

I'll Have What She's Having: Parasocial Communication Via Social Media Influences on Risk Behavior

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Frequently people we interact with on social media influence decisions we make in daily life. This study explored the connection between parasocial interaction and imitative buying intentions in blog media space. Using a 2 (Stance: Anti, Pro) X 4 (Risk Behavior: Drinking, E-Cigarette, Product, Control) X 2 (Order) mixed factorial design experiment ($N = 63$), we focused on the influence of parasocial interaction (PSI) with a blogger on intent to buy products used in

a blog post among young women. The research found that those with higher PSI reported greater purchase intention for alcohol than those with lower PSI toward the blogger in the study. These results suggest PSI in social media spaces like blogging can be used to covertly encourage healthy behaviors.

Keywords: Parasocial interaction, bloggers, experiment, risky behaviors, health communication

Female binge drinking has gone up by 12% in the last decade, while the numbers for males stayed the same (Vestal, 2016). According to the Pew Charitable Trusts and the CDC, 1 of 8 women reported binge drinking according to a recent survey, and female college students show high rates of binge drinking (Vestal, 2016). This kind of behavior is known to be influenced by peers (Jamison & Myers, 2008; Byrd, 2016) and studies have shown that advertising and social media influence can help to prevent high-risk alcohol use (Thompson et al., 2013). One form of social media influence is parasocial interactions (PSI). Studies have found that consumers' attitudes about products mirror their favorite characters' products via parasocial interaction (Russell & Stern, 2006). The current study explored whether parasocial interaction with a popular female YouTube blogger, discussing the pros and

cons of alcohol use, would influence consideration of a potentially risky behavior, primarily alcohol purchase intention.

The overarching research question is whether parasocial interaction with a blogger influences the intent to participate in a risky behavior depending on how the behavior is conveyed by the blogger (i.e., pro or anti drinking messages). The findings of the study will provide a better understanding of the linkage between the perception of closeness to bloggers and persuasiveness, especially in the context of risk behavior related messages.

LITERATURE REVIEW

Blogger “Relationships”

Relationships between media users and media figures (even fictional characters found in books or cartoons) are referred to as parasocial relationships. Parasocial interaction describes one-sided relationships with celebrities, influencers, and other public figures (Hartmann, 2016; R.B. Rubin & McHugh, 1987). Traditionally, it was described as the illusion of a face-to-face relationship with celebrities, while it is mostly one-way conversation (Horton & Richard Wohl, 1956). Research suggests that frequent parasocial interaction can lead to an increase in the perception of intimacy (Perse & Rubin, 1989). In the age of social media, this one-sided relationship is increasingly relevant due to the emergence of “influencers” (Khamis, Ang, & Welling, 2017). These relationships often feel real to the media consumer but are one-sided interpersonal relationships (Horton & Wohl, 1956). Following YouTube bloggers is immensely popular with some bloggers posting daily content on YouTube, allowing for parasocial relationships to develop similar to the way people do with television characters. The study of parasocial relationships has focused largely on such relationships leading to media consumption under the uses and gratifications paradigm (Giles, 2002). There has been little research focused on the behaviors that may result from such relationships, especially in the context of social media. However, a recent study has found a positive relationship between attitude homophily and PSI with bloggers (Sokolova & Kefi, 2020), suggesting that PSI is a powerful predictor of behavior.

Parasocial Interaction

Some researchers have specifically studied how parasocial interaction and purchasing behavior are linked, for example via a positive relationship between impulse

buying and parasocial interaction with characters on TV shopping programs (Park & Lennon, 2004). Additionally, scholars found a positive relationship between parasocial interaction and the perceived convenience of TV shopping (Lim & Kim, 2011). Individuals can form parasocial relationships, which are essentially the sum of social responses and pseudo-interactions with media characters (Schramm & Wirth, 2010). Parasocial interaction can be conceptually defined as a component of a parasocial relationship (PSR); forming a PSR is similar to forming a friendship, in that one must interact with someone else to form a relationship. Parasocial interaction can be a powerful predictor of future behavior (Tian & Yoo, 2015). For instance, audience members parasocially interacting with radio show hosts predicted their planned and frequent listening (Rubin & Step, 2000). Viewers experience parasocial interaction with actors and popular figures to meet social needs (e.g., bloggers), even though it is a process that builds or creates a PSR. Previous research has established the influence of celebrities on behavior, such as laypeople imitating professional athletes (e.g., using Magic Johnson as an aspirational model for behavior; Brown & Basil, 1995; Brown, Basil, & Bocarnea, 2003). Likewise, female celebrities on popular television shows can communicate “psychosocial” product benefits and desirable visual presentations of clothing and makeup products (Stafford, Spears, & Hsu, 2003).

Celebrities and bloggers are encouraged to communicate casually and to imitate the image of a “real” friend to the public via social or blog media, by appearing to be candid and uncensored (Marwick & Boyd, 2011). Parasocial interactions become stronger when the viewer “forgets” that the person is in a television studio or somewhere behind the scenes in the case of YouTube bloggers (Horton & Wohl, 1956). This experience can be intensified by film effects, such as a character who is attractive to the viewer, directly facing the viewer or verbally addressing the viewer (Hartmann & Goldhoorn, 2011). These effects make the interaction more connected and more relatable. In the context of YouTube bloggers, Rassmussen (2018) demonstrated the phenomenon of parasocial interaction; participants reported that they felt like they knew the blogger and viewed the person as a friend.

The literature suggests that parasocial and real social relationships are similar, as both develop over time (Horton & Wohl, 1956; Meyrowitz, 1986; Nordlund, 1978; Perse &

Rubin, 1989). Viewers feel that they know the parasocial character like they know their real friends, although there is an absence of real two-way interaction (Perse & Rubin, 1989). Instead, the interaction is vicarious through the process of media viewing (Perse & Rubin, 1989).

Parasocial interaction, buying and consumption. Studies have shown that parasocial interaction and purchasing behavior are linked. For instance, there is a positive relationship between impulse buying and parasocial interaction with characters on TV shopping programs (Park & Lennon, 2004). Park and Lennon, for example, found a positive relationship between parasocial interaction, and watching TV shopping programs and watching TV in general. A more recent study found that there is a relationship between parasocial interaction and the perceived convenience of TV shopping (Marwick & Boyd, 2011). In a recent study on the influence of PSI with Instagram celebrities on female consumer behavior, the results revealed that higher PSIs led to more incentives to buy the products the influencers were wearing (Jin & Ryu, 2020).

It seems that consumers' attitudes about products mirror their favorite characters' products via parasocial interaction (Russell & Stern, 2006). This process occurs due to consumer attachment or a perceived friendship with characters from TV shows (Russell & Stern, 2006). These attachments grow over long periods of time, such as the run of a TV series, which can last up to 5-10 years or more for any given series (i.e., *Frasier* or *Friends*; Russell & Stern, 2006). This could also apply to the blogging setting. Over time, viewers feel that they get to know the characters and even live vicariously through the characters' lives (Russell, Norman, & Heckler, 2004). Viewers may begin to model characters' product consumption and use habits through parasocial interaction (Russell & Puto, 1999). This is an extension to the literature on spokespeople or "spokes-characters," who may influence positive brand attitudes because of their trustworthiness and relevance to brands (Garretson & Niedrich, 2004).

The Current Study Models: Risk Convergence And Elaboration Likelihood Model

People learn about most of society's risks (i.e., severe weather) through mass media. Individual views of risk are determined by the extent of the media coverage, how it is presented, and which interpretations are included concerning the characterization of the risk (Kasperson & Kasperson, 1996). Parasocial interaction with message authors

(bloggers) may enhance risk behavior (i.e., alcohol consumption), especially if there is a high level of parasocial interactions, leading to increased processing of the message more and more favorable views.

The present study contributes by exploring the connection between character parasocial relationships and imitative buying patterns or intentions in the social and blog media space. Recent research has shown that there is a link between parasocial interaction or parasocial relationships and like-character buying patterns (see Kim et al. 2015; Lee and Watkins, 2016; Hwang & Zhang, 2018, and Jin and Ryu, 2020). In contrast to previous studies, we are specifically interested in the intention to purchase risky and health-hazard products such as alcohol and e-cigarettes.

Thus, the following hypothesis and research questions are proposed:

RQ1: Will the pro-drinking post garner the most parasocial interaction response versus other posts?

H1: Participants with a higher level of PSI will have greater purchase intention for the products featured (e.g., alcohol) in blog posts.

The risk convergence model (RCM; So, 2012) has been used to study why and how depiction of risk events in mass media can influence the consumers individual risk perceptions. Specifically, the RCM states that the reduction of perceived social distance in relation to a media personality increases influence on personal risk perceptions. The model also suggests that the reduction of perceived social distance explains the influence of five audience variables that are known to increase personal risk perceptions, including personal relevance, identification, parasocial interaction, transportation, and perceived realism (So, 2012).

The Elaboration likelihood model (ELM; Petty and Cacioppo, 1986) is also relevant for the current study. The ELM states that in persuasion contexts, individuals process information through peripheral and central routes (Petty and Cacioppo, 1986). In our experiment, we predict that the women in our study are persuaded via peripheral cues (the feeling of connection to the blogger), which might precede more cognitive or rational arguments for risk behavior.

RQ2: What stances and/or topics will participants favor in terms of purchase intention?

H2: Stance and topic will interact with PSI, resulting in a Stance X Topic X PSI interaction where participants with higher PSI will be more likely to have greater purchase intention.

METHODS

Experimental Design and Stimuli

This study employed a 2 (Stance: Anti, Pro) X 4 (Risk Behavior: Drinking, E-Cigarette, Product, Control) X 2 (Order) mixed factorial design experiment ($N = 63$). Stance and risk behavior were within-subject factors. Stance had two levels: anti and pro. Risk behavior had four levels: e-cigarette, drinking, beauty product, and a news story. The news story was included as control comparison to the blog message type. Presentation order (2) was the only between-subjects factor. Each participant was randomly assigned to one of two orders. The video of the blogger was another control message that was shown before exposure to all other posts.

For the experimental stimuli, the researcher wrote a total of seven messages. They were text-based blog post messages: anti-e-cigarette (176 words), anti-drinking (188 words), anti-beauty product (160 words), a news article about the blogger and a beauty product she created (control condition, 160 words), pro-e-cigarette (152 words), pro-drinking (156 words), and pro-beauty product (177 words). All posts were written in the voice of the blogger and presented on her website design background as images on the TV screen in the lab. In addition to the posts, there was a YouTube video from the blogger's YouTube channel, which was downloaded from the blogger's channel ("My Morning Routine," 7 minutes, 24 seconds) and played at the very beginning of the experiment.

Study Participants

Female participants were recruited at a large Midwestern university via a mass email announcement service and were compensated with \$10 Target gift cards. Recruitment took place after IRB approval. Participants were instructed to email the researcher to sign up for a time. When the researcher received an email for sign-up, the researcher enrolled such participant for a one-hour time slot in a computer lab. A power analysis was performed a priori in G*Power software reflected a need for $N = 62$. This was achieved ($N = 63$). A sample size of $N = 30\sim 60$ is appropriate for a within subjects study (Potter & Bolls, 2012; Vanvoorhis & Morgan, 2007).

The participants, who all identified as female (women are more likely than men to form parasocial relationships, Schiappa, Allen, & Gregg, 2013), ranged in age from 18 to 24 ($M_{age} = 20$). Regarding year in school, 17.7% were freshmen, 30.6% were sophomores, 17.7% were juniors, 25.8% were seniors, 8.1% were graduate/professional students. Among them, 62.9% were White, 17.7% were Black, 4.8% were Hispanic/Latino, 12.9% were Asian, and 1.6% were Other. Students are an acceptable population for this study as the purpose of the study is to assess health-related persuasion strategies on this susceptible group.

Experimental Procedure

Upon entering the lab, the participant read and signed a consent form. The participant answered questions about current parasocial interaction using MediaLab software in regard to the beauty and lifestyle blogger after the researcher instructed her to sit in the participant room.

The participant then saw a video of a popular beauty blogger's morning routine from the blogger's YouTube channel to orient her to the blogger in an interactional way. This was done to establish parasocial interaction with the participant and to amplify any pre-existing parasocial interaction with the blogger. This video, with the blogger facing the participant, was chosen because this kind of addressing is related to higher PSI responses (Hartmann & Goldhoorn, 2011).

Next, the participant was exposed to seven written blog posts. After completing each story, the participant reported the level of perceived interaction with the blogger and her purchase intention for the product featured in the message. At the completion of the seven stories, the participant answered demographic questions. Upon the completion of the experiment, each participant was given a \$10 Target gift card as compensation for participation.

Independent Variables

Topic. Topic was defined as the type of health behavior shown in the message. This included e-cigarette presence, drinking/alcohol presence, no health related behavior in the blog post (beauty products were discussed in these product messages), or control (a news post and a video post).

Stance. Stance was defined as the view of the author in the messages regarding health behaviors such as pro-behavior, anti-behavior, or no behavior/control (e.g., the news story). This was created for each health behavior tested in the study except for the news story about a beauty product and the blogger video (e.g., pro- and anti-drinking, pro- and anti-e-cigarette, pro- and anti-product).

Pre-existing Parasocial interaction (measured before exposure to posts). Parasocial interaction was defined as mediated interactions that potentially lead to the forming of parasocial relationships (PSRs) perceived by the viewer or media consumer (Schramm & Wirth, 2010). This was measured by having participants respond to 19 items from the Tsay and Bodine parasocial interaction measures and the Auter and Palmgreen audience-persona interaction scale (Auter & Palmgreen, 2000; Tsay & Bodine, 2012). These were measured on a 7-point scale ranging from 1 = *strongly disagree* to 7 = *strongly agree* and averaged for the measure ($\alpha = .96$). It ranged from 1.00 to 5.16. Using a median split, higher PSI group ($M = 3.59$) and lower PSI group ($M = 1.74$) were created for the analysis.

Dependent Variables

Parasocial interaction measured after each post. This was measured by having participants respond to 13 items from the Tsay and Bodine and Auter and Palmgreen scales after each post (Auter & Palmgreen, 2000; Tsay & Bodine, 2012).

Purchase intention. This was measured by asking if participants planned to purchase alcohol (and e-cigarettes, beauty products) in the next 30 days, with a 7-point scale from 7 = *Strongly agree* to 1 = *Strongly disagree* (Berg, Barr, Stratton, Escoffery, & Kegler, 2014).

RESULTS

Research Question 1 asked whether the pro-drinking post would garner the most parasocial interaction response versus other posts. Answering RQ1, a Stance X Topic 2-way interaction was also statistically significant ($F(3, 151) = 32.65, p < .001, \eta_p^2 = .35$). The video (“My Morning Routine”) had the highest PSI response ($M = 3.70, SD = 1.31$), followed by the anti-e-cig post ($M = 3.66, SD = 1.30$). See Table 1 for the other means and standard deviations.

Table 1 *Stance x topic interaction on parasocial interaction means and standard deviations*

Stance	Topic	Mean	Standard deviation
Anti	drinking	3.40	1.27
	e-cig	3.66	1.30
	product	3.48	1.27
Pro	drinking	2.83	1.21
	e-cig	2.65	1.17
	product	3.45	1.25
	video	3.70	1.31
	news story	3.40	1.30

Hypothesis 1 stated that there would be a main effect of blogger PSI level on purchase intention, such that participants with higher PSI would be more likely to have greater purchase intention for the products featured. H1 was supported. There was a statistically significant main effect of PSI on purchase intention, ($F(1, 60) = 7.96, p < .01, \eta_p^2 = .12$); higher PSI participants ($M = 2.65, SD = 1.16$) had greater intention than the low PSI group ($M = 2.06, SD = 1.16$). Research question 2 asked what stances and/or topics participants would favor in terms of purchase intention, shown by a Stance X Topic 2-way interaction. A Stance (2) X Topic (4) interaction was run (repeated measures ANOVA) to answer RQ1. There was a statically significant Stance X Topic 2-way interaction ($F(3, 154) = 6.61, p < .01, \eta_p^2 = .10$) where the pro-drinking post received the most purchase intention (see Table 2).

Table 2 *Stance x topic interaction on purchase intention means and standard deviations*

Stance	Topic	Mean	Standard deviation
anti	drinking	2.98	2.13
	e-cig	1.16	.80
	product	1.37	.69
pro	drinking	3.48	2.23
	e-cig	1.40	1.15
	product	2.61	1.61
	video	2.90	1.70
	news story	2.90	1.71

Hypothesis 2 stated that stance and topic would interact with PSI, resulting in a Stance X Topic X PSI interaction where participants with higher PSI would be more likely to have greater purchase intention. A repeated measures ANOVA was run in order to ascertain what stances and topics among high and low PSI groups were favored in terms of purchase intention.

There was a statistically significant PSI X Stance X Topic 3-way interaction ($F(3, 154) = 5.39, p < .01, \eta_p^2 = .08$) on purchase intention. High PSI participants had the highest purchase intention after pro-drinking messages (see Table 3).

Table 3
PSI x stance x topic on purchase intention means and standard deviations

PSI	Stance	Topic	Mean	Standard deviation
low	anti	drinking	3.13	3.02
		e-cig	1.00	1.13
		product	1.19	.98
	pro	drinking	2.90	3.16
		e-cig	1.23	1.62
		product	1.87	2.28
high	anti	drinking	2.84	3.02
		e-cig	1.32	1.13
		product	1.55	.98
	pro	drinking	4.07	3.16
		e-cig	1.58	1.62
		product	3.36	2.28

DISCUSSION

The current study explored if and when bloggers' output influences the intention to purchase beauty items and risky products (i.e., alcohol). The results show that bloggers could be influential in terms of health communication, but perhaps in negative ways, since higher PSI participants reported greater purchase intention for alcohol after reading a pro-drinking blog post. They also reported highest purchase intention for alcohol products in general (not accounting for PSI).

Hypothesis 1 stated that participants with higher PSI would be more likely to have greater purchase intention for the products featured (i.e., express purchase intention); this was supported by a between-subjects effect of PSI on purchase intention. These results are aligned with the literature in which parasocial interaction has been found to lead to purchasing behavior in the TV media space (Lim & Kim, 2011; Park & Lennon, 2004), on Instagram (Sokolova & Kefi, 2020), Twitter (e.g., Azzman & Manaf, 2017), and on YouTube (Rasmussen, 2018).

The Stance X Topic X PSI interaction further illuminated that high PSI participants had the highest purchase intention after pro-drinking messages. There was also a Stance X Topic interaction on purchase intention. The Stance X Topic interaction showed that the pro-drinking post received the most purchase intention. The findings overall demonstrate that PSI could be a mechanism through which actual behavior could occur in the future, especially in regard to the RQ1 findings, in that the pro-drinking post did not garner the most PSI response as a dependent variable versus the other posts. The researchers posit that the control/news post received the highest mean PSI response ($M = 3.70$; $SD = 1.31$) because PSI is more powerful in this case as a trait variable influencing purchase intention. This information is useful to health communication in that PSI may lead to behaviors that bloggers recommend (e.g., healthy or unhealthy behavior). However, it is troubling that pro-drinking messages may persuade young women to purchase alcohol through PSI with bloggers or media persona.

The findings depict that bloggers can covertly or less obviously sell alcohol along with lofty beauty ideals. The RCM and the ELM can help us understand the findings and help us to put theory into practice. As discussed above, the risk convergence model (RCM; So, 2012) refers to how communicated risk events in social media can affect the consumers' risk perceptions. Specifically, the RCM helps to explain our results in the context of decreased personal risk. Thereby, we suggest that a reduction of perceived social distance via PSI towards a media personality lowers personal risk perceptions, leading to increased intentions to purchase alcohol after being exposed to pro-drinking messages. Thus, the effect of PSI on behavior can lead to negative consequences such as alcohol consumption, but it could also be used in a positive way by promoting healthy behaviors, such as joyful movement or healthy eating. Our results also fit with the ELM (Petty and

Cacioppo, 1986), especially concerning the peripheral route. We suggest that the women in our study experienced PSI and built a short-term relationship with the blogger, which represents peripheral route processing, overriding cognitive processing of arguments in the messages. However, tapping into the peripheral route can be used to the persuasive advantage of promoting healthy, prosocial behaviors in social media.

Media blogging could be an avenue to reach young media consumers or blog followers for the sale of helpful products or healthy advice—aiding the self to expand by benefitting the individual and exposing health threats. The challenge will be to reach an appropriate balance of entertainment and education, with a salient, believable health message, without being overly “preachy” (Moyer-Gusé, 2008). To be persuasive, a health-promoting message would have to pass the test of not being perceived as an agenda, or as patronizing and condescending. It will be important to measure the extent to which media consumers feel that a program attempts to persuade.

Limitations

There are a few limitations regarding external and internal validity. Regarding external validity, the study may not be externally valid to the general population because this is an experiment, but the study can achieve theoretical generalizability (i.e. RCM and ELM). Lang (1996) emphasized that the use of a convenience sample can allow researchers to make meaningful statistical inferences relative to theory. Concerning internal validity, there may be high internal validity because the experiment was mostly controlled; extraneous variables were probably not causing the outcome. There may be some issues with this because participants were exposed to a multitude of other media in addition to assigned treatments as a part of daily life.

This study is also limited because it explored responses to one blogger and mostly to text media. In the future, more research should be done on other types of blog content on varying levels of parasocial interaction in individuals, among other concepts (e.g., identification, liking, etc.). One limitation in our study is that the experimental stimuli were created, instead of real messages pulled from widely known YouTubers or social media influencers. We also did not include exposure other risky behaviors, such as regular cigarettes or specific products such as Juul.

Future Research

This study explored responses to one blogger and mostly to text media. In the future, more research should be done on other types of blog content on varying levels of parasocial interaction in individuals, among other concepts (e.g., identification, liking, etc.). It may also be interesting to test other modalities and other types of photo blog content, for example, videos or podcasts, and other media platforms, such as TikTok.

The current experiment could lead to more research on social media and other forms of covert health related sponsorships and marketing. The results show that there is a possibility of using media blogs through which positive health communication can take place. Future research could also focus on whether bloggers can be used to foster healthy attitudes toward behaviors such as plastic surgery, dieting, exercise, tanning, etc., or political issues such as climate change. Besides PSI levels, other personality traits could contribute to the likelihood that an individual will follow the risk behavior of a blogger or any other personality in social media.

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