Not All Perceptual Gaps Were Created Equal: Explicating the Third-Person Perception (TPP) as a Cognitive Fallacy

Lijiang Shen, Ye Sun, and Zhogdang Pan

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Not All Perceptual Gaps Were Created Equal: Explicating the Third-Person Perception (TPP) as a Cognitive Fallacy

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Explicating the third-person perception (TPP) as a cognitive fallacy in the process of comparative social judgment of media effects, we propose that not all self–other perceptual gaps in media effects should be considered as TPP. When there is reasonably valid and accurate information regarding self vis-à-vis others on media consumption and vulnerability to media influence, the associated self–other gaps in media effects are not exaggerations, hence, not TPP. TPP results

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from cognitive biases in information retrieval and application in the process of comparative social judgments. Such biases are in the forms of self-other information differential, assimilation, contrast, and anchoring effects. Caveat in interpretation of extant evidence and implications for future TPP research are discussed.

There has been increasing and substantial empirical evidence that the third-person perception (TPP) is a robust phenomenon (Davison, 1996; Perloff, 2009; Sun, Pan, & Shen, 2008). Scholars have uncovered a host of relevant factors that help explain and predict the self–other perceptual gap in media effects, for example, media effects schemas (e.g., McLeod, Eveland, & Nathanson, 1997; Price, Huang, & Tewksbury, 1997); undesirability of presumed influence (e.g., Gunther & Storey, 2003); characteristics of the referent other such as geographic distance, psychological or relational distance, generality, heterogeneity, and group categorization (e.g., Brosius & Engel, 1996; Cohen, Mutz, Price, & Gunther, 1988; Duck & Mullin, 1995; Reid & Hogg, 2005; Tewksbury, 2002); and characteristics of self, including self-esteem, paternalistic orientation, and self-protection or self-enhancement motivations (e.g., Brosius & Engel, 1996; P. David & Johnson, 1998; P. David, Morrison, Johnson, & Ross, 2002; McLeod, Detenber, & Eveland, 2001; White & Dillon, 2000). Although our understanding of TPP has been advanced by several narrative and meta-analytic reviews (see Gunther, Perloff, & Tsafati, 2007; Perloff, 2009; Sun, 2013; Sun et al., 2008), the findings regarding the perceptual phenomenon remain largely descriptive in that they tend to be about the magnitude of TPP, and when it happens, but less about how and why it happens.

This limitation is well reflected in the large number of factors offered as predictors of TPP, which nevertheless have not been integrated to form a systematic and coherent theoretical framework. After more than three decades of research, the TPP literature largely remains as a “disentangled puzzle” (Mussweiler, Rüter, & Epstude, 2004, p. 833), and our understanding of how and why TPP occurs is still muddled. Generalizable explanations or predictions of TPP, which is what scientific communication research strives to achieve, are still lacking.

Due to the absence of a normative theoretical framework, much less is known about TPP than presented in the available narrative and meta-analytical reviews. The underlying psychological mechanisms of the perceptual gap are rather inconclusive and sometimes elusive. Researchers have called for more rigorous theorization and research toward a normative theory of TPP (e.g., Perloff, 2009; Sun, 2013; see also Lang, 2013; Perloff, 2013, for theorization in media effects and communication research in general). This article is to answer that call. In doing so, first we analyze potential underexplication issues in the TPP literature and offer further explications. Second we present a cognitive model of TPP and advance propositions advanced
while taking the explication issues into consideration. Last, implications and recommendations for future research are discussed.

EXPLICATING THE TPP: CONCEPTUAL AND OPERATIONAL ISSUES

Definitional Kernel of TPP: A Cognitive Fallacy

In his seminal publication, Davison (1983) delineated the perceptual component in the third-person effect, which states that “people will tend to overestimate the influence that mass communications have on the attitudes and behavior of others” (p. 3). That is, individuals would expect media messages to have a greater effect on others than on themselves. Such TPPs, as Davison (1983) surmised, result from “exaggerated expectations” (p. 14) about media effects on others. Although it remains an empirical question if TPP stems from an overestimation of media effects on others or underestimation of that on self, or both (Davison, 1983; Perloff, 1993), TPP spurs theoretical fascination among media effects scholars as a “logical inconsistency” that is widely subscribed to (Tiedge, Silverblatt, Havice, & Rosenfeld, 1991, p. 51).

Rooted in social psychology, TPP is a construct on perceptions of social reality that “emphasizes that people harbor illusions—mistaken beliefs about others’ opinions” (Perloff, 2003, p. 491). Like similar concepts such as pluralistic ignorance (Miller & McFarland, 1987) or unrealistic optimism (Weinstein, 1980), the core characteristic of TPP is the inaccurate, illogical, and flawed nature of social perceptions. It reflects a much broader bias called naïve realism in social perceptions and judgments (Pronin, Gilovich, & Ross, 2004; Sun et al., 2008). Naïve realism is the tendency for which individuals believe that (a) the facts are plain for all to see; (b) we see objects as they really are and without bias; and (c) those who are different from us or disagree with us must be irrational, biased, and mistaken. TPP documents such divergent perceptions regarding self vis-à-vis others when it comes to assessing media influences. Just as naïve realism may or may not serve self-enhancement motivations (Pronin et al., 2004), TPP is broadly conceived in this article as a cognitive phenomenon that does not hinge on the presence of the self-enhancement motivations. Although explanations for TPP can include both motivational (Perloff, 2002; Sun et al., 2008) and cognitive (Paek, Pan, Sun, Abisaid, & Houden, 2005; see also Shen, Pan, & Sun, 2010) factors, TPP consists in a persistent cognitive bias (e.g., David, Liu, & Myser, 2004). Hence, we submit the following:

1 Just as perception, as a perceptual gap, TPP per se is a fundamentally cognitive construct. On the other hand, as the literature has shown, factors that predict the perceptual gap, or the consequences thereof, can be cognitive, motivational, and/or behavioral.
Proposition 1: TPP is a form of cognitive fallacy that involves distorted and exaggerated estimate of media effects on referent others vis-à-vis self.

Scholars have theorized about and investigated if the logical inconsistency in TPP was due to (a) the overestimation of effects on others (e.g., Gunther, 1991; Perloff, 1989; Price, Tewksbury, & Huang, 1998) or (b) the underestimation of effects on self (e.g., Cohen et al., 1988). The extant literature suggests that there are challenges to answering this important question. To “empirically” assess potential over- and/or underestimating the effects from a described or actual media message on self versus others, a researcher would need (a) the actual effects on the referent (self and or others) and (b) the perceived effects on the referent (self or others), such that the over- and/or underestimate would be the differential between the perceived and actual effects from the message under investigation. With a proper design and necessary measures, the researcher can get, within sampling error, the actual effects on self, the perceived effects on self, and the perceived effects on others. The actual effects on others would be difficult, if not impossible to ascertain—the sample used for this purpose will have to be exactly the same, or a comparable aggregate that the participants in the TPP study had in their mind when responding to the TPP measures. Researchers have capitalized on control groups/conditions to infer “actual effects.” Cohen et al.’s (1988) inference of over- versus underestimation relied upon comparing the respective perceived effects of libelous messages on self and others to perceived effects of a nonlibelous message on the control group. Gunther (1991) adopted a similar approach by using the opinion from a no-message control group as the “actual opinion.” Perloff (1989) utilized the contrast of impact of news on a nonpartisan control group versus that on pro-Israeli/pro-Palestinian groups. Such estimates of over- and/or underestimation are essentially the differences in the impact of different messages on different targets; rather than the differences between perceived effects and actual effects of the same message on the specific target referent (i.e., self and/or others), which would be over- and/or underestimate per se.

Another challenge for researchers in answering this important question lies in identifying the essential characteristics in the construct of TPP as a cognitive fallacy. An accurate explication and precise operationalization would be prerequisites for assessing potential over- and/or underestimation variables, without which inferences about the mechanisms leading to the cognitive fallacy would be questionable. We turn to issues related to the operationalization of TPP as a cognitive fallacy next.

2 The potential over- and underestimation mechanisms would be important factors that explain/predict TPP as a cognitive fallacy. Analyses of such factors are beyond the scope of this article.
Partitioning the Self–Other Perceptual Gap

Although conceptually TPP is a cognitive fallacy at the individual level, in empirical research the “fallacy” is operationally evinced at the group level in the form of a significant mean difference in the perceived effects on self versus on others. That is, when most members of the group perceive themselves “better than others” in responding to media messages (in terms of either TPP or its counterpart, first-person perception [FPP]), the aggregated pattern of judgments suggests a logical fallacy in the studied population. The observed self–other perceptual gap has been the empirical cornerstone of extant TPP research, with all TPP researchers looking for statistically significant self–other mean differences to conclude TPP or FPP. Scholars have pondered if the perpetual gap comes from overestimating effects on others, underestimating effects on self, or both (Cohen et al., 1988; Gunther, 1991; Perloff, 1989; Price et al., 1998; see Perloff, 1993, for a review); nevertheless, these three possible scenarios all concur on the same operationalization of TPP as the self–other difference score. This prevalent practice of reducing the construct of TPP/FPP to an arithmetic construction of a self–other difference score has received little reflection from TPP scholars.

Highlighting the definitional kernel of TPP as a cognitive bias calls into question such an operationalization of TPP because it deviates from the conceptual explication of TPP. We contend that this operational practice, rather taken-for-granted in TPP research, confounds individuals’ perceived difference with their perceptual bias. Perceived difference in media effects is a summary estimate of the distance between self and the target other on the specified dimension of evaluation (here, media effects), which contains the “true” distance between the two and some erroneous, distorted judgment (i.e., under- or over-estimation of the distance). In other words, the self–other difference score can be decomposed into two segments: a segment that reflects the “true” difference between self and the referent other (i.e., nonbias) and a segment that captures the distortion (i.e., bias). In TPP studies, the “true” self–other difference in observed perceptual gaps in media effects could come from (a) sample selection issues, which occur when the selected sample is not representative of the population intended to be analyzed, thereby leading to biased and inaccurate results from data analyses (see Morgan & Winship, 2007; Winship & Morgan, 1999, for discussions on sample selection in general) and (b) researchers overlooking the possibility that lay individuals are capable of rendering reasonably valid comparative assessments of media effects under certain circumstances. We elaborate on each of these two issues next.
Sample Selection

A significant self–other perceptual difference could simply be the result of sample selection bias. To illustrate, visualize a distributional curve that depicts the “true” effect of a particular media message on individuals, with the mean population effect size of $\mu$ and a standard deviation of $\sigma$. Individuals among the 50% below $\mu$ can objectively claim that they are less influenced than the other 50% that is above $\mu$, and vice versa. If a sample is drawn in such a way that it overrepresents the half below $\mu$ in the population (Figure 1a), the result would be a significantly lower estimate of the media effects on self than on the general others of the same population (thus an ostensible TPP), even when all the sampled individuals provide accurate and objective estimates (i.e., objectively there is less message effect on themselves). Likewise, a sample that overrepresents the half above $\mu$ would produce the opposite pattern (not depicted in the figure). Both cases, typically leading to conclusions of TPP (the former) or FPP (the latter), would constitute Type I errors as there is no exaggeration in individuals’ estimation of media effects on themselves or on others in either case, and that the population effect for TPP/FPP should be null.

An overwhelming majority of TPP studies utilized convenience samples of college students, who tend to be young, healthy, well educated, privileged, and media/technology savvy (see Henrich, Heine, & Norenzayan, 2010). It does not help, either, that these college students were primarily recruited from communication and mass communication classes. Such characteristics probably would put most of the participants in TPP studies among the 50% below $\mu$ (i.e., they are less influenced by the media in general) when the referent “others” in question refer to other members of the general population in the United States. To wit, when the sample is predominantly college students, the observed self–other difference could very well reflect a considerable amount of noise due to sampling bias that distorts the representation of “self” and “others” (i.e., oversampling of college students and under/zilch-sampling of other adults from the general population). The meta-analysis by Paul, Salwen, and Dupagne (2000) indeed shows that the self–other perceptual gap was wider when samples were obtained from college students than when they were from a nonstudent population (however, see Sun et al., 2008, for methodological issues in Paul et al.).

Reasonably Valid Estimates of Self–Other Differences

In deconstructing the observed self–other perceptual gap, our underlying assumption is that human beings are capable of rendering judgments that, under certain circumstances and to different degrees, do register social reality. Although not free from cognitive biases or flaws, our social perceptions or judgments are not entirely biased or flawed, either. Type I errors in TPP/FPP
inferences can occur when researchers overlook lay individuals’ capacity to generate valid and accurate estimates of media effects. Operating as lay psychologists (Heider, 1958), individuals can often make reasonably logical and valid judgments based on available conventional social knowledge, which can be

\[ a. \text{Self-other difference due to sampling bias.} \]

\[ b. \text{Self-other difference due to distinctive populations} \]

FIGURE 1 Illustrations of “true” self-other differences.
partly built upon widely shared social experiences or social scientific information that has been popularized and naturalized, thus easily accessible for lay theorizing in everyday judgment making (Furnham, 1988). Provided with sufficient cues in the judgment context, which could in turn activate a reliable stock of social knowledge to draw upon, individuals can make reasonably valid social perceptions or judgments.

In TPP research, labels of message contexts and referent others serve as cues to guide knowledge activation and application. Such cues can be especially effective in reducing ambiguity and uncertainty in judgment making when there is a clear match or mismatch in the message-other versus message-self relationships. For example, Figure 1b depicts a research design where “self” and the referent other belongs to two distinctive populations in relation to the media message in question. The two distributional curves hypothetically describe the “true” effect of a certain media message on these two distinct populations, with the message (e.g., a primary campaign ad from a Republican candidate) clearly having a stronger effect on Population 2 (e.g., Republican voters) than on Population 1 (e.g., Democrat voters). When the “self” and the target “other” are described as from such different populations (regarding audience-media relationship), even if all respondents make “objective” estimates (i.e., when there is no cognitive bias), there would be significant self–other perceptual gaps. To a large degree, such observed self–other perceptual gaps simply register certain social reality and the “true” differences between the two audience groups, instead of demonstrating TPP or FPP.

Reid and colleagues (2005, 2007) described and explained how individuals may have reliable social knowledge regarding the prototypes of certain groups, to whom consumption of certain media content is normative (e.g., bankers are perceived to have more exposure to the Wall Street Journal) and who might be more susceptible to media influence in a specific way. In one of their studies, both men and women perceive men (as “themselves” for male participants and as “others” for female participants) to be more aroused and excited by pornography and women (as “others” for male participants and as “themselves” for female participants) to be more repulsed and offended (Reid, Byrne, Brundidge, Shoham, & Marlow, 2007). Given their design, the observed perceptual gaps could well reflect a reasonable estimate of social reality that has been empirically validated in social science research (Murnen & Stockton, 1997; Rupp & Wallen, 2008). Such observed self–other gaps arising from judgments of normative fit (or the lack thereof), at the minimum, cannot be considered as all TPP or FPP because they are not entirely due to cognitive biases. Along the same line of argument, self–other differences due to individuals’ predispositions to messages or message topics such as values, principles, and prior behaviors (e.g., Ho, Detenber, Malik, & Neo, 2012) cannot be considered as all TPP or FPP either, because at least part of that self–other gap was not error. There has been well-
documented evidence for biased message processing in persuasion research that individuals’ predispositions differentiate message effects (e.g., Ahluwalia, 2000; Freeman, Hennessy, & Marzullo, 2001).

These two potential issues in research designs deserve more attention from TPP researchers. Both suggest that the observed self–other perceptual gaps in media effects might at least in part reflect “true” social reality rather than cognitive fallacy resulting from exaggerations and biases in perceptions and social judgments. To illustrate how equating TPP with an observed self–other difference score can be misleading, Figure 2 depicts three hypothetical cases. The length of each line represents the total amount of observed/perceived self–other difference. The solid part indicates the real self–other difference, which does not

![Diagram](https://via.placeholder.com/150)

**Case 1:**

![Diagram](https://via.placeholder.com/150)

**Case 2:**

![Diagram](https://via.placeholder.com/150)

**Case 3:**

![Diagram](https://via.placeholder.com/150)

**Figure 2** Partitioning the observed self–other differences.

*Note.* TPP = third-person perception.
constitute TPP; the dashed part indexes bias in perceived difference, which is TPP per se. Case 1 and Case 2 differ in both real difference and bias but would be regarded as identical in a typical TPP research study because they have the same total observed difference. On the other hand, Case 2 and Case 3 contain the same amount of bias (i.e., TPP) but diverge in true difference. Nevertheless, significant difference in TPP will be inferred between the two cases when TPP is operationalized as the observed difference score (i.e., true difference plus bias). Hence, we submit the following:

Proposition 2: Empirically, a significant self–other gap in perceived media effects is only a necessary, but not sufficient, condition for claiming TPP (or FPP).

The ensuing question is, How do we differentiate between valid and biased or fallacious components in the observed self–other gaps in TPP research, both conceptually and operationally? We argue that self–other differentials in perceived media effects that can be accounted for in a systematic and logical way would fall into the category of “true” difference instead of bias. For example, the proportion of observed self–other difference that can be attributed to the two sources just mentioned will fall into the category of “true” self–other difference, not cognitive bias in the form of TPP or FPP. Next, we turn to the decomposition of observed self–other differences from the perspective of lay theorizing using media effects schemas.

Self–Other Difference Associated With Media Effects Schemas

Consistent with social psychologists, TPP scholars agree that ordinary media consumers use their own lay theories of media effects as informational sources in making effects judgments (McLeod et al., 2001; Perloff, 1993; Price et al., 1997). Media effects schema may be defined as “a constellation of beliefs that media messages are often persuasive or manipulative, and that audience members are generally gullible and susceptible to manipulation” (Price & Tewksbury, 1996, p. 123; see also Kosicki & McLeod, 1990; Perloff, 1993). The meta-analysis by Sun et al. (2008) reveals that these schema variables can be significant predictors of observed self–other perceptual gaps in media effects (i.e., the total observed self–other difference). There is also evidence that, based on such schemas, individuals are able to make reasonably accurate estimates of media effects (i.e., true difference). For example, gamers tend to be aware that they are more susceptible to the influence of computer games than nongamers (Schmierbach, Boyle, Xu, & McLeod, 2011). In research practice, we might also witness such reasonable media effects estimates: In empirical studies that report significant (group-level) perceptual gaps in the form of TPP, there always remain a fraction
of participants who reported themselves as being more influenced than others. These respondents, more or less, reported relatively objective estimates of media effects on themselves vis-à-vis others. To the degree that such lay theories of media effects are systematic and logical, the proportion of self–other perceptual gaps explained by the schema variables should be considered as true self–other differences in media effects, hence not a form of cognitive fallacy (i.e., TPP or FPP).

Media effects schemas can be about characteristics of the media (e.g., the media being powerful and hostile) as well as features and dispositions of the audience (e.g., vulnerability to the media and critical use of media). It should be noted that only a few media effects schemas have been empirically investigated in the literature. Potentially other aspects of the media and audience members (e.g., predispositions relevant to a particular media topic/content, social location, education, media habits, etc.), as long as individuals perceive them to be relevant to and/or determinants of media effects, can be incorporated under the general umbrella of media effects schema.

It should be noted that the information components that individuals use in their lay theories to explain media effects are perceptions themselves and are hence susceptible to cognitive fallacy. For example, individuals tend to exaggerate others’ exposure to TV (e.g., Peiser & Peter, 2000) and exposure to socially undesirable media content and vulnerability to media influence. The pattern regarding the estimate of these media effects schema components tends to be in the opposite direction when self is the referent (Shen, Palmer, Mercer-Kollar, & Comer, 2015; see also Shen & Huggins, 2013). Despite a valid and logical lay media effects theory, when the informational ingredients are inaccurate, the explanation becomes erroneous; hence, the associated perceptual gaps constitute as cognitive fallacies (i.e., TPP or FPP). Overlooking the potential nuances between valid versus exaggerated estimates of self–other differentials in media effects schema might result in Type I errors in TPP research.

Proposition 3a: Proportion of observed self-other differences that is associated with misperceived media effects schemas constitutes cognitive fallacies, hence, TPP or FPP.

When the perceptions of self–other differentials in media effects schemas are reasonably accurate, not all observed self–other differences are cognitive biases. In extant TPP research, two elements of media effects schemas have emerged as robust predictors of observed self–other perceptual gaps in media effects: exposure to media and vulnerability to media influence (Sun et al., 2008). How lay consumers of media content use such information ingredients to estimate effects parallels how similar constructs are used in social scientific theories to explain and predict media effects. This means that when estimates for such components
are based on valid information, the associated perceptual gaps in media effects should not be considered as TPP or FPP.

**Exposure to Media.** Presumed exposure to media messages is a key construct in the cognitive approaches to TPP. The exposure thesis of TPP posits that when conjuring estimation of media effects on multiple referents, individuals would consider the likelihood or approximate levels of exposure to the target message (Eveland, Nathanson, Detenber, & McLeod, 1999). Greater message effect is estimated when a specific referent is presumed to have a higher likelihood or amount of exposure (e.g., Innes & Zeits, 1988) or experience (e.g., Schmierbach et al., 2011), or when the referent is categorized as a member of a group, to whom exposure to the target message is normative (e.g., Reid et al., 2007; Reid & Hogg, 2005). This is supported in the meta-analysis by Sun et al. (2008): Others being more likely recipients of media content positively predicts the observed self-other gap in perceived media effects.

This exposure-based lay explanation of media effects has social scientific counterparts. Bandura’s (2002) social cognitive theory and McGuire’s (1989) information-processing model both posit that exposure and attention are the prerequisites for media effects to occur. The dose effect in media campaigns predicts a linear relationship between the amount of message exposure and campaign effects (e.g., Hornik, Jacobsohn, Orwin, Piesse, & Kalton, 2008; Sly, Trapido, & Ray, 2002). As noted earlier, presumed exposure to a particular type of media content can be biased (e.g., Peiser & Peter, 2000), but not always and not completely, especially when message exposure is normative to a particular group of which the target referent is a member. For example, exposure to communication journals is normative to communication scholars but not to researchers in other unrelated disciplines. When medical students perceive mass communication students to be more influenced by the journal *Mass Communication and Society* than themselves, for instance, this perceptual gap is not TPP, because exposure to this particular journal is normative to mass communication scholars but not to medical researchers. Likewise, it should not be considered as FPP either when medical researchers estimate themselves to be more influenced by the *New England Journal of Medicine* than mass communication students. That mirrors the situation when self and referent others are from different populations regarding media consumption and experience (e.g., Figure 1b). When that happens, estimation of differential exposure and reaction to the media content under investigation might be largely valid, and such perceived self-other gaps do not constitute cognitive fallacies.

Proposition 3b: Proportion of observed self–other differences that can be attributed to accurate perceived differentials in media exposure is not TPP/FPP per se.
Vulnerability to Media Influence. Critical media use and susceptibility to media influence are two additional media effects schemas that predict the observed perceptual gap in media effects (Shen et al., 2015). Sun et al.’s (2008) meta-analysis shows that vulnerability to media influence significantly predicts self–other differential in perceived media effects. Like exposure, estimation of vulnerability to media influence might be biased (e.g., White officers estimating African American soldiers as more susceptible to Japanese propaganda leaflets; Davison, 1983), but not always. For example, there is objectivity in estimating greater media effects on children (e.g., Eveland et al., 1999) or individuals who can be categorized into low education, low income, and/or less knowledgeable on the subject matter to be more gullible to media influence (e.g., Driscoll & Salwen, 1997; Price & Tewksbury, 1996; Sun, Jensen, Guntzviller, & Liu, 2014; Youn, Faber, & Shah, 2000).

Such an account of media effects based on individual differences in their ability to critically evaluate media content and vulnerability to media influence also has counterparts in social scientific theories of media effects, specifically theories in media literacy and persuasion knowledge. Media literacy refers to individuals’ ability to access, analyze, evaluate, and create media. Media literacy is positively associated with comprehension of complex messages from all forms of media and resistance against influence from (particularly undesirable) media content (e.g., Scharrer, 2009; see Jeong, Cho, & Hwang, 2012, for a meta-analysis on the effect of media literacy interventions). The model of persuasion knowledge posits that individuals have a repertoire of knowledge about how persuasion works and how persuasion tactics are being used in the mass media (Friestad & Wright, 1999). The accessibility and utilization of such persuasion knowledge predict how individuals might skillfully cope with persuasion attempts and negatively predict perception of an influence agent and advertising outcomes (Campbell & Kirmani, 2000). In other words, the more media literate and/or knowledgeable about persuasion individuals are, the less susceptible they are to media influence.

Individuals’ estimate of media literacy level and amount of persuasion knowledge for self vis-à-vis others may or may not be objective. However, when the target referents are from different populations regarding media literacy and persuasion knowledge, or there is information that a particular media message has stronger impact on a target referent (e.g., Paek et al., 2005), differential perception of susceptibility to media influence is more likely to be valid. To the degree that perceived self–other gaps in media literacy are valid and the application of persuasion knowledge unbiased, the self–other differential in perceived media effects associated with vulnerability to media influence should not constitute TPP as a form of cognitive fallacy (see Eisend, 2015). Hence, the following:
Proposition 3c: Proportion of observed self–other differences that can be attributed to accurate perceived differentials in vulnerability to media influence is not TPP/FPP per se.

The same line of argument can presumably be extended to other schema variables that predict media effects, albeit less studied (e.g., susceptibility to media influence, critical media use, etc.) in the TPP/FPP literature:

Proposition 3d: Proportion of observed self–other differences that can be attributed to accurate perceived differentials in other media effects schema elements is not TPP/FPP per se.

The explication advanced here, that not all observed self–other differences in perceived media effects are TPP/FPP, corresponds better to Davison’s (1983) original definition. This more precise conceptualization of TPP/FPP as a cognitive fallacy does not run counter to the conclusions from previous synthetic reviews that have conferred strong evidence that TPP is a robust phenomenon, irreducible to sampling error or other methodological artifacts (e.g., Perloff, 2009; Sun et al., 2008). From the media effects schema perspective, biases in media effects judgments result from misperceptions of self–other differentials in schemas. Although there is no absolutely “objective” or “correct” judgment of social reality (Berger & Luckmann, 1966), lay individuals are able, under certain circumstances and to different extents, to utilize reasonably valid information ingredients to generate (self vis-à-vis others) media effects estimates. The research practice of equating TPP with the total observed self–other differences in media effects would have inflated the effect size of TPP or FPP. This refined explication of the TPP construct alone, however, is only one step toward advancing the theoretical understanding of TPP. The long “cautionary tale” we just outlined delineates what is not TPP but does not explain how and why the cognitive fallacy occurs. Next, we present a cognitive account of TPP that lays out the psychological processes underlying the cognitive bias, regardless of the presence of self-enhancement motivations.

LOCATING AND EXPLAINING COGNITIVE FALLACY: INFORMATION RETRIEVAL AND APPLICATION

The more pinpointed explication of TPP as a cognitive fallacy directs theoretical efforts toward identifying processes of fallacious reasoning in estimating media effects on self vis-à-vis on others. Several scholars have suggested that TPP is an outcome of rendering comparative social judgments under the condition of inadequate information (David et al., 2004; Paek et al., 2005). There is empirical
evidence of cognitive fallacy in this process where lay theories of media effects are utilized to render estimates for effects on multiple referents. Specifically, individuals might use media effects schemas to estimate effects on self versus on others in different ways (see also Gunther, 1991). Such biases in lay theory application during media effects estimation have their roots in egocentrism (Garner & Pant, 1972), such that individuals tend to perceive social reality and make social judgments based on their own point of view, especially when the situation is uncertain or ambiguous.

Some scholars have equated egocentrism to a motivational force in the TPP literature, variously labeled as “self maintenance,” “self protection,” “self enhancement,” and so on (e.g., Brosius & Engel, 1996; David & Johnson, 1998; White & Dillon, 2000). According to this account, individuals are motivated to project a positive self-image; consequently, TPP emerges when the presumed media influence is socially undesirable and FPP when the presumed media influence is desirable (Gunther & Storey, 2003). Perloff (2002) declared that the motivational explanation for TPP has the most evidence, which is supported by empirical evidence from Sun et al.’s (2008) meta-analysis. A number of social psychologists (e.g., Chambers & Windschitl, 2004; Chambers, Windschitl, & Suls, 2003; Dunning & Hayes, 1996; Kruger, 1999; Mussweiler, 2003; Pronin et al., 2004; Ross & Sicoly, 1979), however, have explicated egocentrism as a type of cognitive bias characterized by privileging self during the social judgment process. The self-serving motive may or may not be involved (Chambers & Windschitl, 2004; Kruger & Gilovich, 2004).

Built on a cognitive formulation of social comparative judgments (Chambers & Windschitl, 2004), we explicate TPP as a two-stage comparative social judgment process: The first is an information retrieval stage when information relevant to the (social judgment) task is retrieved or contrived, and the second is a comparative judgment stage when judgments pertaining to different targets are made (Figure 3). Cognitive biases rooted in egocentrism involved at both stages ultimately lead to fallacies manifested in self–other differentials in perceived media effects. Such perceptual gaps cannot be explained by lay theories in any systematic or logical way and are at the heart of TPP/FPP.

Cognitive Bias in Information Retrieval

This two-stage information differential and social judgment model of TPP shares assumptions in other cognitive theories (e.g., theory of reasoned action; Fishbein & Ajzen, 2010) that, when making judgments, individuals scan information in their internal and external environments and that their decisions are a function of information that is accessible and retrieved. It is proposed that at the information-retrieval stage, individuals scan and retrieve information from three sources: (a) characteristics of self, (b) characteristics of the target other or others, and (c)
features of the media content under consideration. There is self–other information differential in terms of amount, type, depth, and accessibility (McGuire & McGuire, 1986; Prentice, 1990; Rogers, 1981). More specifically, first, people have a wider range of information on their own orientations toward media use, whereas such information about others is limited, vague, and generalized. Second, whereas people have more privileged knowledge about how they themselves internally process a message, access to others’ psychological functioning is mostly speculative. On the other hand, usually unmotivated to actively seek accurate information to form objective judgments, people often simply rely on heuristic cues and accessible information present in the immediate context and their approximate environment.

One possibility is that the effect-estimate context activates the knowledge of self and self–other differences, and the use of such knowledge as a reference in judgments. Evidence supporting this claim can be found in both the social judgment and the TPP literatures. It has been shown that activation of self-knowledge aggravates the egocentric comparisons in social judgments (e.g., Dunning & Hayes, 1996). Such self-information and self–other similarity/dissimilarity, when being cued, may result in an assimilation or contrast between self and others (Mussweiler, 2003). In the TPP literature, Paek et al. (2005) showed that a simple label cuing a target other as being in one’s own demographic category would reduce the self–other difference predicted by the social distance corollary. Another study shows that less difference in perceived message effects is found between self and the other described in terms of demographic attributes similar to oneself (McLeod et al., 1997). A more recent study demonstrates that priming of similarity and dissimilarity information leads to

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**FIGURE 3** A two-stage comparative judgment model of third-person perception (TPP).

*Note.* FPP = first-person perception.
assimilation and contrast effects, respectively, when rendering media effects estimates for self and others (Shen et al., 2015).

Another possibility is for individuals to resort to their lay theories of media effects, the media effect schemas (McLeod et al., 2001; Perloff, 1993; Price et al., 1997). This line of arguments posts that, when estimating media influences on others, individuals may rely on a direct-effect version of media effect schemas more than when estimating media influences on themselves (McLeod et al., 2001). In this process, individuals’ lay theories may compensate for the information deficit due to the self–other information differential. The information compensation explanation offers an account for the existing findings. First, the direct-effect “theory” has greater informational value when estimating effects on others about whom less concrete information is available or accessible. Second, individuals tend to conceptualize the self in concrete and situation-specific terms, whereas conceive others as abstract and static (McGuire & McGuire, 1986). As a result, one may have more ready access to the information about self on how she or he interacts with media messages, and such information may counteract a person’s lay beliefs of the base-rate in self-assessment. Third, with more privileged knowledge about the interior self, people tend to characterize themselves as “overtly acting on the world,” whereas others as “covertly reacting to it” (McGuire & McGuire, 1986, p. 1142). Such a conception of others as passive social beings fit them into prototype of easy victims of the powerful media. For example, exposure positively predicts perceived effects on others but not perceived effects on self (e.g., McLeod et al., 2001), and persuasion knowledge leads to overestimation of perceived effects on others but does not affect perceived effects on self (e.g., Eisend, 2015).

Proposition 4: Self–other information differentials in amount, type, depth, and accessibility positively predict fallacious self–other gaps in perceived media effects (TPP or FPP).

Cognitive Biases in Comparative Judgments

Assessing TPP involves comparative social judgements in that the message effects questions in an empirical TPP study require an individual to generate estimates for at least two target referents (i.e., self and one or more referent other). Consequently, rendering such a judgment requires retrieving, selecting, using, and weighing information about each target other, some undifferentiated social aggregate as a whole, and oneself (see Dunning, 2000). How the different components of information are utilized in media effects estimation is not only a matter of information compensation, but also a social comparison process, similar to that of comparative judgments in other areas (Kruglanski &
Mayseless, 1990). To wit, TPP is (a) a social judgment (b) that is comparative in nature and (c) that has a specific content domain (e.g. media influence) as well as (d) specific target referents (e.g., other students on campus).

When individuals make judgments regarding message effects estimates on self vis-à-vis on target others, they may take one of the two hypothesis-testing procedures: similarity- and dissimilarity-testing (Mussweiler, 2003). The hypothesis-confirmation bias (Spiers & Maguire, 2006) privileges the activation of and access to cognitive ingredients congruent with the focal hypothesis in forming judgments (see also Mussweiler et al., 2004). Consequently, the similarity hypothesis testing produces an assimilation effect (i.e., perceived similarity between self and a target referent in the domain of media influence), resulting in reduced self–other perceptual gaps in media effects. On the other hand, the dissimilarity hypothesis testing leads to a contrast effect (i.e., perceived divergence between self and a target referent), resulting in an increased perceptual gap. Assimilation and contrast effects are both cognitive fallacies—the resulting perceptual gaps are larger than the actual magnitude when assimilation occurs and smaller when contrast happens. Such processes and effects have been well documented in research on the social judgment theory (Granberg, 1982). In the context of TPP and media effects in general, comparative judgments and such assimilation and contrast effects can occur in at least two potential domains: in one’s perception of media effects schemas and in the overall estimates of media effects on self and on target others.

Social comparison can be downward (i.e., self is compared to others who are inferior in the specific content domain) and upward (i.e., self is compared to others who are superior). Social comparison theory suggests that individuals’ choices of comparison others are, in part, determined by (dis)similarity of a target other and perceived benefits and costs of making the comparison (Kruglanski & Mayseless, 1990; Wood, 1989). When self and others are placed on the same level of some normatively evaluative hierarchy (Locke, 2003), the theory predicts that similar, rather than dissimilar, others provide more desirable standards for comparison, especially when the dimension under evaluation is negative (Kruglanski & Mayseless, 1990; Wood, 1989). Such motivated social comparison suggests that when the “other” is perceived to be superior to self in the domain of experiences with the media, individuals tend to avoid social comparison to maintain a positive self-image or to engage in an upward social comparison such that self will be perceived as “more similar” to this superior other in the domain of (resisting) media influence, hence, more desirable outcomes (Kruglanski & Mayseless, 1990; Wood, 1989). Consequently, instead of contrasting with such a target other, individuals actually assimilate with such a person, as in the process of upward social comparison (Collins, 1996), resulting in reduction and/or reversal of the self–other disparities in effects estimation. This line of argument suggests that self–other differences or social distance alone
does not necessarily trigger the egocentric social comparison process that results in TPP (e.g., Cohen & Davis, 1991; McLeod et al., 1997). The social distance corollary might occur only when information on social distance triggers downward social comparison and the contrast effect.

Proposition 5: Biases in self–other perceptual gap in media effects schemas increase when contrast effects occur in comparative social judgments but decrease when assimilation effects happen.

Proposition 6: TPP increases when contrast occurs during social comparison within the domain of media effects but decreases when assimilation takes place.

**Anchoring Effect and Perceptual Shift**

Another mechanism involved in comparative social judgment is the anchoring effect. Assimilation and contrast effects are always relative to an anchor or a reference point. Assimilation effects occur when one’s judgment of the target stimulus shifts toward the anchor. Contrast effects occur when one’s judgment of the target stimuli shifts away from it. Both perceptions of self and of others can function as anchors in social judgments (Karylowski, 1990), and the anchoring effect is considered to be strong, robust, and reliable (Strack & Mussweiler, 1997). In the domain of media effects estimation, the anchoring effect is the joint function of two factors: the order in which media effects are estimated for each referent and the self–other information differential. Assuming the minimal of two referents required in a TPP study, there are two possible orders in which respondents are asked to estimate media effects. They may estimate media effects on themselves first and effects on others second, or the two media effects estimate can be produced in a reverse order: effects on others first and effects on self second. Naturally, individuals are more likely to use self as the anchor in the self-then-other order, and the other tends to be used as the anchor in the other-then-self order (see Otten & van der Pligt, 1996).

Moreover, the anchoring effect can be influenced by the activation of anchor-related knowledge (Chapman & Johnson, 1999). Differences in anchor-related information should then impact possible anchoring effects. Per the self–other information differentials discussed earlier (McGuire & McGuire, 1986; Prentice, 1990; Rogers, 1981), self-related information tends to be in larger amount, in broader range, more concrete, and more certain, whereas other-related information may be limited, vague, diffused, and more uncertain. When the other is the anchor and self is the target, because self-related information is perceived as more specific and valid, perception of self is therefore more rigid and not as easily affected. Hence, the anchoring effect will not be as robust; in turn,
assimilation and contrast effects are less likely to emerge, or will be less pronounced. Alternatively, when self is the anchor and the other is the target, because other-related information tends to be vague and inaccurate, perception of others is more flexible and easily affected. Hence, anchoring effect will be robust; in turn, assimilation and contrast effects are more likely to take place, or in larger magnitude. There has been some initial evidence for significant effects of question order on TPP, particularly when assimilation and contrasts are also primed (David & Johnson, 1998; Shen et al., 2015; see also Perloff, 2002).3 Along this line of arguments is the following:

Proposition 7a: Assimilation and contrast effects are less likely to occur when others function as the anchor than when self is the anchor.

Proposition 7b: The effect size of TPP/FPP would be reduced when others function as the anchor than when self is the anchor.

Conclusion and Directions for Future Research

In this article, TPP is conceptualized as a cognitive fallacy resulting from biased or erroneous information retrieval and processing, with or without the presence of self-enhancement motivation. In extant research, there has been little reflection over the prevalent practice of reducing the construct of TPP to an arithmetic construction of a self–other difference score. Such self–other difference scores could capture some effects, real or methodological, other than TPP or FPP. We emphasize that not all self–other perceptual gaps in media effects are TPP for three reasons: (a) the observed self–other difference might be attributed to sample selection, (b) perception of such gaps might be accurate and valid because the target other in a particular scenario might come from a different population in terms of media consumption and influence, and (c) estimation of such gaps might be logically derived based on lay theories of media effects. Given that TPP research thus far has indiscriminately equated TPP with a self–other difference score, extant empirical findings of TPP, overall, are likely to be biased, and the observed effect size ($d = 0.65$) in the meta-analysis by Sun et al. (2008) could be an overestimate of the “true” TPP as a cognitive fallacy. Unfortunately, it is impossible to investigate such possibilities due to the lack of information from primary studies on relevant variables.

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3There have been studies that reported that question order did not affect the perceptual gap (e.g., Dupagne, Salwen, & Paul, 1999; Price & Tewksbury, 1996). There might also be a full drawer of unpublished studies with null order effects.
There are some actions, however, that researchers can take in future primary studies. First, researchers should specify who the “other” is or what they mean to the respondents. Second, media schemas, or any other potential information ingredients that individuals might use in their lay media effects theories, should be measured and examined. When self and the referent other are from the same population, self–other differentials in media effects schemas and other information ingredients reflect the same cognitive fallacy as in TPP, which might be some form of combination of biases involved in each individual’s media effect schemas. When self and the other are from different populations in terms of consumption of and experience with the media, media literacy, persuasion knowledge, and so on, self–other gaps in media effects schemas and information ingredients could indicate, to a certain degree, valid differences that exist between the two populations. Hence, not all self–other perceptual gaps in media effects constitute TPP. The marginal means after the differences in media effects schemas and information ingredients are controlled for would be a more accurate and precise estimate of TPP. Results without controlling for such factors should be interpreted with caution. On the other hand, the use of generic “other” in characterizing TPP is grossly imprecise and would introduce too much noise into any possible findings.

Specific and concrete information about the other also has important implications for the comparative social judgments involved in TPP. The specific characteristics of the other might determine the direction of social comparisons, which in turn influences the magnitude and/or direction of self–other perceptual gaps. Researchers should specify in what ways the other is different or distant from self instead of simply describing social distance, be it geographical, social, or psychological. Likewise, better information about the media content and nature of media influence should be provided. Certainty about media impact (Paek et al., 2005) and nature of media influence (Reid et al., 2007) can both reduce the biases involved in media effects estimation—which corresponds directly to the nature and magnitude of self–other differentials in perceived media effects, hence the proportion of cognitive bias in the observe self-other difference score.

We set out to develop a more comprehensive cognitive model that would incorporate major approaches in the extant TPP literature. The model depicts two processes involved in rendering media effects estimates: information retrieval and comparative judgment. Such a comparative social judgment model of TPP has a basic premise that, as cognitive misers (Ebenbach & Keltner, 1998), individuals more or less rely on heuristic cues embedded in descriptors of referents to utilize their lay theories via a hypothesis-confirmation procedure when completing effects estimates. We submit that it is the cognitive biases in information retrieval and application, the processes of assimilation, contrast, and anchoring during comparative social judgments that produce TPP as a cognitive
fallacy. We submit that TPP findings in the extant literature, including those described in the “social distance corollary” (Cohen et al., 1988), the “target corollary” (McLeod et al., 1997), the “negative influence corollary” (Gunther & Storey, 2003), and the self-categorization explanation (Reid & Hogg, 2005) can all be accounted for within this model—the factors in these explanations can function as the information ingredients the respondents use to generate media effects estimates. Errors (or the lack thereof) in the retrieval and application of information in the comparative social judgments of media effects directly determine the occurrence and/or magnitude of TPP.

While focusing on cognitive mechanisms, we do not imply that motivations are not relevant to our understanding of TPP. Motivation must be an integral part of the processes that produce such a fallacy. The key is, the cognitive mechanisms that are proposed to produce TPP could be at work regardless of the motivational forces. Media effects estimates, as in all social judgments, are “relational,” “motivational,” and “selective” (Dunning, 2000, p. 374). The challenge for us is to develop a clear theoretical framework to differentiate, incorporate, and explain judgments embedded with motivated and nonmotivated forms of biases (Chambers & Windschitl, 2004). By proposing a cognitive model explicitly intended to strive for theoretical coherence in TPP research, we are also inviting theoretical efforts to incorporate motivations into such a cognitive model.

REFERENCES


