

The Role of Telepresence in Exploratory Consumer Behavior.

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CONTENT

1. INTRODUCTION
 2. CONCEPTUAL FRAMEWORK
 - 2.1. EXPLANATION OF TELEPRESENCE
 - 2.2. TELEPRESENCE AND INTRINSIC MOTIVATION
 - 2.3. CONSEQUENCES FOR TELEPRESENCE EXPERIENCE
 3. CONCLUSION
- REFERENCES
-

1. INTRODUCTION

There is no more doubt that telepresence is considered as an important media characteristic (for new media as well as for traditional ones, but at a lesser extent). Therefore, it becomes a popular construct in research fields such as communication (e.g., Kim and Biocca, 1997; Lombard and Ditton, 2000) and psychology (e.g., Lessiter et al., 2000; Ijsselsteijn, 2000 a, b).

Although more and more studies focus on telepresence antecedents, there is an evident lack of results on its effects (Lombard and Ditton, 1997). Moreover, a crucial question remains with no answer : « Is telepresence necessarily a good thing ? » (Lombard and Ditton, 1997, P. 21). From a marketing point of view, the answer is not simple. Enhancing telepresence could have interesting impacts like playfulness and enjoyment but could distract the user from the media purpose like purchase. What is the net effect upon consumer behavior ? Do positive effects always exist ?

This present research aims at identifying one of the conditions under which telepresence has positive impacts, i.e. intrinsic motivation to use the media in telepresence state. Indeed, if experiencing telepresence is an intrinsically motivated activity¹, the consumer should adopt an exploratory behavior, which generates itself substantial business benefits (e.g., positive affect, Deci and Ryan, 1992).

First of all, the paper will position theoretically the concept of telepresence (definition, dimensions, antecedents and consequences). Secondly, intrinsically motivated feature of telepresence experience will be highlighted. Finally, its positive consequences will be developed.

¹ « Intrinsically motivated activities are ones for which there is no apparent reward except the activity it-self. People seem to engage in the activities for their own sake and not because they lead to an extrinsic reward » (Deci, 1975, P.23).

2. CONCEPTUAL FRAMEWORK

2.1. EXPLANATION OF TELEPRESENCE

Telepresence is a psychological state in which the individual doesn't perceive the media existence anymore. The individual in telepresence responds to objects/events as he/she does if the media were not there. Telepresence could therefore be defined as «the perceptual illusion of nonmediation» (Lombard and Ditton, 1997, P. 7). This definition has the great advantage to gather the three main telepresence types : the «physical» telepresence (the sense of being there in a displayed environment), the «social» telepresence (the sense of interacting with others in a displayed environment) and «co-presence» (the sense of being co-located with others in a mediated environment). Up to now, there is no consensus about the telepresence conceptualization. Are physical and social telepresence two dimensions of a unified construct which is co-presence ? Or are these three types different constructs for a same phenomenon ?

In spite of any conclusion about construct dimensionality, the study deals only with the first type, physical telepresence. Therefore, the very brief state-of-the art hereafter doesn't consider illusion of social relationship with entities (real or artificial) but illusion of immersion.

The literature seems to converge towards three (sub-)dimensions : involvement/engagement, spatial presence/physical space and judgment of realness/naturalness (Schubert et al., 1999; Lessiter et al., 2000).

- Involvement/engagement is the motivation to engage in a specific activity, in this case media use.
- Spatial presence/physical space means perception of being in a mediated environment and perception of not being in an immediate physical environment.
- Judgment of realness/naturalness designates perception of similarities between virtual objects or events and real ones.

Considering «involvement/engagement» as telepresence dimension is not evident : Is it really a dimension or a variable which is itself both antecedent and effect of telepresence (recursive causal relation) ? In other words, what is going on when this variable is absent ? On one side, if no telepresence is observed, we could conclude that this variable is rather a condition than a dimension. On the other side, if telepresence is well observed but at a lesser degree, this variable could be considered as a telepresence dimension. The question still remains and needs to be examined in more details.

Telepresence is captured by subjective and objective measures. Most often used in subjective measures, post-experience questionnaires are nevertheless very criticized by scholars because of a lack of stability (Ijsselsteijn et al., 2000a). Studies develop therefore continuous subjective measures (Ijsselsteijn and Ridder, 1998) and objectives ones (par ex., Prothero, 1998 ; Ijsselsteijn et al., 2000b). Anyway, continuous telepresence assessment is not the panacea because of its obtrusiveness : the experience subject has to divided his/her attention into media and measure tool. Then, the results could be biased. In conclusion, use of stable subjective measures corroborated with objective measures (physiological and/or behavioral) seems the better way to measure telepresence. Indeed, telepresence state could be unconscious and therefore not be reflected only in subjective measures but in both subjective and objective ones.

Telepresence is caused by media form variables (e.g., media visual and audio characteristics, interactivity, number of users, etc.), media content variables (e.g., media conventions use, media realism, etc.) and user characteristics (e.g., willingness to disbelief, cognitive style, media experience, etc.) (Lombard and Ditton, 1997). Although more and more studies are undertaken about factors which contributes to the sense of telepresence, few examine its effects. Three types of

« physical » telepresence effects could be considered : psychological (e.g., enjoyment, flow state, etc.), physiological (e.g., arousal, motion, automatic responses, secondary effects, etc.) and behavioral (e.g., task performance, aptitude training, etc.) (Lombard and Ditton, 1997). Because of these possible effects, telepresence experience would be really fruitful to induce for doing business (this point will be discussed later).

The figure 1 subsumes the telepresence general model inspired with the Lombard and Ditton's literature review (1997).

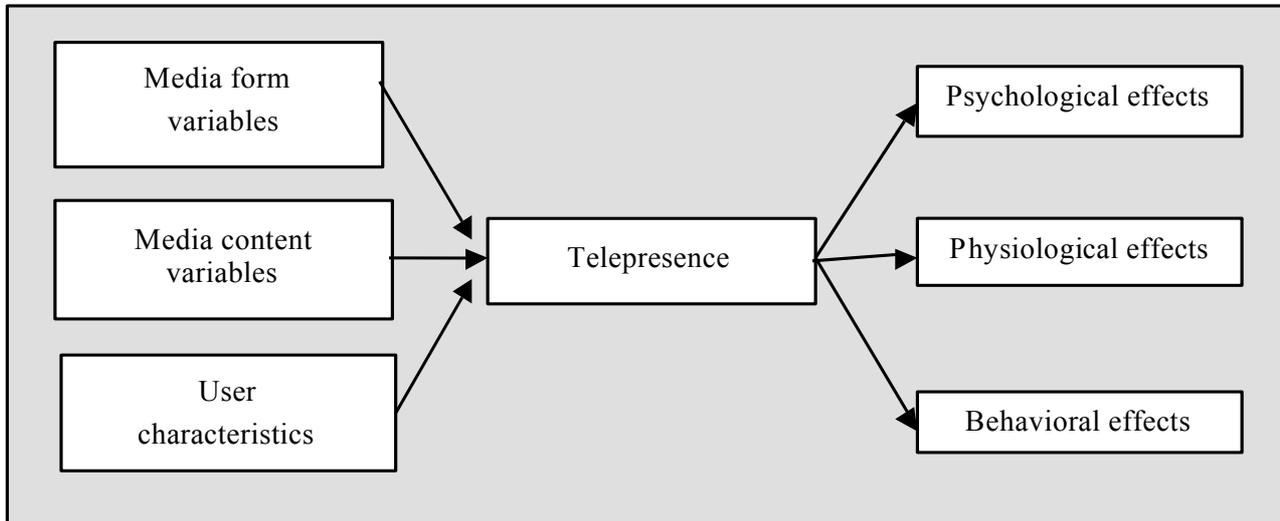


Figure 1 : Physical Telepresence general model inspired with the Lombard and Ditton's literature review (1997).

2.2. TELEPRESENCE AND INTRINSIC MOTIVATION

When could you characterize an activity as intrinsically motivating ? According to the literature, there are two theoretical traditions in order to explain the psychological basis of intrinsic motivation, the one based on cognition and the other based on affect. Both theories are complementary in order to capture completely intrinsic motivation, each contributing to an aspect absent in the other (Reeve and Cole, 1987).

- Cognitive theory postulates that activities are intrinsically motivating if one's task performance produces a sense of mastery and competence. Two conditions are then required : internal locus of causality² to behavior and positive feedback on interaction with the environment (Deci, 1975).
- Affect theory emphasizes that activities are intrinsically motivating if its generates one's excitement and enjoyment. These latter are dependant on stimuli such as novelty, complexity, change and variability. Exploration of these stimuli leads to excitement reduction, which itself gives rise to enjoyment.

As intrinsic motivation depends both on personal characteristics (e.g., internal locus of causality) and situational ones (e.g., task complexity), a specific activity could be only potentially intrinsically motivating.

Is experiencing telepresence intrinsically motivating ? The answer is « Yes, maybe ! ». On the one hand, when the user experiences telepresence, he/she interacts with the virtual environment like he/she would do with the real one. Therefore, first, the user will receive feedback about his/her interaction with the environment. Secondly, user's locus of causality through virtual reality will be the same than through reality. On the other hand, concentration level required for telepresence state

² « Some people perceive that rewards or other reinforcing events follow from their behaviors or attributes; these people are called internal controls. (...) Other people believe that rewards are determined primarily by luck or fate and have no particular relationship to their behaviors or attributes ; they are termed externals controls (...) (Deci, 1975, P. 90).

excites the user and enjoys him/her. Moreover, to be immersed in virtual reality is for most of us a new experience.

In conclusion, experiencing telepresence is potentially an intrinsically motivated activity because of media characteristics and, therefore is associated with various advantages, which are presented in the next paragraph.

2.3. CONSEQUENCES FOR TELEPRESENCE EXPERIENCE

Intrinsic motivation is associated (among other things) with enhanced performance, positive affect and exploratory behavior (Deci and Ryan, 1992), i.e. with cognitive, affective and behavioral benefits.

- First, if people are intrinsically motivated to engage in an activity, they will spend more time and effort in this activity and will use what they learn more in the future (Malone, 1981).
- Second, if they are in a positive affect and more precisely in a good mood, then they are likely to favorably evaluate object or situation (Schwarz, 1990).
- Third, an exploratory behavior could be defined as « behavior with the sole function of changing the stimulus field » (Berlyne, 1963, P. 288), and could arouse people to engage in other tasks within the same activity.

As experiencing telepresence is an intrinsically motivating activity, we could presume that telepresence will take advantages of intrinsic motivation benefits. Are these interesting in a marketing point of view ? Of course, yes ! For instance, if the user visiting a virtual shop is in telepresence, he/she is likely to spend more time shopping, to have a favorable predisposition for the product/service, etc. Even if all of telepresence causes presented above would be very interesting to deepen, the paper will discuss more thoroughly the point related to exploratory behavior. In fact, the desire for exploration has been a recurring theme in consumer behavior research in order to find out consumer buying influences (Baumgartner and Steenkamp, 1996). Indeed, consumer tendencies for exploration could lead to product information seeking or even to novel purchase experiences.

Exploratory consumer behavior is specified as « those activities involved in the buying process (in the broadest sense) which are intrinsically motivated and whose primary purpose is to adjust actual stimulation obtained from the environment or through internal means to a satisfactory level » (Baumgartner and Steenkamp, 1996, P. 124). Therefore, the psychological basis for exploratory consumer behavior is the optimal stimulation theory (e.g., Hunt, 1965; Hebb, 1955), which is based on the notion that organisms need for a moderate level (psychological or physiological) of stimulation in order to function effectively (Deci, 1975).

Baumgartner and Steenkamp (1996) conceptualize exploratory consumer behavior into two dimensions which refer more to purchase experience than to consumption (e.g., consumption of entertainment, art objects, etc.).

- The first dimension called « experience acquisition of products » (EAP) is the sensory stimulation in purchasing risky and innovative products. In this case, the consumer enjoys buying unfamiliar products or even innovative ones and is willing to change his/her purchase experience.
- The second, - « experience information seeking » (EIS) - , is the cognitive stimulation in acquiring consumption relevant knowledge. In this other case, the consumer likes to go browsing and window shopping and is interested in all forms of product information (ads, word-to-mouth, etc.).

At first sight, telepresence leads to valuable consequences (figure 2) thanks to its role in consumer exploratory behavior. Therefore, practical recommendation would be to design the company virtual

shop in order to facilitate consumers' telepresence state and indirectly consumers' exploratory behavior.

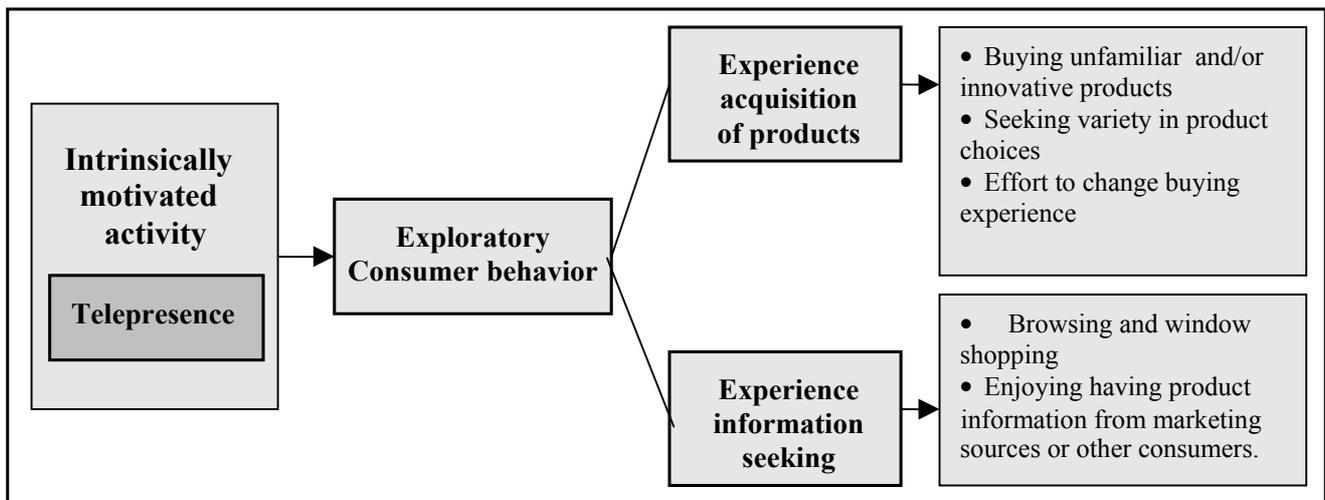


Figure 2: Role of telepresence in exploratory consumer behavior

Anyway, an evident condition to profit from this benefit is that the consumer has to consider media activity as intrinsically motivating, as an hedonic activity. It is not sufficient to take into account the media variables because it depends also on user's characteristics, out of control variables by the company. Say that the consumer has to be intrinsically motivated means that he/she has an experiential behavior and not a goal-directed behavior (based on extrinsic motivation and an utilitarian purpose). People who use the media in order to search information or to buy a specific product are less likely to be present in the virtual environment than people who use the media without particular goal. In this sense, facilitating telepresence favors more impulse buying than planning one.

3. CONCLUSION

Telepresence is potentially an intrinsically motivated activity. It depends on media characteristics, i.e. controllable variables, and on user characteristics, i.e., uncontrollable variables.

In the future, it will be interesting to explore if the user is not intrinsically motivated by media use and, therefore have an extrinsic behavior could be experience anyway telepresence. A first answer element could be found in the conceptual definition of telepresence. If telepresence is composed by a motivational dimension, is it by both intrinsic or extrinsic motivations (i.e. involvement) or only by intrinsic motivation (i.e., engagement) ?

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