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Why do we multitask with media? Predictors of media multitasking among Internet users in the United States and Taiwan

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ABSTRACT

The study explored how media and audience factors, such as country of residence, media ownership, polychronicity, or the preference to do multiple things at the same time, predict media multitasking behaviors and if different motivations to multitask mediate the effects of these factors. The study is based on a cross-cultural survey ($N = 1972$) that included respondents from the United States and Taiwan. The findings indicated that media ownership, polychronicity, and four motivations (control, entertainment, connection, and addiction) positively predicted media multitasking behaviors. The four motivations were also found to mediate the effect of media ownership. American respondents were higher polychronics and heavier multitaskers than their Taiwanese counterparts. In the Taiwanese sample, polychronicity and motivations increased the effects of media ownership on media multitasking. In the American sample, polychronicity contributed little to the effect of media ownership, and the mediating role of motivations decreased with the increase in the level of polychronicity.

1. Introduction

With the development of new technologies that offer consumers numerous ways to satisfy needs in information, communication, and entertainment, media multitasking has become an important object of exploration. While new, increasingly interactive electronic media provide individuals with terabytes of content, they also fight for people's time and attention. Although having unlimited media options, humans have limited time to process information they receive from multiple sources on a daily basis. Thus, they often multitask.

The habit of multitasking with media has increased significantly during 2000s with the growing uses of information and communication technologies (ICT; Roberts, Foehr, & Rideout, 2005). The growing body of literature on the topic focuses on three main areas: media multitasking patterns (Foehr, 2006; Rideout, Foehr, & Roberts, 2010), antecedents (Jeong & Fishbein, 2007; Wang & Tchernev, 2012), and effects (e.g., Wang et al., 2012; Zhang, Jeong, & Fishbein, 2010). Research about the patterns of media multitasking describes what media uses and other activities people tend to combine; and studies about antecedents and effects explore media multitasking predictors and outcomes. The outcomes of multitasking with media have been examined in multiple studies (e.g., Armstrong & Chung, 2000; Bowman, Levine, Waite, & Gendron, 2010; Furnham & Bradley, 1997; Furnham, Gunter, & Peterson, 1994; Jeong, Hwang, & Fishbein, 2010; Junco & Cotten, 2011; Levine, Waite, & Bowman, 2007; Pool, Koolstra, & van der Voort, 2003; Salvucci & Macuga, 2002; Salvucci, Markley, Zuber, & Brumby, 2007; Zhang et al., 2010), while the literature about predictors of media multitasking calls for further development. The present research contributes to the existing body of knowledge about media multitasking antecedents by examining media and audience factors that predict the extent of media multitasking in different cultures. Determining and understanding the context in which media multitasking is facilitated leads to better explanation of its outcomes and informs strategies to deal with the consequences of this increasingly popular media use behavior.

The present research offers a cross-cultural investigation of media multitasking behaviors and its antecedents. The study was conducted in two countries: United States and Taiwan, which allowed to compare the results on a macro, market, level. Media- and audience-level predictors of media multitasking, such as media ownership and polychronicity, or the preference to perform multiple things in the same period of time, were examined and compared cross-culturally. The study also explored what motivates individuals in two different countries to use media concurrently

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and tested whether such motivations mediate the effects of individual-level predictors on media multitasking (Fig. 1).

2. Literature review

2.1. Media multitasking model

Media multitasking is defined as engagement in several concurrent activities at least one of which is related to media use (Foehr, 2006; Vega, 2009). It can occur between multiple devices (e.g., using the Internet on a computer and watching television) as well as within one device (e.g., multiple windows open on a computer screen; Wallis, 2010; Yeykelis, Cummings, & Reeves, 2014). The present study focused on the former media multitasking type, which refers to using multiple media/devices in the same period of time.

Jeong and Fishbein (2007) proposed a model, which outlined the main factors affecting media multitasking behaviors. Referring to Webster's et al.'s (2000) model of exposure to media, the researchers attempted to explain how media as well as audience factors affect multitasking behaviors. Media factors were defined as a combination of structural factors, such as the access to technology and mediated contents on a market, and individual factors, such as media ownership. Media ownership in this context refers to individuals having or being surrounded by media rather than the overall media market situation. Audience factors included personal, non-media characteristics such as socio-demographic (e.g., age, gender, socio-economic status) and psychological (e.g., sensation seeking) predictors.

Jeong and Fishbein's (2007) model was used as a starting point in the present study to examine media multitasking antecedents on both media and audience levels. First, collecting data in two countries (United States and Taiwan) made it possible to include a structural, market-level factor in the model and allowed cross-cultural, cross-market comparisons. Second, the measure of media ownership as an individual media factor was adjusted by accounting for new media devices, services, and options that diffused on mass markets over the past few years (e.g., social media, tablet computers, smartphones). In addition to media ownership, such psychological predictor of media multitasking as polychronicity, which has not been yet tested as part of the media multitasking model, was explored. Third, the model was modified by including additional psychological predictors – motivations that drive individuals to multitask with media. Not only it was tested whether motivations directly affect the extent of media multitasking but also it was examined if they mediate the effects of media ownership on this media use behavior. The following sections discuss media ownership and psychological predictors, such as polychronicity and motivations. Demographic predictors, gender and age, were included in the model as control variables (Fig. 1).

2.2. Media ownership

Media ownership in the context of the present study is treated as an individual rather than structural variable and conceptualized as the availability of various media options to an individual. In other words, media ownership represents what media technologies/devices an individual has and/or to what extent s/he is surrounded by media (Foehr, 2006; Jeong & Fishbein, 2007).

While previous studies of media multitasking accounted for major media and technologies (e.g., TV, computer) available in different places (e.g., bedroom), they did not tap on new fast-evolving media forms, such as online social networking (Wallis, 2010), and options (e.g., browsing Internet on a phone). In addition, Rideout et al. (2010) suggested to take into consideration a range of places

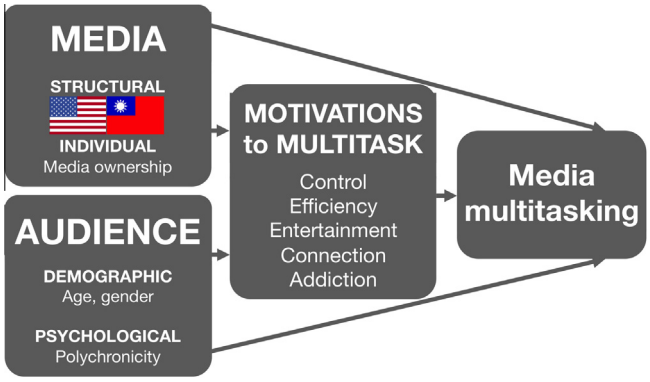

Fig. 1. Conceptual model of media multitasking.

where media are used: media used in homes (e.g., bedroom) and transit places (e.g., cars), as well as universally used mobile media (phones, laptops, tablets). Thus, the measure of media ownership was adjusted in the present study by including the diverse spectrum of media and technologies available to a modern consumer in different places. Participants answered questions about media present in individuals' homes, such as the number of TV sets, DVD payer, CD payer, desktop computer, Internet access in the house, and video game consoles. They were also asked about TV or DVD player installed in cars to account for media used in transit places. The list of mobile media possessions included laptop, tablet computers, mp3 player, and phone. Finally, respondents answered whether they could browse the Internet on their phones and reported how many social networking site accounts they had and actively used.

Greater availability of media devices to an individual on a daily basis increases engagement in media multitasking behaviors. For instance, a number of television sets in a household, the possession of a computer or laptop, and the availability of TV in one's bedroom were found to facilitate media multitasking (Foehr, 2006; Jeong & Fishbein, 2007). It was hypothesized:

H1. Media ownership will positively predict the extent of media multitasking.

2.3. Taiwan vs. the United States: Cross-border comparison

One of the factors included in Jeong & Fishbein's (2007) model is national market, which is considered a macro, structural antecedent of media multitasking. It is proposed that the effects of individual-level predictors on media multitasking will differ by this macro-level factor. Cross-country research outlined three types of country characteristics that are important in the discussion of media multitasking: technological development, political freedoms that allow unrestricted circulation of information, and culture (Kononova, 2013; Kononova, Zasorina, Diveeva, Kokoeva, & Chelokyan, 2014). These characteristics are discussed further in relation to the case of the United States and Taiwan.

Despite ICT markets do not develop at the same pace in different countries (Norris, 2001), the United States and Taiwan share many similarities with regard to technology access. Over 99% of households in Taiwan and the United States own a TV set (Nielsen, 2013; R.O.C. Directorate-General of Budget Accounting and Statistics (DGBAS), 2014). Desktop computers and/or laptops can be found in four out of five American households; and 72.2% of Taiwanese have a PC (desktop computer) in their homes (DGBAS, 2014; Nielsen, 2013). Internet penetration – by individuals