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Audience Prototypes and Asymmetric Efficacy Beliefs

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Abstract: Prior research suggests that the third-person effect is related to media schemas, for example, that general audiences are vulnerable to influence. The current study evaluates whether the effect of media schemas depends on more specific audience schemas. Participants read vignettes of four "actors" in a 2 (gullible vs. critical-minded) × 2 (heavy vs. light Internet users) repeated measures experiment and rated how much the actors can resist the influence of media and how much they benefit from censorship. For comparison, participants rated themselves on the same dependent variables. Results show that gullible heavy Internet users are perceived to have the greatest self-regulatory inefficacy and benefit the most from censorship, while the opposite outcome is true for critical-minded light Internet users. These patterns remain when evaluating self–other asymmetric efficacy beliefs, which I discuss in relation to motivational and cognitive processes underlying the third-person effect.

Keywords: third-person effect, Internet use, gullibility, efficacy, censorship

The third-person effect (Davison, 1983) has become a prominent area of mediated communication research (Perloff, 1999). At its core is *third-person perception* (TPP), or individuals' beliefs that they are less influenced than others by media content, especially when the perceived influence is undesirable. The best-documented outcome of TPP is support for censorship, which is an example of a third-person *effect* (Feng & Guo, 2012; Xu & Gonzenbach, 2008). The third-person effect may result in various attitudinal and behavioral responses directed at restricting or correcting what individuals view as negative influence on others (Rojas, 2010; Sun, Shen, & Pan, 2008).

The psychological basis of this phenomenon is the focus of many research studies, which frequently highlight the role of message desirability in TPP (Sun, Pan, & Shen, 2008). Other research has examined how perceived characteristics of media audiences affect the formation of TPP, emphasizing individuals' mental representations of media audiences (Lambe & McLeod, 2005; Scharrer, 2002). Such mental schemas can inform beliefs about other media users and how particular media content may influence them. More recently, research expanded the third-person effects model to address perceived self-regulatory inefficacy and censorship efficacy as antecedents of the third-person effect (Rosenthal, Detenber, & Rojas, 2015). That work described support for censorship as being related not only to beliefs about the influence of media on others, but also to beliefs that others are unable to protect themselves from influence and that censorship can protect them.

These efficacy-related beliefs may draw on intuitive theories about the media, which some researchers have described as media schemas (Meirick, 2006; Price, Huang, & Tewksbury, 1997). The effect of media schemas on third-person perception may occur through self–other differentiation and through attention to characteristics of specific audiences (Andsager & White, 2007). Further attention to the role of specific audience schemas can supplement prior research and further decipher whom individuals imagine as being susceptible to the influence of undesirable media content. Individuals may use this information when estimating the benefits of censorship for those audiences.

The current within-subjects experiment manipulates characteristics of hypothetical audience members with respect to their gullibility to persuasion and the amount of time they spend using the Internet. The purpose of this experiment is to understand how perceived influence on media audiences may depend on the instantiation of particular audience schemas. Since audience schemas may be regarded as a category of media schemas, this study conceptually replicates prior research in that domain. Whereas prior research has typically measured perceived influence on broad categories of audiences, the current study measures perceived influence on exemplars of media users. Thus, the results of this study may show uniquely how individuals use audience schemas to deduce the influence of media on specific others. The following sections discuss sources of perceptual asymmetry and the

roles of audience schemas and efficacy beliefs in the third-person effect.

Sources of Perceptual Asymmetry

TPP is a well-documented asymmetric belief that the media influence others more than the self (Shen, Pan, & Sun, 2010; Sun, Pan, et al., 2008). Although the current study does not evaluate TPP directly, understanding why such biased perception occurs is necessary for defining some later concepts.

One account of TPP describes it as emerging from individuals' motivations to hold themselves in a favorable light. This tendency is well established (Brown, 1986; Mezulis, Abramson, Hyde, & Hankin, 2004), and may lead individuals to overestimate the chances of positive outcomes resulting from their behaviors (Miller & Ross, 1975). Such a self-enhancement motivation helps to explain why TPP is most pronounced in the context of undesirable media content, where resisting influencing may be regarded as smart or beneficial (Andsager & White, 2007). Central to this motivational perspective is the notion that, by regarding themselves as immune to the influence of undesirable media content, individuals manifest thoughts that are consistent with a positive view of the self.

There is a complimentary view to the motivational explanation of TPP, which emphasizes the interplay of introspection and lay theorizing: Individuals' self-serving motivations may induce memory distortions that exaggerate positive personal attributes (Willard & Gramzow, 2008). Consequently, individuals' reflections about their own media use may favor memories that suggest their resistance to influence. However, the same introspective process is not useful for explaining others' thoughts and behaviors (Pronin, 2008, 2009), perhaps because other-directed introspection is more cognitively demanding (Kreplin & Fairclough, 2015). Beliefs about the influence of media on others draw on a different source of information. Some scholars have suggested that this source of information comes from laypersons' intuitive theorizing about "powerful effects" of media on general audiences (Eveland, Nathanson, Detenber, & McLeod, 1999; McLeod, Detenber, & Eveland, 2001; Paek, Pan, Sun, Abisaid, & Houden, 2005). If individuals believe that media have powerful effects, but that they are themselves immune to those effects, then it follows that media are influential because they affect other people. As Andsager and White (2007) put it:

> "A person who has been exposed to pornography and has noted no changes in his or her own behavior may conclude that inasmuch as pornography, which is a societal problem after all, does not affect me, it must be a problem because it affects other people." (p. 18)

This interplay of introspection and lay theorizing suggests that TPP arises from the combination of a heuristic self–other differentiation (i.e., "they aren't me") and a more systematic evaluation of perceived audience characteristics that implicate others' vulnerability to influence (Andsager & White, 2007). Regarding the more systematic evaluation, there is a close correspondence between actors' performance of undesirable behaviors and observers' attribution of personality traits to explain the behaviors (Trope, 1998). In the context of media-related behaviors, TPP may involve similar trait-based characterizations of imagined audiences, which suggests a role of audience-related mental schemas.

Audience Schemas

In short, *audience schemas* are mental representations of media audiences, and can be understood from the framework of schema theory (Bartlett, 1932/1972; Brewer, 1987; Brewer & Nakamura, 1984; Rumelhart & Ortony, 1977). Schema theory describes mental structures that represent events, places, objects, social roles, and other concepts held in long-term memory. Individuals form schemas through an ongoing process in which new, or *episodic*, information gains meaning by its association with prior knowledge. This prior knowledge may be contained in one or more schemas that are brought into working memory, or *instantiated*, in relation to the episodic information (Brewer, 1987). When the episodic information contains novel attributes of what is experienced, the instantiated schema(s) may be updated with that information (Brewer & Nakamura, 1984). Ultimately, a schema amalgamates attributes from multiple experiences of a concept, which together represent the concept as a generalized *prototype*. Because a prototype is a generic representation of a concept, it provides a mental framework for efficiently encoding related episodic information.

As previously noted, TPP may arise from individuals' distorted sense of invulnerability, self-differentiation from a mass audience, and attention to characteristics of particular types of audiences. The latter source of influence may require individuals to access mental representations of other people with respect to media use, which suggests a kind of schema instantiation. Prior research has described such mental representation as a type of *media schema*, measuring the construct, for example, as the belief that "most people blindly accept things they hear about" (Meirick, 2006; Price et al., 1997). While such media schemas may be useful for individuals to differentiate

themselves from general audiences, they may be less useful for defining specific audience prototypes. The current study is interested in the variety of schemas that contain specific attributes of types of media audiences. Defining such audience schemas is straightforward, since they may be regarded as a subtype of *person schemas*.

Person schemas represent trait-based prototypes of people, which individuals construct from their experiences with others and may use to anticipate and make predictions about social interactions with specific types of people (Augoustinos & Walker, 1995). In this way, audience schemas are collections of person attributes, some of which are trait-based, which together constitute prototypes of media audiences. These schemas may be useful for predicting the influence of certain kinds of media content on prototypical audience members.

Representation of Prototypes

In an early study of trait-based prototypes, Cantor and Mischel (1977) produced textual characterizations of an introvert and an extrovert, each containing 10 adjectives of varying heuristic association with introversion and extroversion. After reading the descriptions, participants reviewed a list of 62 adjectives, rating their confidence that each was contained in either the introvert or extrovert description. Participants' tended to assign confidence erroneously to nondescription adjectives that were at least moderately associated with introversion or extroversion. That is, participants had associated the characters not only with the adjectives in the descriptions, but also with the respective prototypes of which a larger set of adjectives had generic representativeness. Furthermore, this study showed that simple adjective-based characterizations of individuals may be sufficient episodic input to instantiate related person schemas, which may inform subsequent judgments about the characterized individuals. Other research has suggested similarly that individuals tend to express person schemas using trait adjectives (e.g., Gregg, Hart, Sedikides, & Kumashiro, 2008).

Efficacy Beliefs

The current study evaluates audience schemas that may indirectly affect support for censorship as a third-person effect, focusing on schema-related perceptions of self-regulatory inefficacy and censorship efficacy. Rosenthal et al. (2015) found that support for censorship of sexual content in films was related to beliefs that, relative to the self, others are less able to cognitively resist being influenced by such content and more effectively protected by censorship from harmful influence. Efficacy beliefs about general media audiences may correspond to a type of media schema, while the self–other asymmetry suggests a more self-enhancing motivational basis of the third-person effect. The following sections briefly define both kinds of efficacy beliefs before turning attention to the potential role of audience schemas in their formation.

Self-Regulatory Inefficacy

In the context of media, *self-regulatory inefficacy* is concerned with an inability to exert mental control over the effects of media content. People who have self-regulatory inefficacy may lack the cognitive wherewithal to cope with undesirable media content when they encounter it. Self-regulatory inefficacy is conceptually related to self-efficacy, that is, individuals' ability to respond adequately to particular situations (Bandura, 1982), and self-regulation, which concerns the purposive direction of anticipatory actions (Bandura, 1991). In the context of media, LaRose, Mastro, and Eastin (2001) described Internet self-efficacy as a critical antecedent of Internet use, and Internet addiction as an outcome of ineffective self-regulation. One interpretation of their findings is that, given individuals' exposure to media content and their self-regulatory inefficacy, their reaction to the content may be maladaptive and result in an undesired outcome.

Censorship Efficacy

The second efficacy-related concept has straightforward meaning. *Censorship efficacy* refers to the belief that government regulation of media effectively limits public access to noxious media content. Initial reflection on the nature of censorship efficacy may suggest its similarity to outcome efficacy (Bandura, 1977) or response efficacy (Rogers, 1975), which express beliefs that a course of action will result in a desired outcome. However, censorship efficacy is not about personal outcomes of individuals' media-related behaviors, but rather about the societal outcomes of media censorship as an institutional process. Thus, it might be regarded as a kind of institutional efficacy.

Perceived institutional efficacy expresses the belief that social processes instituted within the framework of government can achieve desired political outcomes (Wolfsfeld, 1986, p. 108). There are two ways of interpreting this definition of institutional efficacy with respect to public support for censorship: First, individuals may support censorship because they feel that public support is necessary for the government to enact or maintain censorship. Second, individuals may support censorship because they feel censorship effectively protects the public from undesirable media content. Rosenthal et al. (2015) defined censorship

efficacy with respect to the latter interpretation, citing examples from other research where the public is more supportive of government actions they are confident will protect society from potential harm.

Efficacy Beliefs and Audience Schemas

While the presence of asymmetric efficacy beliefs supports a motivational account of the perceptual bias (see Rosenthal et al., 2015), mental representations of media audiences may affect the magnitude of the asymmetry. Evidence for this process might account for perceived characteristics of specific media audiences; thus, an examination of audience schemas can clarify the more systematic-cognitive explanation of the third-person effect. Although audience schemas may reflect a vast number of person attributes, the current study examines perceived media audiences with respect to their critical-mindedness and amount of Internet use. These two characteristics align well with recent theorizations about perceived audiences.

Critical-Mindedness

There is growing evidence that TPP is larger when perception of others is consistent with a "gullible audience" schema (Andsager & White, 2007; Meirick, 2006; Price et al., 1997; Sun, Pan, et al., 2008). Similarly, Douglas, Sutton, and Stathi (2010) found that TPP of advertising influence is related to the belief that others have low need for cognition and are weak-minded. These beliefs may be related to perceptions of others' critical-mindedness, or lack thereof, which Freeman (1956, p. 104) defines as: "the ability to judge the merit or quality of something, this 'something' being anything from an idea or method to a work of literature or an article of furniture." Thus, critical-minded audiences are especially capable of engaging in systematic and purposeful media use, and also of identifying and avoiding media messages that may have deleterious effects. On the other hand, lack of critical-mindedness is related to gullibility (Standing & Huber, 2003), and audiences who are uncritical in their media use may be more susceptible to influence. Such audiences may be less capable of self-regulation and have more to benefit from censorship. Thus, individuals will perceive prototypically gullible others as having greater self-regulatory inefficacy (Hypothesis 1) and as benefiting more from censorship (Hypothesis 2) than those who are critical minded.

Internet Use

A more superficial description of audiences may simply refer to how much they use media, which researchers have associated with the third-person effect. Eveland et al. (1999) found that, in the context of undesirable music genres, university students had weaker TPP when rating others 8 or 40 years their senior than when rating others 4 or 8 years their junior. The authors attributed this difference to the belief that the former group of individuals are not typical listeners of the genres under study. Eveland and Nathanson (1997) suggested that TPP is greater when others are perceived to be the intended audience of the message. Drawing on this prior research, Rosenthal et al. (2015) found that perceptions of others' high exposure to sexual content in films was related to both kinds of efficacy beliefs. They explained its relationship with perceived self-regulatory inefficacy as reflecting more general self-inefficacy and its relationship with censorship efficacy as simply that censorship cannot be effective if exposure is already low. Consistent with these findings, individuals will perceive prototypical heavy Internet users as having greater self-regulatory inefficacy (Hypothesis 3) and as benefiting more from censorship (Hypothesis 4) than light users.

Method

I employed a repeated measures experiment for hypothesis testing. There were two rationales for choosing this method. First, there are statistical concerns about how best to compute and analyze perceptual asymmetries (Schmierbach, Boyle, & McLeod, 2008; Sun, Shen, et al., 2008). By measuring perceptions of others multiple times and measuring self-perceptions only once at the end, participants serve as their own control when testing for treatment effects. As a result, treatment effects on a perceptual asymmetry (i.e., other- minus self-perception) can be known simply by analyzing perceptions of others (i.e., other-perception). There is no need to directly model the asymmetry. Second, repeated measures designs require a smaller sample than between-subjects designs in order to achieve sufficient statistical power. In order to test the current model using a between subjects design, power analysis in G*Power recommends a sample size of 279 for detecting a medium effect size (Cohen's f = .25) with alpha error probability of .05 and power of .95. Alternatively, a repeated measures design requires a sample size of 41 to obtain the same outcome.[1] One drawback of repeated measures designs is that exposure to one condition may influence responses to subsequent conditions. In order to

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[1] This estimation makes a conservative assumption of low autocorrelation (r = .10).

reduce the potential for such carryover effects, the current study uses random permutation to balance the order of experimental conditions.

Participants

A random sample of 200 undergraduate students at a large university in Singapore received an invitation to participate in the study.[2] The e-mail described the study, its duration (about 30 min), the cash incentive (S $20), and a link to register. A total of 72 participants registered, who ranged in age from 19 to 27 ($M = 21.99$, $Mdn = 21$, $SD = 1.73$), were predominantly female (61%), and reported a moderate amount of daily leisure Internet use ($Mdn = 4$ hr).

Materials

Participants received a nine-page printed booklet. Each of the first eight pages began with a two-sentence vignette of a man ("actor") in his early 20s or early 40s. Each vignette contained a random combination of the two experimental manipulations suggesting the actor's critical-mindedness and amount of Internet use. Age group was a third factor in the study design, which the current study excludes from results reporting. Table 1 contains examples of the vignettes. After reading each vignette, participants completed the manipulation checks and responded to items measuring perceived self-regulatory inefficacy and perceived censorship efficacy. On the final page, participants responded to the dependent variables in reference to themselves.

Manipulations

The manipulations of perceived Internet use and perceived critical-mindedness were based on an online pilot study of 212 undergraduate communication students. For the former manipulation, I intuitively generated four descriptions each of high Internet use (e.g., "every day for several hours") and low Internet use (e.g., "for less than an hour a day"), which completed the statement, "Imagine a man who uses the Internet [insert description]." The questionnaire randomly presented respondents with one of the eight statements, which they rated on a 5-point scale as describing a (1 =) *very light Internet user* to a (5 =) *very heavy Internet user*. One-sample t tests compared sample means for each description against the middle response value

(3 = *moderate Internet user*). Results supported the wording for all but one low-use description, "a couple hours a day," which I replaced with the face-valid description, "infrequently."

For the manipulation of critical-mindedness, participants read the statement, "Media literacy is the ability to access, analyze, evaluate, and create media. Media-literate youth and adults are better able to understand the complex messages we receive from… [many] forms of media" (Media Literacy Project, n.d.). Following this statement, participants listed two adjectives each for someone who has high media literacy and someone who has low media literacy. Although the questionnaire had asked respondents to list adjectives related to media literacy, analysis of their responses suggested conceptual alignment with critical-mindedness as used presently. I selected the four most common adjectives each for high (e.g., *a critical thinker*) and low (e.g., *gullible*) critical-mindedness.

Randomization

I formatted the study booklet in Excel to accommodate a complex randomization scheme. Within each booklet, each vignette drew randomly without replacement from the four variations of each level of each manipulation, as well as from eight ages and eight male names. This scheme ensured that none of the elements of a vignette on one page were repeated on another page. A barcode at the bottom of each page tracked the combination of manipulations for use during data restructuring. The vignettes in Table 1 show a single permutation based on this randomization scheme.

Procedure

The experiment took place in a 15-cubicle research laboratory over the course of three consecutive weekday afternoons. Each 30-min session began with a brief visualization exercise, whose purpose was to promote mental imagery and schema instantiation when reading the eight vignettes. Following this exercise, participants received the study booklet and brief verbal instructions. Upon completion, participants returned the booklet and collected their cash incentive. I used a digital scanner and an optical mark recognition software utility to input the data into a spreadsheet. Spot-checks compared physical page booklets with data in the spreadsheet to ensure scanning fidelity.

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[2] The sampling frame consisted of the list of all undergraduate student e-mail addresses. I used Microsoft Excel to randomize the order of the list, from which I selected the first 200 emails to receive the study invitation.

Table 1. Sample vignettes from study booklet

Booklet page	Critical-mindedness	Internet use	Vignette
1	Low	High	Andrew is a 42-year-old who surfs the Web more than 6 hours a day. People who know Andrew consider him to be ignorant.
2	Low	High	Edmund is a 22-year-old who surfs the Web more than anyone he knows. People who know Edmund consider him to be simple minded.
3	High	Low	Jason is a 23-year-old who uses the Internet only occasionally. People who know Jason consider him to be analytical.
4	High	High	Kevin is a 20-year-old who's online every day for several hours. People who know Kevin consider him to be well educated.
5	Low	Low	Kenneth is a 43-year-old who browses websites infrequently. People who know Kenneth consider him to be gullible.
6	Low	Low	Patrick is a 21-year-old who browses websites for less than an hour a day. People who know Patrick consider him to be naïve.
7	High	Low	Vincent is a 40-year-old who's online a lot less than most of his friends. People who know Vincent consider him to be knowledgeable.
8	High	High	Steven is a 41-year-old who uses the Internet during most of his free time. People who know Steven consider him to be a critical thinker.

Dependent Variables

Perceived Self-Regulatory Inefficacy

Participants responded to the question, "[Actor/I] can easily resist being influenced by online content." Reverse-coded response options ranged from 1 (*strongly agree*) to 5 (*strongly disagree*), where a higher score corresponds to greater inefficacy. These single-item measures indicated perceived self-regulatory inefficacy of others ($M = 3.03$, $SD = 0.55$) and of the self ($M = 2.74$, $SD = 0.96$).

Perceived Censorship Efficacy

Participants responded to the question, "[Actor/I] would be better off if [his/my] access to some websites was restricted." Response options ranged from 1 (*strongly disagree*) to 5 (*strongly agree*), where a higher score corresponds to greater efficacy. These single-item measures indicated perceived censorship efficacy for others ($M = 2.78$, $SD = 0.51$) and for the self ($M = 2.72$, $SD = 1.33$). Note that this operational definition of censorship efficacy indicates how much censorship benefits certain media audiences.

Results

Manipulation Checks

The manipulation checks employed two Likert-type items (1 = *strongly disagree* to 5 = *strongly agree*), which were dependent variables in separate repeated measures ANOVAs. Responses to the statement that the actor "has complex thoughts and ideas" were significantly different between low ($M = 2.32 \pm 0.14$, $SD = 0.58$) and high

($M = 4.08 \pm 0.12$, $SD = 0.49$) critical-mindedness conditions, $F(1,71) = 388.67$, $p < .001$, $\eta_p^2 = .85$.[3] This result suggests a differentiation between deep and superficial thinkers, which is consistent with a manipulation of critical-mindedness. Responses to the statement that the actor "is a heavy Internet user" were significantly different between light ($M = 1.86 \pm 0.10$, $SD = 0.43$) and heavy ($M = 4.02 \pm 0.10$, $SD = 0.44$) Internet use conditions, $F(1,71) = 804.20$, $p < .001$, $\eta_p^2 = .92$. This result suggests the manipulation of Internet use was successful.

Strength of Mental Imagery

As a crude measure of schema instantiation, participants indicated their agreement with the statement, "I have a clear mental image of [actor]." Response options ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). One-sample t tests compared mean scores with the middle response value (3 = *neutral*). Results show positive agreement for all eight prototypes, with mean scores ranging from 3.33 ($SD = 0.90$) to 3.72 ($SD = 0.81$) being significantly larger than the test value (all p values < .003). Repeated measures ANOVA showed an effect of Internet use, where participants reported a clearer mental image of heavy ($M = 3.62 \pm 0.12$, $SD = 0.51$) than light ($M = 3.45 \pm 0.13$, $SD = 0.53$) Internet users, $F(1,71) = 9.89$, $p = .002$, $\eta_p^2 = .12$. Otherwise, there were no significant treatment effects.

Hypothesis Testing

Hypotheses 1 and 2 predicted effects of perceived audience prototype on perceived self-regulatory inefficacy, while

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[3] Ranges of values (e.g., 2.32 ± 0.14) about an estimate indicate the 95% confidence interval of the estimate.

Hypotheses 3 and 4 predicted effects on perceived censorship efficacy. Repeated measures ANOVA tested the hypotheses.

Consistent with Hypothesis 1, participants rated gullible actors as having greater self-regulatory inefficacy ($M = 3.48 \pm 0.16$, $SD = 0.67$) than critical-minded actors ($M = 2.60 \pm 0.16$, $SD = 0.68$), $F(1,71) = 54.41$, $p < .001$, $\eta^2_p = .43$. Consistent with Hypothesis 2, participants rated heavy Internet users as having greater self-regulatory inefficacy ($M = 3.30 \pm 0.15$, $SD = 0.62$) than light Internet users ($M = 2.77 \pm 0.13$, $SD = 0.57$), $F(1,71) = 33.05$, $p < .001$, $\eta^2_p = .32$.

Consistent with Hypothesis 3, participants rated gullible actors as benefitting more from censorship ($M = 3.14 \pm 0.13$, $SD = 0.55$) than critical-minded actors ($M = 2.35 \pm 0.13$, $SD = 0.56$), $F(1,71) = 105.48$, $p < .001$, $\eta^2_p = .60$. Consistent with Hypothesis 4, participants rated heavy Internet users as benefitting more from censorship ($M = 2.97 \pm 0.15$, $SD = 0.63$) than light Internet users ($M = 2.52 \pm 0.13$, $SD = 0.57$), $F(1,71) = 22.43$, $p < .001$, $\eta^2_p = .24$.

Post Hoc Analysis

Crossing the two manipulations produces four audience prototypes: gullible heavy Internet users, gullible light Internet users, critical-minded heavy Internet users, and critical-minded light Internet users. Paired samples t tests evaluated the magnitude of self–other asymmetry of each efficacy belief for each prototype (Tables 2 and 3). These results show further the additive effect of the two experimental factors, where ratings of self-regulatory inefficacy and censorship efficacy were the highest for gullible heavy Internet users and lowest for critical-minded light Internet users. Moreover, results show perceptual asymmetries for which self-regulatory inefficacy ($\Delta M = -1.06 \pm 0.30$, $SD = 1.28$) and censorship efficacy ($\Delta M = -0.74 \pm 0.31$, $SD = 1.33$) are higher for gullible heavy Internet users than for the self. Interestingly, asymmetric perceptions of self-regulatory inefficacy ($\Delta M = 0.35 \pm 0.27$, $SD = 1.16$) and censorship efficacy ($\Delta M = 0.49 \pm 0.31$, $SD = 1.31$) reversed when participants rated critical-minded light Internet users. These contrasting asymmetries suggest different psychological mechanisms, which the discussion addresses.

Discussion

This study set out to document how mental representations of specific audiences affect beliefs about their engagement with media content. Conceptualizations of media schemas

and person schemas guided the explication of audience schemas, which as collections of trait-related attributes may define particular audience prototypes. This study was interested in two attributes that may be especially relevant to perceived efficacy beliefs: critical-mindedness and Internet use. Four hypotheses predicted effects of audience prototypes on self-regulatory inefficacy and censorship efficacy, which was supported by the analysis of repeated measures experimental data. Participants rated gullible actors as having greater self-regulatory inefficacy and benefitting more from censorship than critical-minded actors, and the same patterns emerged regarding perceptions of heavy versus light Internet users. In sum, these results suggest that individuals' beliefs about others' media-related abilities may hinge on perceptions of specific traits in others.

These results also have more subtle implications. First, they help differentiate audience schemas from media schemas. Whereas media schemas represent generic properties of media, which may imply attributes of general audiences (Meirick, 2006; Price et al., 1997), audience schemas are more trait-based representations of audience types. While this differentiation suggests that the two types of schemas reflect different kinds of mental structures, they are likely co-occurring. For example, media savviness has been measured as agreement with the statement that "most people have the ability to judge the accuracy of what they see and hear" (Price et al., 1997, p. 530), which suggests a dimension of media literacy and, more basically, critical-mindedness.

The belief that general audiences lack critical-mindedness may arise from at least two sources of information: beliefs about the power of media and beliefs about the faculties of individual audience members. If individuals believe that the media have powerful effects, just not on them, then it must be that other audiences are somehow more vulnerable. But why are they more vulnerable? The explanation may be simply that audiences are gullible. Note that this explanation is not based on beliefs about specific audiences; rather, it serves to reconcile the gap between beliefs about powerful effects and beliefs about self-invulnerability. This explanation corresponds to what Andsager and White (2007, p. 80) described as a "first level" in the formation of TPP. On this first level, beliefs about others are related to perceptions of self–other dissimilarity, which intuitive theories about media effects may supplement. On the other hand, the magnitude of TPP may vary depending on whom individuals perceive as being potentially influenced. Andsager and White described this effect as occurring on a second level of TPP, where individuals consider characteristics of audiences that may predispose them to influence.

While the first level of TPP is more about the effects of media schemas and resolving inconsistencies of intuitive

Table 2. Perceived self-regulatory inefficacy of self and others

Referent	Descriptive statistics		Paired sample t test					
	M	SD	ΔM	SD	Lower 95% CI	Upper 95% CI	t(1,71)	p
Self	2.74	0.96						
Gullible heavy Internet user	3.79	0.76	−1.06	1.28	−1.36	−0.76	−7.01	< .001
Gullible light Internet user	3.16	0.94	−0.42	1.21	−0.71	−0.14	−2.97	.004
Critical-minded heavy Internet user	2.81	0.91	−0.07	1.02	−0.31	0.17	−0.58	.563
Critical-minded light Internet user	2.39	0.82	0.35	1.16	0.08	0.62	2.55	.013

Table 3. Perceived censorship efficacy, benefit for the self and others

Referent	Descriptive statistics		Paired sample t test					
	M	SD	ΔM	SD	Lower 95% CI	Upper 95% CI	t(1,71)	p
Self	2.72	1.33						
Gullible heavy Internet user	3.47	0.77	−0.74	1.33	−1.05	−0.43	−4.75	< .001
Gullible light Internet user	2.81	0.73	−0.09	1.43	−0.43	0.25	−0.54	.594
Critical-minded heavy Internet user	2.47	0.77	0.26	1.36	−0.06	0.58	1.61	.113
Critical-minded light Internet user	2.23	0.67	0.49	1.31	0.19	0.80	3.20	.002

theories, the second level is more about the effects of audience schemas. Numerous studies have measured TPP among contrasting audience types (see Table 6.1 in Andsager & White, 2007); however, many of these studies varied either the categories of audiences (e.g., Neuwirth & Frederick, 2002) or the degree of self-other similarity (e.g., Paek et al., 2005). In either instance, perceptual asymmetry can be explained as occurring on the first level, as the categorization of others into broad groups facilitates the assessment of self–other dissimilarity. On the other hand, by showing effects of specific audience prototypes, the current study made a more straightforward argument for perceptual asymmetries occurring on the second level of TPP.

Consistent with the earlier assertion that media schemas and audience schemas co-occur, the two levels of TPP also likely co-occur. Support for this assertion is evident if efficacy beliefs are regarded as types of media schemas. Indeed, self-regulatory inefficacy corresponds closely with the savvy audience schema that Meirick (2006) described, and censorship efficacy corresponds with the society-oriented media schema that "media should be regulated for the benefit of vulnerable individuals." Yet, the strength of these beliefs may depend on the characteristics of specific audiences, which current results suggest may include their critical-mindedness and amount of Internet use.

The post hoc analysis specifically documented asymmetric efficacy beliefs of four particular audience prototypes, showing two consistent patterns: First, relative to

themselves, participants rated gullible heavy Internet users both as having greater self-regulatory inefficacy and as benefitting more from censorship. This is an example of a downward comparison. Second, participants rated themselves, relative to critical-minded light Internet users, both as having greater self-regulatory inefficacy and as benefitting more from censorship. This is an example of an upward comparison. The downward comparison is consistent with a motivational explanation of self–other perceptual asymmetries, where it is self-enhancing when the self has a relatively greater internal perceived locus of causality (see Rosenthal et al., 2015). The upward comparison suggests a more cognitive process that underlies the perceptual asymmetry, where perception of critical-minded light Internet users is less about self–other differentiation and more about using features of the prototype to make inferences about those types of audience members. This is not to say that downward comparisons are strictly motivational and upward comparisons are strictly cognitive, but rather that such comparisons emphasize motivations and cognitions, respectively. For example, while upward comparisons with critical-minded light Internet users may reflect cognitive processing of the prototype, participants tended to disagree that they, themselves, have self-regulatory inefficacy ($M = 2.74$, $SD = 0.96$). The mean score on this item was lower than the middle response option (3 = *neutral*; $\Delta M = -0.26 \pm 0.23$), $t(1,71) = -2.32$, $p = .023$. Self-enhancing motivation can explain this disagreement, which would also tend to attenuate the upward

comparison. This balance of motivational and cognitive processing can help explain inconsistent findings of reverse TPP, or first-person perception, in the context of desirable media content (Golan & Day, 2008).

Future Directions

This study suggests there is value in examining narrowly defined prototypes of audiences, yet it only scratched the surface by exploring two rather obvious characteristics of media audiences. While it might suffice to assume that people who are gullible are unable to control how media influence them, a broader understanding of self-regulatory inefficacy might also account for avoidance behaviors. Indeed, the measurement of self-regulatory inefficacy referred to the ease of resisting influence, which may conceivably include information avoidance. Certainly, avoidance requires some cognitive processing in that people must identify harmful media content and then enact an effective avoidance protocol; however, this process relieves them from having to cognitively resist the media content itself. Future research might study audience characteristics that predispose them to avoidance, for example, chronic worry (Oathes, Siegle, & Ray, 2011) and negative affect (Savolainen, 2014).

Furthermore, future research might examine audience characteristics that are specific to certain media contexts. For example, such a characteristic might relate to impulse-control disorder (e.g., gambling addiction), which prior research has associated with compulsive pornography users (Kraus, Potenza, Martino, & Grant, 2015).

Limitations

One strength of experimental designs is that they can provide an argument for causality. Current statistical inference may suggest that the instantiation of particular schemas causes asymmetric efficacy beliefs. However, causation in this instance is not so clear-cut. It may be that participants have a well-articulated media schema into which particular audience schemas may fit. That is, if an intuitive theory of powerful media effects implies that general audiences lack self-regulatory efficacy and stand to benefit from censorship, then the perceived correspondence between media schema and audience schema may be driving the asymmetric perceptions. Thus, results suggest merely that individuals associate particular media-related beliefs with particular types of media audiences.

A second design-related limitation is of generalizability. The current sample is more than sufficient for statistical power, but the statistical outcomes may reflect characteristics of the sampling frame. If university students in Singapore consider themselves to be more or less media savvy than do members of the general public, then the observed effects related to self–other differentiation are not generalizable.

Conclusion

Mental representations of the media and media audiences can motivate TPP, which prior research has shown and which the current study replicates. In addition to conceptual replication, this study extended the third-person effects model to account for audience schemas in the formation of specific efficacy beliefs. Results suggest that trait-based mental representations of audiences affect beliefs that audience members are unable to control how the media affect them and that they benefit from censorship. This effect of audience prototype may then manifest as self–other perceptual asymmetries that underlie TPP and the third-person effect.

References

Andsager, J. L., & White, H. A. (2007). *Self versus others: Media, messages, and the third-person effect*. Hoboken, NJ: Taylor & Francis.

Augoustinos, M., & Walker, I. (1995). *Social cognition: An integrated introduction*. London, UK: Sage.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*, 191–215. doi: 10.1037/0033-295X.84.2.191

Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist, 37*, 122–147. doi: 10.1037/0003-066X.37.2.122

Bandura, A. (1991). Social cognitive theory of self-regulation. *Organizational Behavior and Human Decision Processes, 50*, 248–287. doi: 10.1016/0749-5978(91)90022-L

Bartlett, F. (1932/1972). *Remembering: A study in experimental and social psychology*. London, UK: Cambridge University Press.

Brewer, W. F. (1987). Schemas versus mental models in human memory. In P. Morris (Ed.), *Modeling cognition* (pp. 187–197). Chichester, UK: Wiley.

Brewer, W. F., & Nakamura, G. V. (1984). The nature and function of schemas. In R. Wyer & T. Srull (Eds.), *Handbook of social cognition* (Vol. 1, pp. 119–160). Hillsdale, NJ: Lawrence Erlbaum Associates.

Brown, J. D. (1986). Evaluations of self and others: Self-enhancement biases in social judgments. *Social Cognition, 4*, 353–376. doi: 10.1521/soco.1986.4.4.353

Cantor, N., & Mischel, W. (1977). Traits as prototypes: Effects on recognition memory. *Journal of Personality and Social Psychology, 35*, 38–48. doi: 10.1037/0022-3514.35.1.38

Davison, W. P. (1983). The third-person effect in communication. *Public Opinion Quarterly, 47*, 1–15. doi: 10.1086/268763

Douglas, K. M., Sutton, R. M., & Stathi, S. (2010). Why I am less persuaded than you: People's intuitive understanding of the psychology of persuasion. *Social Influence, 5*, 133–148. doi: 10.1080/15534511003597423

Eveland, W. P., Nathanson, A. I., Detenber, B. H., & McLeod, D. M. (1999). Rethinking the social distance corollary: Perceived likelihood of exposure and the third-person perception. *Communication Research, 26*, 275–302.

Feng, G. C., & Guo, S. Z. (2012). Support for censorship: A multilevel meta-analysis of the third-person effect. *Communication Reports, 25*, 40–50. doi: 10.1080/08934215.2012.661019

Golan, G. J., & Day, A. G. (2008). The first-person effect and its behavioral consequences: A new trend in the twenty-five year history of third-person effect research. *Mass Communication and Society, 11*, 539–556. doi: 10.1080/15205430802368621

Gregg, A. P., Hart, C. M., Sedikides, C., & Kumashiro, M. (2008). Everyday conceptions of modesty: A prototype analysis. *Personality and Social Psychology Bulletin, 34*, 978–992. doi: 10.1177/0146167208316734

Kraus, S. W., Potenza, M. N., Martino, S., & Grant, J. E. (2015). Examining the psychometric properties of the Yale-Brown Obsessive-Compulsive Scale in a sample of compulsive pornography users. *Comprehensive Psychiatry, 59*, 117–122. doi: 10.1016/j.comppsych.2015.02.007

Kreplin, U., & Fairclough, S. H. (2015). Effects of self-directed and other-directed introspection and emotional valence on activation of the rostral prefrontal cortex during aesthetic experience. *Neuropsychologia, 71*, 38–45. doi: 10.1016/j.neuropsychologia.2015.03.013

Lambe, J. L., & McLeod, D. M. (2005). Understanding third-person perception processes: Predicting perceived impact on self and others for multiple expressive contexts. *Journal of Communication, 55*, 277–291. doi: 10.1111/j.1460-2466.2005.tb02672.x

LaRose, R., Mastro, D., & Eastin, M. S. (2001). Understanding Internet usage a social-cognitive approach to uses and gratifications. *Social Science Computer Review, 19*, 395–413. doi: 10.1177/089443930101900401

McLeod, D. M., Detenber, B. H., & Eveland, W. P. (2001). Behind the third-person effect: Differentiating perceptual processes for self and other. *Journal of Communication, 51*, 678–695. doi: 10.1093/joc/51.4.678

McLeod, D. M., Eveland, W. P., & Nathanson, A. I. (1997). Support for censorship of violent and misogynic rap lyrics: An analysis of the third-person effect. *Communication Research, 24*, 153–174. doi: 10.1177/009365097024002003

Media Literacy Project. (n.d). *What is media literacy?* Retrieved from https://medialiteracyproject.org/learn/media-literacy.

Meirick, P. C. (2006). Media schemas, perceived effects, and person perceptions. *Journalism & Mass Communication Quarterly, 83*, 632–649. doi: 10.1177/107769900608300310

Mezulis, A. H., Abramson, L. Y., Hyde, J. S., & Hankin, B. L. (2004). Is there a universal positivity bias in attributions? A meta-analytic review of individual, developmental, and cultural differences in the self-serving attributional bias. *Psychological Bulletin, 130*, 711–747. doi: 10.1037/0033-2909.130.5.711

Miller, D. T., & Ross, M. (1975). Self-serving biases in the attribution of causality: Fact or fiction? *Psychological Bulletin, 82*, 213–225. doi: 10.1037/h0076486

Neuwirth, K., & Frederick, E. (2002). Extending the framework of third-, first-, and second-person effects. *Mass Communication & Society, 5*, 113–140. doi: 10.1207/S15327825MCS0502_2

Oathes, D. J., Siegle, G. J., & Ray, W. J. (2011). Chronic worry and the temporal dynamics of emotional processing. *Emotion, 11*, 101–114. doi: 10.1037/a0021781

Paek, H.-J., Pan, Z., Sun, Y., Abisaid, J., & Houden, D. (2005). The third-person perception as social judgment: An exploration of social distance and uncertainty in perceived effects of political attack ads. *Communication Research*, 143–170. doi: 10.1177/0093650204273760

Perloff, R. M. (1999). The third-person effect: A critical review and synthesis. *Media Psychology, 1*, 353–378. doi: 10.1207/s1532785xmep0104_4

Price, V., Huang, L. N., & Tewksbury, D. (1997). Third-person effects of news coverage: Orientations toward media. *Journalism & Mass Communication Quarterly, 74*, 525–540. doi: 10.1177/107769909707400307

Pronin, E. (2008). How we see ourselves and how we see others. *Science, 320*, 1177–1180. doi: 10.1126/science.1154199

Pronin, E. (2009). The introspection illusion. In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 41, pp. 1–67). Burlington, MA: Academic Press.

Rogers, R. (1975). Protection motivation theory of fear appeals and attitude-change. *Journal of Psychology, 91*, 93–114. doi: 10.1080/00223980.1975.9915803

Rojas, H. (2010). "Corrective" actions in the public sphere: How perceptions of media and media effects shape political behaviors. *International Journal of Public Opinion Research, 22*, 343–363. doi: 10.1093/ijpor/edgo18

Rosenthal, S., Detenber, B. H., & Rojas, H. (2015). Efficacy beliefs in third-person effects. *Communication Research*. Advance online publication. doi: 10.1177/0093650215570657

Rumelhart, D. E., & Ortony, A. (1977). The representation of knowledge in memory. In R. C. Anderson, R. J. Shapiro, & W. E. Montague (Eds.), *Schooling and the acquisition of knowledge*. Hillsdale, NJ: Erlbaum.

Savolainen, R. (2014). Emotions as motivators for information seeking: A conceptual analysis. *Library & Information Science Research, 36*, 59–65. doi: 10.1016/j.lisr.2013.10.004

Scharrer, E. (2002). Third-person perception and television violence: The role of out-group stereotyping in perceptions of susceptibility to effects. *Communication Research, 29*, 681–704. doi: 10.1177/009365002237832

Schmierbach, M., Boyle, M. P., & McLeod, D. M. (2008). Understanding person perceptions: Comparing four common statistical approaches to third-person research. *Mass Communication and Society, 11*, 492–513. doi: 10.1080/15205430802375311

Shen, L. J., Pan, Z. D., & Sun, Y. (2010). A test of motivational vs. cognitive explanations for the third-person perception. *American Journal of Media Psychology, 3*, 32–53.

Standing, L. G., & Huber, H. (2003). Do psychology courses reduce belief in psychological myths? *Social Behavior and Personality, 31*, 585–592. doi: 10.2224/sbp.2003.31.6.585

Sun, Y., Pan, Z. D., & Shen, L. J. (2008). Understanding the third-person perception: Evidence from a meta-analysis. *Journal of Communication, 58*, 280–300. doi: 10.1111/j.1460-2466.2008.00385.x

Sun, Y., Shen, L. J., & Pan, Z. D. (2008). On the behavioral component of the third-person effect. *Communication Research, 35*, 257–278. doi: 10.1177/0093650207313167

Trope, Y. (1998). Dispositional bias in person perception: A hypothesis-testing perspective. In J. M. Darley & J. Cooper (Eds.), *Attribution and social interaction* (pp. 67–98). Washington, DC: American Psychological Association.

Willard, G., & Gramzow, R. H. (2008). Exaggeration in memory: Systematic distortion of self-evaluative information under reduced accessibility. *Journal of Experimental Social Psychology, 44*, 246–259. doi: 10.1016/j.jesp.2007.04.012

Wolfsfeld, G. (1986). Political action repertoires: The role of efficacy. *Comparative Political Studies, 19*, 104–129. doi: 10.1177/0010414086019001005

Xu, J., & Gonzenbach, W. J. (2008). Does a perceptual discrepancy lead to action a meta-analysis of the behavioral component of the third-person effect. *International Journal of Public Opinion Research, 20*, 375–385. doi: 10.1093/ijpor/edn031

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