questions (Gefen and Straub 2004). However, this instrument seems to fit poorly to most definitions of SP and appears somehow inappropriate to measure SP during a conversation between humans.

Therefore a survey was executed among second year bachelor students with data on 48 statements on SP and CI (35 taken from existing scales) (n=334). Students were asked to refer to their last communication via an instant messaging programme. These items, including the 5 items developed by Gefen and Straub (2004) were analyzed in a factor analysis. After analyzing Eigenvalues of each statement, the Screeplot and the factor loadings, several items were deleted, and the best 4 items for CI and for each dimension of SP where maintained. As it can be seen from appendix A, the 12 items load as expected. The items developed by Gefen and Straub form a separate factor, one item loads marginally on the wrong factor.

To confirm the 3 factors, a second data collection was performed among 125 second year bachelor students. The results can be seen in Appendix B; the findings of the first analysis are unconditionally confirmed.

Both analyses indicate that SP can be discriminated from CI and that 2 dimensions of SP can be theoretically supported and found in practice. This short questionnaire provides researchers with a tool to measure SP and CI by means of a survey with only 12 questions for both constructs.

Project 2 (qualitative pre-study): Interviews

State: finished

4 customers and 2 diet advisors used a television communication system for 3-4 months. At the end of the period, interviews with the participants revealed that the previous face-to-face meeting which took place in this setting was very important to them, otherwise they would not have accepted or trusted in an advice via this medium. Furthermore, the respondents found some tasks more appropriate than others. Based on this, it was decided that relationship and conversation style should be the first two components to be tested in a quantitative study in project 2.

Project 2 (main study): Experiment

State: Data collection in March 2008

Project 2 aims at investigating the effect of relationship and task on CI and SP. It is expected that if a relationship exists, customers will feel more involved into the conversation and will also feel a higher level of SP (see appendix C, hypothesis 1a and 1b). Furthermore, if the task is rather a collaborative consulting than an information giving from one side, customers will feel a higher level of CI because they are actively involved into the service-product creation by being asked for details to customize the product (see appendix C, hypothesis 2).

In an experiment, 120 students shall communicate with a financial advisor about a complex financial product (private retirement provisions). The conversations will last 20 minutes each, and will be executed via a video-communication programme (Skype) with a high-end webcam. After the interaction, participants will be asked to fill in a survey on SP and intentions to continue the relationship (e.g. interest in subsequent meetings, interest to give personal contact details to the company). Participants will be randomly assigned to the following conditions:

Relationship (With / without previous face-to-face meeting): This state simulates an existing relationship. In the experiment, a part of the participants will be asked to drink a coffee / tea with their supervisor, and part will not have this meeting.

Conversational style (Information task/ consulting task): This state manipulates the way the product is presented to the participant. In the information task, the advisor mainly informs the participant about the product. In the consulting task, the advisor asks the participant to disclose information on himself, based on which a product will be offered that meets exactly his needs.

	with f2f meeting	No meeting
Information task	n=30	n=30
Consulting task	n=30	n=30

Table 1: experimental conditions project 1

Implications Project 2: If the hypotheses are supported as expected, we can show that other factors than technology have a significant impact on SP as predicted by AST. Companies will be able to influence SP not only by offering richer communication channels, but also by manipulating the conversational style or assign customers to fixed advisors (to enable them to build up a relationship during several service encounters). Researchers will have extended knowledge on antecedents and consequences of SP in human interactions.

Ideas for Further Projects

Based on the findings of project 2, a third project will be designed. Our current idea is to investigate more specifically whether the advisor-customer relationship is extendable to other people. In praxis we are often faced with the situation that an expert is needed when consulting customers on very complex products. This might be a tax expert who is asked for advice in combination with an advice on an investment product in a bank. This tax expert might have an existing relationship with the bank advisor but not with the customer, a face-to-face meeting is not possible. Does a video call result in higher levels of SP if the customer has a relationship with his bank advisor and knows that the bank advisor has a relationship with the tax expert than if any of these relationships is not present? We aim to test this in an extensive field experiment in a German bank.

Literature

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Appendix A – results of the first factor analysis (PROJECT 1)

	EP*	CI*	PP*	GS*
1) I was able to sense the emotions of my communication partner. [A]	.850			
2) I was able to sense the feelings of my communication partner. [A]	.799			
3) I could tell how my communication partner felt. [B]	.760			
4) I was influenced by the mood of my communication partner. [A]	.628			
5) My communication partner did not receive my full attention. [B]		.843		
6) I was distracted during the conversation. [C]		.818		
7) I was focused during the conversation. [C]		-.759		
8) I remained focused on my communication partner throughout our interaction. [B]		-.710		
9) I felt as if my communication partner and I were located in the same room. [D]			.817	
10) I forgot that my communication partner was not in the same room as I. [A]			.771	
11) When we ended the conversation, it felt as if my communication partner had left the room. [A]			.745	
12) When we started the conversation, it felt as if my communication partner had entered the room. [A]			.674	
13) During the conversation I perceived as sense of human warmth. [E]			.358	
14) During the conversation I perceived as sense of personalness. [E]				-.775
15) During the conversation I perceived as sense of sociability. [E]				-.728
16) During the conversation I perceived as sense of human contact. [E]				-.680
17) During the conversation I perceived as sense of human sensitivity. [E]				-.503

Sources of items: A (own design); B = (Harms and Biocca 2004); C = (Coker and Burgoon 1987); D = (Mühlbach et al. 1995; Hwang and Lombard 2006); E = (Gefen and Straub 2004)

*EP = Presence of emotional reciprocal relationship; CI = Conversational Involvement; PP = Physical Presence; GS = items of Gefen and Straub 2004

Factor Analysis (n=334)

Extraction Method: Principal Component Analysis

Rotation Method: Oblimin with Kaiser Normalization

Criteria to determine number of factors: Eigenvalue \geq 1

Sorted by size. Loadings below .350 are not indicated

Appendix B – results of the second factor analysis (PROJECT 1)

	EP*	CI*	PP*
1) I was able to sense the feelings of my communication partner.	.856		
2) I could tell how my communication partner felt.	.834		
3) I was able to sense the emotions of my communication partner.	.760		
4) I was influenced by the mood of my communication partner.	.644		
6) I was distracted during the conversation.		-.860	
7) I was focused during the conversation.		.850	
5) My communication partner did not receive my full attention.		-.849	
8) I remained focused on my communication partner throughout our interaction.		.768	
9) I felt as if my communication partner and I were located in the same room.			.879
10) I forgot that my communication partner was not in the same room as I.			.843
11) When we ended the conversation, it felt as if my communication partner had left the room.			.807
12) When we started the conversation, it felt as if my communication partner had entered the room.			.792

*EP = Presence of emotional reciprocal relationship; CI = Conversational Involvement;
PP = Physical Presence

Factor Analysis (n=125)

Extraction Method: Principal Component Analysis

Rotation Method: Oblimin with Kaiser Normalization

Criteria to determine number of factors: Eigenvalue ≥ 1

Sorted by size. Loadings below .350 are not indicated

Appendix C – Conceptual framework and Hypotheses (PROJECT 2)

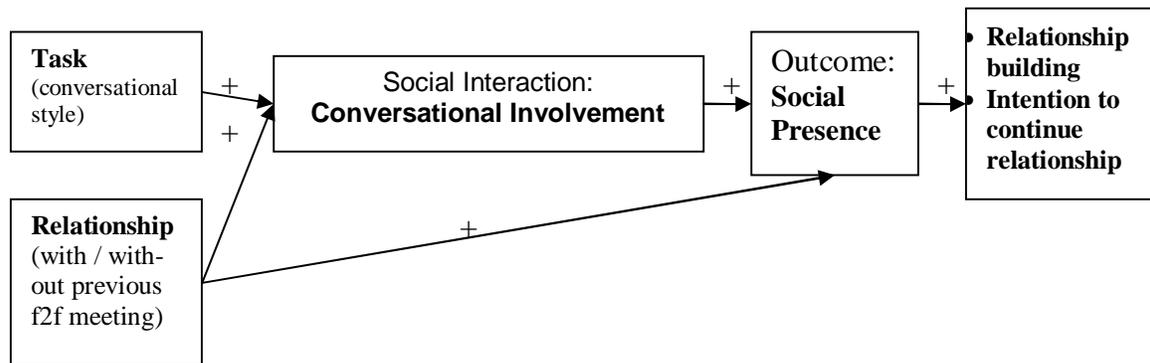


Figure 1: Conceptual model based on Adaptive Structuration Theory

Hypotheses:

H1a: Customers will feel a higher level of Conversational Involvement if they have an existing relationship with the advisor before their first technology-mediated conversation.

H1b: Customers will feel a higher level of Social Presence if they have an existing relationship with the advisor before their first technology-mediated conversation.

H2: Customers will feel a higher level of Conversational Involvement if they are advised in an consulting style rather than in an information style.

H3: Customers who are more involved into a conversation will also feel more Social Presence.

H4: Customers who feel more Social Presence have higher intentions to continue the relationship / intentions to buy.