



Look into my eyes! Exploring the effect of addressing in educational videos



Maik Beege^{*}, Sascha Schneider, Steve Nebel, Günter Daniel Rey

E-Learning and New Media, Faculty of Humanities, Technische Universität Chemnitz, Germany

ARTICLE INFO

Article history:

Received 29 July 2016

Received in revised form

4 January 2017

Accepted 13 January 2017

Available online 22 January 2017

Keywords:

Learning

Educational videos

Parasocial interaction

Addressing

ABSTRACT

Numerous studies were conducted to investigate how recipients are affected by the miscellaneous characters in multimedia. However, there is a lack of research concerning the connection between parasocial processes and learning performances. This study aims to investigate the influence of *addressing* (as a social encounter of *parasocial interaction*) on learning performance in an educational video. *Addressing* was operationalized by manipulating proximity (near vs. far) and orientation (frontal, vs. lateral) of a presented lecturer. We conducted an experiment with 88 participants who were randomly assigned to one of the four experimental groups. Results revealed a large significant orientation effect for retention performance with higher learning outcomes for frontal orientation. Proximity did not significantly influence learning outcomes. Results were interpreted suggesting perceived *parasocial interaction* which was enhanced in the frontal condition. Parasocial interaction might lead to deeper cognitive processing and affective states which are beneficial for learning. The findings of this study show that learning is fostered by personae in educational learning environments by giving learners the impression to be *addressed* directly through eye contact.

© 2017 Elsevier Ltd. All rights reserved.

1. Introduction

Away from classical teaching and learning situations, learning media are often implemented with persons, fictional characters or other social entities in order to enrich the learning environment. For example, social entities are represented in educational textbooks, in interactive learning media as pedagogical agents or in educational videos as lecturers. However, to date, no study has examined the (para-) social focus of learning with multimedia. The term parasocial refers to parasocial interaction (PSI) which inevitably takes place when a social entity is implemented in the learning environment and influences learning.

PSI is an extensively studied concept in media research. The construct was first defined by Horton and Wohl (1956, p.215) and refers to a “conversational give and take” between recipients and media figures, characters and entities (personae; Hartmann, Schramm, & Klimmt, 2004). With respect to the original definition, PSI is one-sided, non-directional and not susceptible of mutual

development (Horton & Wohl, 1956). The concept is characterized as a cognitive, affective or/and behavioral action from the recipient towards media figures who cannot respond or reciprocate (e.g., Hartmann et al., 2004; Tsay-Vogel & Schwartz, 2014). This missing communication channel from the recipient towards the persona is outlined with the term “para”. More precisely, the recipient cannot influence the persona but audience members get effected by media figures. There are numerous findings that specify this parasocial influence (e.g., Giles, 2002; Klimmt, Hartmann, & Schramm, 2006; Tsay & Bodine, 2012). Parasocial interaction has multiple implications for enjoyment, identification and learning (Tsay-Vogel & Schwartz, 2014). Though, even 60 years after the first definition of PSI, the influence of PSI between the recipient and personae on learning is not clearly specified. This study aims to extend the understanding of PSI by introducing the concept of parasocial learning (PSL) and adding this concept in multimedia learning research. Prominent theories, such as the Cognitive Load Theory (CLT; Sweller, 1988; Sweller, Ayres, & Kalyuga, 2011) and the Cognitive Theory of Multimedia Learning (CTML; Mayer, 2005; 2014), only consider cognitive influences and were later extended on affective, motivational and metacognitive factors (aCLT; Huk & Ludwigs, 2009; CATLM; Moreno, 2006). Therefore, this study aims to take a first step in order to supplement these theories by considering

^{*} Corresponding author. E-Learning and New Media, Faculty of Humanities, Technische Universität Chemnitz, Straße der Nationen 12, 09111, Chemnitz, Germany.

E-mail address: maik.beege@phil.tu-chemnitz.de (M. Beege).

parasocial influences.

2. Literature review

2.1. Parasocial interaction

Parasocial and social interaction are scarcely different from each other. Both processes arise from evolutionary social recognition mechanisms (Reeves & Nass, 1996). Basal stimulus-response schemata ensure that minimal optical information is sufficient to create the illusion of a social entity (e.g. Biocca & Harms, 2002). This applies to real persons as well as animated social entities within media environments. According to the paradigm of *computers are social actors* (CASA; Nass, Steuer, & Tauber, 1994), social responses to computers are commonplace, incurable and easy to generate. Simple cues like voices or personifications within a multimedia environment create the sense of a social presence (Lee & Nass, 2003) and lead to a social response. Cues of humanness encourage individuals to apply social rules and change cognitive processes (Nass & Moon, 2000). Therefore, even large deviations from natural human appearance lead to parasocial processes. For the current investigation, the understanding of PSI is based on Hartmann et al. (2004) which relates to the original definition of Horton and Wohl (1956). Like social interaction, PSI is defined as a process with different facets (Hartmann et al., 2004). At first, there are perceptive-cognitive processes as attention, understanding and evaluation. The second facet refers to affective states such as sympathy and antipathy. The third facet comprises observable behavior towards the personae. The appearance and strength of these facets vary during media consumption. These findings are summarized in the two-level model of parasocial interaction (Hartmann et al., 2004). PSI processes can be strong (high level PSI) or weak (low level PSI). The strength of parasocial processes depends on many factors in terms of the personae (e.g., perspective, proximity, attractiveness) and the recipient (e.g., personality variables, motivation; Hartmann et al., 2004; Schramm & Hartmann, 2008; Schramm & Wirth, 2010).

The current investigation focusses on processes during media reception and therefore, during learning. In this context, it is necessary to differ between parasocial interaction and parasocial relationships. PSI is a process that only occurs during media reception. Repeated consumption of media with constant social entities leads to differentiated schema creation over these personae and a so-called parasocial relationship (PSR; Hartmann et al., 2004). In contrast to PSI, this relationship still remains after media reception. PSI might lead to PSR and PSR affects PSI in case of a latter media reception. Despite their mutual influence there is a strict distinction between these constructs. Thus, measurements must be considered critically. Often used instruments like the PSI-Scale (Rubin, Perse, & Powell, 1985) define PSI as a long-term social involvement and thus do not measure PSI and PSR separately (Dibble, Hartmann, & Rosaen, 2015). Even if scales are used that measure PSI as a separate construct (PSI-Process Scales; Schramm & Hartmann, 2008; EPSI Scale; Hartmann & Goldhoorn, 2011), it is difficult to measure a process with a single questionnaire following the reception.

2.2. Addressing

In addition to the question of suitable measurement instruments, there are many studies that investigated triggers and reinforcing factors of PSI. One factor with a broad empirical basis is addressing (e.g., Cummins & Cui, 2014; Dibble et al., 2015; Hartmann & Goldhoorn, 2011). Hartmann and Goldhoorn (2011) argued that there are several cues provided by personae that

trigger automatic cognitive processes which cause PSI. These cues include physical orientation, eye-gazing or for example direct approach of the recipient. For the current investigation, all these potential cues are summarized in the concept of addressing. Cummins and Cui (2014) differentiated between two channels in verbal and bodily addressing. Verbal addressing refers to every auditory involvement of the recipient like talking to the viewer or concrete responses with “you” (parasocial communication; Blicke, 1999; Hartmann et al., 2004). In contrast, bodily addressing refers to the visual presentation of the character. Media figures can either be presented frontal to the camera or in lateral orientation. This involves a possible eye-contact with the recipient. Furthermore, the personae could not be on screen or presented in a large or small distance (obtrusiveness; e.g., Hartmann & Klimmt, 2005).

Hartmann et al. (2004) considered addressing as important trigger of parasocial processes within their two-level model of PSI. Hartmann and Goldhoorn (2011) operationalized bodily addressing with videos where the persona either was presented in front of the recipient and looked into the camera, or was shown from the side. The authors investigated the influence of orientation on PSI and found a significant medium effect size with respect to the frontal condition. Cummins and Cui (2014) and Dibble et al. (2015) clarified the positive influence of bodily addressing on PSI. Based on these empirical findings, bodily addressing was used in the current investigation to manipulate PSI.

2.3. Parasocial learning

How can PSI be combined with learning in multimedia? Lauricella, Gola, and Calvert (2011) examined the influence of parasocial processes on learning with infants. Twenty-one month old children learned better from known media figures within a video than with unknown personae. Results were complemented by Gola, Richards, Lauricella, and Calvert (2013) who pointed out that children's learning performance is increased from unknown personae over time, because of an emotional bond with these figures. In addition, Calvert, Richards, and Kent (2014) found that 18 month old children learn better with personalized personae. Personalization was operationalized through same sex, favorites (e.g., food, favorite song) and direct addressing by their names. These findings provide insights in parasocial processes in learning contexts. However, these studies investigated PSR rather than PSI and the toddler-samples might not allow for a generalization. Another approach is discussed by Brownlow (2014) who modified the communication circuit (Sabido, 2002) in terms of the roles of characters in educational videos. The author emphasized that PSI fosters learning through emotional processes of empathy and antipathy towards the personae. An induced sympathy towards the persona leads to reflection of the own behavior and approximation to the behavior of the persona. Thus, these emotional processes act as a stimulus for change. The parasocial nature allows a safe exploration of difficult experiences (Brownlow, 2015). However, the model is explorative and has no empirical support until now. Previous studies focused on affective variables (such as sympathy and aversion to a personae; Brownlow, 2015) as a key to enhance learning, but neglected other factors. Furthermore, parasocial processes might differ in terms of age and the educational context. In summary, research that investigates parasocial influences in learning processes is very specific and cannot be generalized. In order to get a better insight into the explanation and effects of PSL more general principles in multimedia learning can be taken into account.

It is possible that cognitive (Sweller et al., 2011) or meta-cognitive factors (Bannert, Hildebrand, & Mengelkamp, 2009) are affected by PSI. A possible explanation might be supplied by the

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات