

肆虐全球之新冠狀肺炎與深化之仇中情結：擴展第三人效應理論之基礎和範疇

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摘要

此研究調查在新冠狀肺炎肆虐情境下，可能發生的第三人效應現象。研究納入與檢驗過往被視為理所當然的信息透明性；社會距離、新聞接收和新聞關注等概念亦納入分析模型中。此外，本論文亦是將第三人效應操作為調節變因的少數研究之一；本研究的意義、貢獻和侷限皆於文中深入論述。

- ◎ 關鍵字：第三人感知、第三人效應、社會距離、信息透明性、新聞接收、新聞關注、調節／交叉影響
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The COVID-19 Pandemic and Heightened Hostility Toward China: Expanding The Theoretical Underpinning and Scope Of The Third-Person Perception

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Abstract

This timely study examined the widely documented third-person perception in the context of the raging COVID-19 pandemic. It included a new variable, information transparency, normatively treated as a given in past research. Constructs of news exposure and news attentiveness were included for testing. Additionally, this study is among the first in media effects literature to treat TPP as a moderation variable. The implications, contributions, and limitations of this study are discussed in detail.

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Introduction

The theory of third-person effects (TPE) or third-person perception (TPP) suggests that people are inclined to over-perceive their capability in resisting media influence from negative content while discounting their more distant counterparts' resilience to the very same influence (Davison, 1983). Subsequent research has unveiled a reverse, first-person effect that the same individuals would claim themselves as becoming more susceptible to positive messages than their peers of differential distance (Duck, Terry, & Hogg, 1995; Golan & Day, 2008; Perloff, 1993). Since its inception, this concept has been expanded and adopted in a variety of issues amid myriads of fields, ranging from social politics (e.g., Gunther & Mundy, 1993) to public health (e.g., Li, 2018; Liu & Lo, 2014; Ludolph, Schulz, & Chen, 2018).

Notwithstanding, however, this widely used concept of TPE or TPP has been delimited in terms of its theoretical underpinning. Thus far, past research has essentially presumed media messages explored as accessible and transparent to all users, without questioning the existence or testing the level of information transparency inherent in the issues under close investigation. Transparency of such critical information may have a direct and immediate influence on the acquirement of information and thus knowledge, on which the very third-person perception argument is based. This present research aims to incorporate this critical element and other derived factors into the increasingly important theory given that such media information in many critical or sensitive public issues is not fully disclosed, thus constraining the theoretical scope and even validity of the TPE/TPP paradigm.

The COVID-19 pandemic, by early August 2021, has infected close to 200 million people in over 180 countries, claiming more than 4.2 million lives, and severely impaired all sorts of human activities (World Health Organization, 2021). This extremely contagious virus has prompted tremendous worldwide citizens' fears and criticisms than ever before, due partially to the cover-up of information by various governments, including the identities and whereabouts of the infected persons, the severity of the virus, and the effects of wearing

surgical masks. As this pandemic involves issues more than public health itself, notably political confrontations, this study also examined several key variables used in past TPE/TPP research, such as social distance and political rivalry (e.g., Eveland, Nathanson, Detenber, & McLeod, 1999; Gibbons & Durkin, 1995, Meirick, 2004, 2005). Research findings can expectedly both broaden the scope and strengthen the underpinning of the TPE/TPP theory in that many public issues or social problems contain vast interests of various kinds at a global scale that lead to information hiding at varying degrees.

Theoretical Underpinning and Expansion of the TPP

Information Transparency and Knowledge

TPP has posited and demonstrated that most individuals tend to consider themselves as less susceptible to the influence of media messages than others (Davison, 1983). This widely documented phenomenon is said to be attributed to optimistic bias, (downward) social comparison, or egoism (Park & Salmon, 2005; Perloff, 2002). More specifically, underlying all the above socio-psychological factors is the knowledge possessed by the individual. It follows that those who are—or perceive themselves as—more knowledgeable would be more self-confident and would thus be more inclined to perceive themselves as much less susceptible to media influences than their counterparts possessing no similar (level of) knowledge. This TPP argument and the role of knowledge therein have been assumedly accepted. And even though the potential causal pathway of knowledge leading to biased optimism, downward social comparison, or egoism resulting in misperceiving others as more susceptible has also been widely anticipated, what constitutes or creates the presumed knowledge has never been queried in any past studies (to our knowledge) despite the very fact that the levels of knowledge possessed by individuals vary and more importantly that Davison (1983) has suggested that (technical) information accessibility played a big role in the misperception.

Information is the basis of knowledge and therefore power, which can contribute to the

ego. It appears also that information can be the true underlying force that drives the third-person perception. However, despite this sensible, critical reasoning, to our knowledge, no research thus far has considered the potential impact of key information as a key factor in the analytic models. Specifically, this knowledge-based conception in the third-person effect can be driven by the accessibility or transparency of information. That is, information accessibility determines knowledge acquirement. It follows that the TPP/TPE mechanism can be in effect information transparency-based. But again, to our understanding, TPE/TPP research to date has implicitly presumed information as universally accessible or transparent to all media users. It may not be the case, however. In many situations, essential information about specific concerns—in particular, sensitive, high-stake issues—is withheld for some socio-political considerations, such as saving face or protecting interests of some sort. Such information-hiding scenarios would become much less atypical when dire impacts of the escalating globalization in general and global travels in particular increasingly heighten. Dire impacts include most notably the widespread of any pandemics.

Scholars of varying disciplines have consistently argued that information transparency is founded upon information accessibility (Fung, 2013; Moon, 2020; Turilli & Floridi, 2009; Vakarelov & Rogerson, 2020). Moreover, information transparency is essential for building, sustaining, and improving public trust (Moon, 2020; Spalluto, et al., 2020), though ineffective transparency that prompts inevitable tradeoffs—e.g., in safeguarding public life vis-a-vis personal privacy—could hurt such public trust in a short term (Balog-Way & McComas, 2020; Moon, 2020). Furthermore, the evaluation of tradeoffs (Balog-Way & McComas, 2020) can also be relational, contingent upon the type of groups receiving and using the information (Vakarelov & Rogerson, 2020). Fung (2013) underscores news media as a key intermediary organization in ensuring information accessibility for their individual constituents “because they are best suited to connect broader audiences with complex information and make it accessible to them” (p. 202). News media normatively perform this accessibility principle by ways of daily routine news coverage, and, at times, by shedding pressure on the government, among other political actors (Cuadrado-Ballesteros, Martinez-

Ferrero, Frias-Aceituno, & Garcia-Sanchez, 2017). Logically, the better one is learned and knowledgeable about an issue or problem from more frequent and comprehensive news use, the more one would feel equipped and confident in dealing with it. But individual information users would fall into darkness and become more fearful when crucial information is blocked and inaccessible even to news media as an intermediary institute. In other words, information transparency would affect the level of confidence vis-à-vis fearfulness of information users in handling a problem; and in the context of the pandemic under study, their perceived fear of getting infected.

Moon (2020) expounds on the invaluableness of full information transparency, a costly lesson learned from South Korea's 2015 MERS sufferings, in the country's early success in containing the COVID-19 pandemic, further strengthening its trust surplus. "[A]ll necessary information, including ... details of the movement path of each infected patient prior to being quarantined" (p. 654) was constantly updated, with the aids of apps. Such an agile-adapted, science-over-policy pragmatic approach, Moon argues, effectively reduces uncertainties by ameliorating "efficient decision-making processes for timely and transparent results" (p. 653). In evaluating the aforesaid ethical tradeoffs, nearly 85% of its public chose public safety over privacy consideration, enabling crucially protective actions.

This accessibility-transparency duality should be necessarily and effectively extended to actionability (Fung, 2013; Vakarelov & Rogerson, 2020). Vakarelov and Rogerson (2020) declare that accessible information must be actionable "that can be integrated into... the decision-making mechanisms of the specific domain" (p. 83). In other words, actionability is a precondition of information accessibility, underlying information transparency, meaning that if a piece of accessible, thus transparent, information fails to facilitate decision-making, affording appropriate preventive action, it becomes meaningless. In comparison with South Korea (Moon, 2020), Taiwan has appeared to make the identical mistakes as South Korea confronting the previous MERS disease, that is, failing to make relevant information as transparent as possible. For example, the so-dubbed "masks chaos" was a direct result of the Taiwanese central government providing very confusing information about the "ration" of

the “precious” masks, letting alone the detailed procedures of the levy and distribution left unjustified. More serious is that local governments are prohibited from disclosing certain information related to those infected patients—such as the name or mere location of the quarantining hospitals. As a result, the mayor of Taipei City, among other critics, has at times publicly condemned the central government’s concealment of such crucial information that would have enabled people to effectively protect themselves from the COVID-19 virus (Central News Agency, 2020).

Apparently, accessibility and actionability underlie the acquirement of knowledge. For example, it is inaccessible to read materials prepared in an unknown foreign language even with available and sufficient information (Vakarelov & Rogerson, 2020). It is then understandable that lacking accessibility and transparency to quintessential health information could keep individuals from receiving and utilizing it, thus failing to implement protective health behaviors. The provision and wariness of and action on—or lack thereof—such essential information that empowers individuals in more sensitive issues, in varying degrees, most likely will shift the mechanism of TPP. In a nutshell, information accessibility and thus transparency, upon which knowledge is based, needs to be explicitly measured, instead of implicitly presumed, to examine its potential role in the TPP. Extendedly, information accessibility and transparency that helps garner knowledge would promote individual egoism and thus the third-person perception. For this very reason, this present research incorporates this outright ignored knowledge-deriving crucial factor into its analytic model to explore its role in the TPP mechanism. Accordingly, the first two hypotheses are posed:

H1: A third-person perception exists in the context of COVID-19.

H2: The more transparent the underlying issue information is assessed, the stronger the third-person perception is.

The Roles of Other Key Factors in Third-and First-Person Perception

Since its inception, TPP has evolved to include many factors in accounting for the

socio-psychological phenomenon. Davison (1983) pointed out that (self-perceived) more knowledgeable individuals are more inclined to unveil such a trait due in large part to their ego—to either enhance the self-ego or protect it. This ego-propelled mentality further drives people to normatively perform downward social comparison, considered by some (i.e. Park & Salmon, 2005) as an underlying factor, when evaluating comparative susceptibility to media influence. Subsequent research has produced surprising yet satisfying findings that include the circumstantial reverse third-person effect, or the so-called first-person effect or perception (FPE/FPP), where individuals are inclined to perceive themselves as more, rather than less, susceptible to positive-oriented message influence than others. Whereas news messages about health crises or risks are negative, messages of prevention advice are considered positive, leading respectively to TPP and FPP. The effectual variation due to the nature or desirability of media messages is categorized as the perceptual component of the notion. Increasingly, scholars have scrutinized the behavioral component in conjunction with its preceding and predictive perceptual aspect, and in most cases, the perceptual component would subsequently result in the behavioral component (Golan & Day, 2008; Rosenthal, et al., 2015; Tal-Or et al., 2010).

This continuous theoretical evolvement is further aided by the exploration and addition of key factors, ranging from media exposure and issue attentiveness to social comparison and social distance. These factors have revealed competing moderating effects; while some strengthen the TPP, others weaken or reverse it. The following reviews the major factors found to be associated with TPP.

News Exposure and News Attentiveness

Closely tied to the crucial—but normally overlooked—construct of information transparency is the pragmatic conception of media use. As aforementioned, the better learned and informed individuals presumably could better deal with issues including health crises presented ideally in an elaborate and dutiful manner by the news media. That said, it also leaves to the news audience to more actively and effectively engage in urgent, salient

issues that facilitate their acquirement of key news information and resulting knowledge. That is, the intensity of news use, in terms of news exposure and news attentiveness, will play a significant role in accessing necessary information and garnering knowledge. Issue salience can amplify the third-person effect (Matera & Salwen, 1999), and the ongoing coronavirus is obviously a salient issue, facing not only Taiwan but also the whole world, with more than 180 countries having reported confirmed cases, creating enormous fears therein. Consequently, examinations of the potential impacts of news exposure and news attentiveness, derived from this very salient pandemic, on the third-person perception become even more meaningful both conceptually and pragmatically.

News exposure and news attentiveness are two varied but related concepts (Chaffee & Schleuder, 1986; Pfau, Moy, Radler, & Bridgeman, 1998). The former refers to a more random reception of news information, whereas the latter is a much concerted mental effort in news processing and learning and thus would expectedly generate a stronger media influence on the audience (Chaffee & Schleuder, 1986). Research thus far has suggested a mixed impact of news exposure, but existing evidence could be tilted a bit more toward a positive tie with the perceptual bias due to its widening the knowledge gap (Tran, 2013). In effect, news exposure often acts as a mediator for such predictors as social-economic status (Tran, 2013) and social representations of gender (Nir, 2017) in worsening the knowledge differentials. When coming to its influence on the third-person effect, McNaughton-Cassill and Smith (2002) revealed a significant, positive impact of television news exposure on the perceptual gap concerning social problems. Individuals polled differentially rated the seriousness of the concerns facing their community and the country as a whole. Ludolph, Schulz, and Chen (2018) reported a similar impact of media exposure on a perceptual bias, which in turn leads individuals to perform the recommended health behaviors. Moreover, the predictability of news exposure is reported in studies of impersonal-impact hypothesis (Culbertson & Stempel, 1985; Tyler & Cook, 1984), whose essential assumption mimics that of the TPP. It assumes that mass media would lead individuals to perceive a greater societal risk than a personal risk. The supportive argument was made perhaps most strongly

by Eveland et al. (1999), who claimed that the third-person perception influence is decisively caused by individuals' sheer media exposure, outweighing the significance of social distance.

On the other hand, Liu and Lo (2014) and Wei, Lo, and Lu (2007) have consistently found a reduced or even a reversed impact in individual exposure to health-crisis news messages. Liu and Lo (2014) unveiled a first-person perceptual gap in college students' assessments of relative influences of news coverage of Swine flu. Testing the impersonal-impact hypothesis, Li (2018) found that exposure frequency caused greater personal risk perception whereas exposure extensity generated stronger societal risk perception, a finding not in line with its assumption and was instead more compatible with the reverse third-person perception. The constructs of media exposure in these conflicting studies were all measured by a frequency scale (from frequently to never). We acknowledge the significant contributions of these studies to TPP research. However, some conceptual or methodological issues can be further clarified. In some studies (Liu & Lo, 2014; Wei, Lo, & Lu, 2007, 2010), the TPP appeared simultaneously treated as both an abstract (perceived influence) and a concrete (perceived effects) variable. While they did operationally define what the concrete varying perceived effects from news coverage were, they did not define what constituted the perception of "news about H1N1 flu to have a greater influence on others than on themselves" (Liu & Lo, 2014, p. 388). It is logically reasoned that people feel news coverage affects themselves or other people with some specific influences, such as concerns over getting infected with the virus. In other words, the "perceived-influence" construct should be more concrete, rather than too abstract. A re-conceptualization of the perceived media influence may generate a different outcome in relation to the influence of media exposure. In Li's (2018) study, the Likert-scaled exposure frequency failed to achieve an acceptable level of inter-item reliability, at only .55, but was adopted for model testing, nevertheless. This statistically less-ideal use could have also led to the mistaken conclusions in the reverse third-person perception. However, Li's (2018) construct of exposure extensity, considered a much reliable summative index of news attention to five particular aspects, is indeed tapping into the construct of news attentiveness, or the degree of issue attention paid to by news

users.

This present research—following Chaffee and Schleuder (1986)—also distinguishes news exposure from news attentiveness where the former is referred to as an ordinal-level frequency of news exposure, the latter as the scaled intensity of news attention. Dissimilar to news exposure, news attentiveness could play a suppressive role, prompting instead a first-person effect for at least two reasons. First, when individuals pay close attention to news details, they likely would become increasingly concerned with the viral disease or health problem and thus feel personally more influenced. This reasoning is echoed by Wei, Lo, and Lu (2007, 2010) in two separate studies. They claimed that “because people took the recall news seriously by paying attention ..., they were open to acknowledging the influence of the news... on themselves” (2010, p. 609). They adopted this similar statement to justify their findings of a positive third-person effect in another study (Liu & Lo, 2014). Second, news attention has been found to improve the knowledge and understanding of the audiences about (international) news issues, noticeably narrowing the knowledge gaps (Martin, 2013). As the knowledge gap narrows, the perceptual gap would also be anticipated to shrink, reducing or even reversing the third-person effect from news messages between the observer and the actor. For instance, McNaughton-Cassill and Smith (2002) found that increased news attention diminishes the community-country perceptual differentials about social problems. Despite its potential, strong moderating role, news attentiveness has been rarely adopted in the analytic models. We include this key factor in our present study.

Given the afore-discussed evidence and explications, the following research questions are proposed:

RQ1a: Is news exposure associated with third-person perception?

RQ1b: Is news attentiveness associated with third-person perception?

Social Comparison and Social Distance

As briefly aforementioned, the TPP phenomena have been accredited to individual egoism. Park and Salmon (2005) claimed further that this egoism is normally driven and

protected by people performing downward social comparison when evaluating comparative susceptibility to media influence. It follows that downward or constructive social comparison (Goethals & Klein, 2000), derived from individual subjective perceptions (Festinger, 1954), propels people to protect or restore self-esteem and subjective wellbeing (Harris & Hahn, 2010). It impels people to believe that they feel more fortunate and/or less unfortunate than others facing an unpleasant situation (Perloff, 2002; Weinstein, 1980), falling to “illusions of unique invulnerability” (Perloff & Fetzer, 1986; Weinstein, 1980). Its compensatory function (Stewart, Chipperfield, Ruthig, & Heckhausen, 2013) helps soften individuals’ negative assessments of perceived or genuine threats or risks. F. Lee (2008) revealed implicitly this compensatory function by which less capable individuals consciously keep themselves from messages influences, turning more cynical. However, the legitimate question is, probably no one would consider him/herself as inferior to unknown peers, and, thus, the conventional downward comparison mechanism remains at work. As such, mental comparative evaluations are made through assimilating, contrasting, or anchoring (Shen, Palmer, Kollar, & Comer, 2015). Whereas a contrast effect in enlarging the perceptual gap is more consistent (Bigman, 2014), an assimilation effect is more variable in reducing the bias (Meirick, 2005; Park et al., 2014). The nature of similarity vs. difference—or distance—is multifaceted (Park et al., 2014; Wark & Galliher, 2007).

It follows that social closeness or distance (Bogardus, 1959; Wark & Galliher, 2007) would drive individuals to subjectively evaluate the degree of their shared feelings with people in their life circle. Even in a non-TPP study, So and Nabi (2013) reported impacts from a reduced perceived social distance in mediating subjects’ socio-psychological traits, notably personal empathy with an issue. Social distance, under the framework of the construal level theory (Liberman, Trope, & Stephan, 2007; Trope & Liberman, 2010), is a function of perceived variations between the self and others on different aspects, including perceived awareness, closeness, resemblance, and group affiliation. It then suggests that unfamiliar, dissimilar, and adversarial individuals or groups are conceptually viewed and defined as socially incrementally distant, escalating the perceptual gaps. Social distance has

been operationalized in various ways, ranging from reference group (Meirick, 2005), spatial (Cohen, Mutz, Price, & Gunther, 1988), cultural and racial (Meirick, 2005; Neuwirth & Frederick, 2002), and political (Meirick, 2004).

Operationally, social distance has been measured as a dichotomous or varying-level continuous variable in different studies (H. Lee & Park, 2016; Ludolph, Schulz, & Chen, 2018; Wark & Galliher, 2007). Cohen et al. (1988), in their forerunning study, unveiled the typical influences from Stanford University students' spatial and emotional distances from their (closer) peers, (outer) Californians, and to the (distant) general public. Gibbon and Durkin (1995) also disclosed a positive TPP influence with five differentiated distances. However, Neujwirth and Frederick (2002) critiqued the variable divisions of "others" as too loosely defined. In turn, Meirick (2005) extended the social distance to nine layers on three dimensions—sex, age, and generality. He revealed a diminishing gap in generality—self, friends, other university students, and the general grassroots—toward two types of positive messages. In his previous study, Meirick (2004) identified the influence of both between- and within-group social distance on the perceptual bias toward undesirable content.

This ingroup versus outgroup approach, based on the social identity theory (Tajfel & Turner, 1986), has also been widely adopted (David, Morrison, Johnson, & Ross, 2002; Elder, Douglas, & Sutton, 2006; Meirick, 2004) and has produced equally mixed outcomes due to inconsistent operationalizations. Particularly implicative to this present study is Elder, Douglas, and Sutton's (2006) critical rationalization that ingroup-favoring ("us") messages need to be assumed as positive (and implicitly desirable to its members). The preferred positive ingroup messages would lead to a lesser social distance, resulting in a first-person effect. In contrast, messages praising outgroups ("them") are deemed socially undesirable to the ingroups, and accordingly would augment the social distance and enlarge the third-person perception. This implies that rival groups, such as opposing political parties holding polarizing ideologies, will assess the same media messages in the opposite way, leading to opposite effects.

Taken together, social distance derived from—and likely reciprocally contributed

to—social comparison morphed into varying constructs employed to examine the third-person effect. The current coronavirus outbreak possesses this complex nature. As can be perceived from the press coverage thus far, this highly threatening contagious virus has generated concerns more than mere human health; it has tapped into human conflicts (such as discrimination against the Chinese; one example is the claim that COVID escaped from a Chinese lab; see Maxmen, 2021). A resurging superpower over the last decade or so, China has drawn increasing ire and hostility from parts of the world, including the United States and Taiwan. The general belief that the COVID-19 virus originated from China, and the fact that some politicians insist on calling it the “Wuhan virus” or “Chinese virus” might lead the Taiwanese and the citizens in other nations to view the Chinese as a whole from a more negative light (Jennings, 2020).

In this very case, social distance can also be re-conceptualized as a continuum of friend versus enemy, which might predict a host of attitudes related to this pandemic. Seeing China more as a friend or as an enemy would lead to differentiated perceptions of shifting feelings toward China and Chinese students/immigrants due to this widespread disease. Moreover, how would individual political belief as a feasible moderator affect the differentiated assessments of the aforesaid shifting opinions? This concept is composed of three constructs containing a shared theme of Taiwan’s relationship with China. The decades-long ideological and opinion splits about Taiwan’s identity have divided the island state’s populace. This division has been revealed in a variety of attitudes and behaviors, such as election and party affiliation among the Taiwanese (K.-C. Lee & Yang, 2016; Rigger, 2011). The Democratic Progressive Party (DPP) is more hostile to China and the KMT (Kuomintang or the Nationalist Party) is friendlier. Given the past findings and rationalizations (Davison, 1983; Elder et al., 2006), conflicts expressed in terms of friend versus enemy, polarizing political beliefs, can produce differentiated outcomes. In addition, because the news coverage about the virus outbreak consistently reminds the audience of China, TPP might interact with one’s political stance to create an effect on attitudes toward China and the Chinese in the context of COVID-19. This particular context allows us to explore the potential role of the TPP

mechanism in moderating the above political outcomes. Thus, the following hypotheses and research questions are posited:

H3: Individuals holding a pro-independence-from-China belief are more likely than those holding a pro-reunification-with-China belief to aggravate their negative feelings toward China.

H4a: The more individuals see China as a friend, the less likely they would perceive a shift in the feelings toward China in the context of this pandemic.

H4b: Those who see China as a friend are more likely to perceive a higher level of difference between self's and others' shifting attitudes toward China.

H4c: The more individuals see China as a friend, the less likely they would perceive a shift in the feelings toward Chinese immigrants in the context of this pandemic.

H4d: Those who see China as a friend are more likely to perceive a higher level of difference between self's and others' shifting attitudes toward Chinese immigrants.

RQ2a: Would the effect specified in H4b be moderated by third-person perception?

RQ2b: Would the effect specified in H4d be moderated by third-person perception?

Methods

Sampling

This study on the COVID-19 pandemic is both constrained and enhanced by the very same nature of timeliness. On the one hand, the timing allows the prompt research to be more valid as heightened news coverage of this threatening disease would draw serious media attention. On the other, it weakens the validity of the study due simply to lack of time to obtain immediate research funding for collecting representative survey data. As a result, this research adopts a non-probability sampling method.

The lead author at a local university asked his students in several classes—each with about 60 lower-level students—to invite one parent—either father or mother, or the single parent—to answer an online survey. Students were instructed to ask their one parent based

on the last digit of their student ID; the odd-numbered would seek voluntary help from their father, and the even-numbered (0 included) from their mother. The majority of these parents were believed to be in their 50s and 60s, the most vulnerable age group locally to the coronavirus infection (Taiwan Center for Diseases Control, 2020). In addition, for those with a single parent or with grandparents as the caregivers, the single parent or the last-digit-based grandparent was invited to participate. This extra step could help bring the age group of 70-year or older into this sample. Taken together, the procedures can better ensure the inclusions of major characteristics in the non-probability survey respondents. The students earned extra credits as an incentive. Upper-level and graduate students, whose ages range most likely from 20 to 29, the second most vulnerable group (Taiwan Center for Diseases Control, 2020), were also invited to voluntarily answer the survey. Using social media connections, the second author targeted the age group of 30- to 49-year-old. Survey data were collected from March 6 to March 27, 2020. The sample size is 423, with 41.4% male and 58.6% female respondents.

Operationalization and Measurement of Variables

Media exposure, phrased as “on a typical day, how frequently do you read or watch (online) news about the coronavirus spread?” is a five-point ordinal variable, from the highest frequency of reading or watching (online) news reporting all the time (= 1), to the least frequency of spending no time at all (= 5). This scale was reserved so that a higher number indicates a higher level of exposure. The mean is 3.35, *s.d.* = 1.10. This most basic predictor has normally produced the widely documented TPP influence (Eveland et al., 1999; Ludolph et al., 2018).

Media attentiveness is a question about how much attention survey respondents ($M = 7.63$, *s.d.* = 1.87) pay to news coverage of the ongoing coronavirus spread. This is measured with an 11-point scale, from paying attention all the time (10) to not at all (0). Past research (i.e. McNaughton-Cassill & Smith, 2002) has suggested that this variable often generates a reverse third-person effect.

Information transparency is a single question that asks respondents “How transparent

(from totally =10 to not all at = 0) do you rate the government in its management of the underlying coronavirus-related information of the pandemic?” ($M = 7.5, s.d. = 2.19$).

TPP-related measures begin with a question on whether or not the respondents think frequent news coverage of the COVID-19 virus would increase the fear of being infected by the virus themselves ($M = 6.41, s.d. = 2.44$). Answers are measured on an 11-point scale from 10 (absolutely yes) to 0 (absolutely not). They were also asked to estimate the media effects on their family ($M = 6.85, s.d. = 2.26$), friends and colleagues ($M = 6.73, s.d. = 2.15$), and the general public ($M = 7.40, s.d. = 1.98$). A TPP variable was calculated by subtracting self-scores from the means of the other three groups ($M = .58, s.d. = 1.78$).

Enemy to friend ($M = 12.2, s.d. = 7.63$, Cronbach’s alpha = .79,) as an index variable is combined from three variables concerning China. A higher number on this scale indicates a friendlier attitude toward China. Respondents were asked to assess their feelings first toward China overall ($M = 3.31, s.d. = 2.77$) and then toward the aggressively expanding and leveraging China in recent years ($M = 3.18, s.d. = 2.87$). Moreover, a third question asked how much they agree with A Wall Street Journal’s statement that “China is the real sick man of Asia” (reverse-coded, $M = 5.71, s.d. = 3.43$). All three original variables were measured with an 11-point scale, from very positive or agreed (10) to very negative or disagreed (0). A higher number indicates a friendlier attitude.

Shifting feelings toward China is an additive scale ($M = 35.66, s.d. = 10.63$, Cronbach’s alpha = .90) based on five questions. Survey respondents were asked about how likely this (reportedly originated from China) infectious disease will turn previously positive feelings into negative ones, or worsen the already negative feelings, toward China held by themselves ($M = 6.81, s.d. = 2.96$); immediate families, $M = 6.84, s.d. = 2.71$; friends/colleagues, $M = 7.06, s.d. = 2.35$; the general public, $M = 7.48, s.d. = 2.20$; and the world, $M = 7.47, s.d. = 2.25$). The five questions above were measured on 11 points, from absolutely (10) to absolutely not (0). A higher number on this scale indicates a greater perceived shift in negative feelings toward China. An additional variable on the differences between shifting attitudes toward China between self and the mean of the other four groups was calculated (M

= .41, *s.d.* = 1.91).

Shifting attitudes toward immigrants or students from China is also an additive scale based on five questions ($M = 26.24$, $s.d. = 11.49$, Cronbach's alpha = .87). Respondents were asked about how likely this infectious disease will prompt or intensify hostility or discrimination against the Chinese students studying or spouses residing in Taiwan by themselves ($M = 4.18$, $s.d. = 3.26$); immediate families, $M = 4.29$, $s.d. = 2.99$; friends/colleagues, $M = 4.78$, $s.d. = 2.85$; the general public, $M = 6.08$, $s.d. = 2.44$). This same question was asked of the respondents about their perception of similar reactions of citizens in foreign countries, especially those with infected cases ($M = 6.90$, $s.d. = 2.52$). The five questions above were scaled on 11 points, from absolutely (10) to absolutely not (0). A higher number indicates a more perceived intensified negative attitude toward Chinese migrants. An additional variable ($M = 1.32$, $s.d. = 2.19$) on the differences between shifting attitudes toward Chinese immigrants and students between self and the four other groups was calculated.

Control variables include such typical demographic questions as sex (female = 58.6% of 423, male = 41.4%), exact age (between 16 and 72, $M = 39.38$, $s.d. = 14.57$), education (6-point scale from elementary school to doctoral degree; $M = 3.89$, which is some college, $s.d. = 1.04$), monthly family income (10-point scale from below the minimum wage to over NT \$500,001, which is roughly US \$16,545; $M = 5.26$, which is NT \$70,001-\$100,000 or US \$2,316-\$3,308, $s.d. = 2.03$). Because the relations with China is a dominate issue in Taiwanese politics (K.-C. Lee & Yang, 2016; Rigger, 2011), a 5-point-scale was included to measure one's stand from pro-reunification with China (=1) to status quo (= 3) to pro-independence from China (= 5) ($M = 3.40$, $s.d. = .81$). The latter variable was recoded into a pro- (1 and 2 on the original scale, $N = 26$, 6.1%) versus anti-reunification (4 and 5 on the original scale, $N = 158$, 37.4%) measure, excluding status quo supporters (3 on the original scale, $N = 239$, 56.5%). Further, partisanship is operationalized by a dummy-coded variable of whether one supported the DPP candidate and incumbent Tsai Ing-Wen (= 1, others = 0).

Findings

The first hypothesis concerns whether a third-person perception can be found in the data. Table 1 summarizes the means of measures of media's negative effects on creating fears that one might be infected by the virus. The mean score of media effects on self ($M = 6.41, s.d. = 2.44$) is lower than the means of the other three groups, and the mean differences between groups are statistically significant ($F = 14.72, df = 3, p < .001$). Post hoc tests also show that self-means differ from family-, friends- and public- means. Therefore, H1 is supported.

Table 2 summarizes a series of partial correlation coefficients with age, education, family income, and partisanship controlled. H2 posits that a positive association between perceived information transparency and TPP, which is rejected ($r = -.05, p > .05$). RQ1a asks whether there is a connection between news exposure and a third-person perception. RQ1b asks whether news attentiveness is associated with a third-person perception. The answer to these research questions is that TPP is *negatively* associated with news *exposure* ($r = -.13, p < .01$) and news *attentiveness* ($r = -.19, p < .001$).

H3 states that individuals holding a pro-independence-from-China belief are more likely than those holding a pro-reunification-with-China belief to aggravate their negative feelings toward China because of COVID-19. The partial correlation coefficient is $.12$ ($p < .05$), supporting this hypothesis. An independent samples t-test was also run, with pro- and anti-reunification stands as the grouping variable. As expected, pro-reunification individuals ($M = 29.0, s.d. = 10.60$) tend to hold and perceive less negative feelings toward China than pro-independence ones ($M = 38.76, s.d. = 9.96$), and the difference between means is statistically significant ($t = -4.59, df = 182, p < .001$), supporting H3.

H4a assumes that the more individuals see China as a friend, the less likely they would perceive a shift in feelings toward China in the context of this pandemic. This hypothesis is supported ($r = -.43, p < .001$). H4b (those who see China as a friend are more likely to perceive a higher level of difference between self's and others' shifting attitudes toward China) is also supported ($r = .49, p < .001$). H4c posits that the more individuals see China

as a friend, the less likely they would perceive a shift in feelings toward Chinese immigrants. This hypothesis is supported ($r = -.27, p < .001$). H4d states that those who see China as a friend are more likely to perceive a higher level of difference between self's and others' shifting attitudes toward Chinese immigrants. This hypothesis is also supported ($r = .16, p < .01$).

RQ2a asks whether the effect specified in H4b would be moderated by TPP. That is, whether TPP would moderate the difference between one's attitude and how they perceive others in terms of the association between seeing China as a friend or foe and shifting attitudes toward China. RQ2b asks whether the effect specified in H4d would be moderated by the third-person perception. In other words, would TPP moderate the difference between one's attitude and how they perceive others in terms of the connection between seeing Chinese as a friend or foe and shifting attitudes toward Chinese immigrants?

Two separate path models were created with Haye's (2018) SPSS PROCESS Macro Model 1. The number of bootstrap samples was set at 5,000. The results are reported in Figures 1 and 3. Significant and non-significant moderation (interaction) effects are further visualized in Figures 2 and 4. Results suggest that an interaction effect exists between TPP and the enemy-to-friend scale on the differences in shifting attitudes toward China between self and others. The unstandardized coefficient of this interaction is $.021, s.e. = .006, t = 3.819, p < .001, LLCI = .010, ULCI = .032$. Therefore, the answer to RQ2a is that TPP moderates this association. However, an interaction effect does not exist between TPP and the enemy-to-friend scale on the differences in shifting attitudes toward Chinese immigrants and students between self and others. The unstandardized coefficient of the interaction is $.007, s.e. = .007, t = .929, p > .05, LLCI = -.008, ULCI = .021$. This latter set of results answers RQ2b.

Table 1
Perceptions of Media Effects on Self, Family, Friends & Co-workers, and the Public

	Mean	s.d.
Self	6.41 ^a	2.44
Family	6.86 ^{ab}	2.26
Friends & co-workers	6.73 ^c	2.15
General public	7.40 ^{abc}	1.98

Note: $F = 14.72$ ($df = 3$), $p < .001$; ^{abc} indicate mean differences at the $p < .05$ level in post hoc Scheffe and Bonferroni tests.

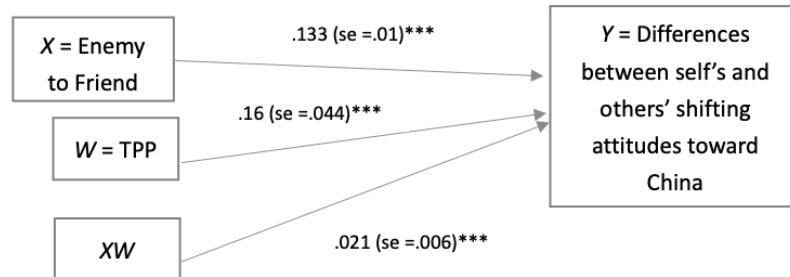
Table 2
Matrix of Partial Correlations

	1	2	3	4	5	6	7	8	9
1.TPP									
2.Transparency	-.05								
3.News exposure	-.13 ^{**}	.03							
4.News attentiveness	-.19 ^{***}	.25 ^{***}	.40 ^{***}						
5.Enemy to friend scale	.04	-.32 ^{***}	.02	-.13 ^{**}					
6.Re-unification to Independence	.11 [*]	.28 ^{***}	.01	.08	-.39 ^{***}				
7.Shifting attitudes toward China	.06	.16 ^{**}	-.03	.06	-.43 ^{***}	.12 [*]			
8.Differences in attitudes toward China	.16	-.24 ^{***}	-.12 [*]	-.18 ^{***}	.49 ^{***}	-.26 ^{***}	-.25 ^{***}		
9.Shifting attitudes toward Chinese immigrants	-.01	.12 [*]	-.09	.10 [*]	-.27 ^{***}	.03	.44 ^{***}	-.09	
10.Differences in attitudes toward immigrants	.21 ^{***}	-.12 [*]	-.01	-.16 ^{**}	.16 ^{**}	-.00	.02	.27 ^{***}	-.31 ^{***}

Note: Controlled for age, education, family income, and partisanship; ^{*} $p < .05$, ^{**} $p < .01$, ^{***} $p < .001$.

Figure 1

Path Diagram of TPP as a Moderator for the Effects of Enemy-to-Friend Scale on Perceived Differences in Shifting Attitudes toward China



Model: $R^2 = .317$, $F = 64.713$ *** (df = 3, 419), constant = $.616$ *** (se = $.077$); *** $p < .001$

Figure 2

Visualization of TPP's Moderation Effects on the Connection between the Enemy-to-Friend Scale and Perceived Differences in Shifting Attitudes toward China

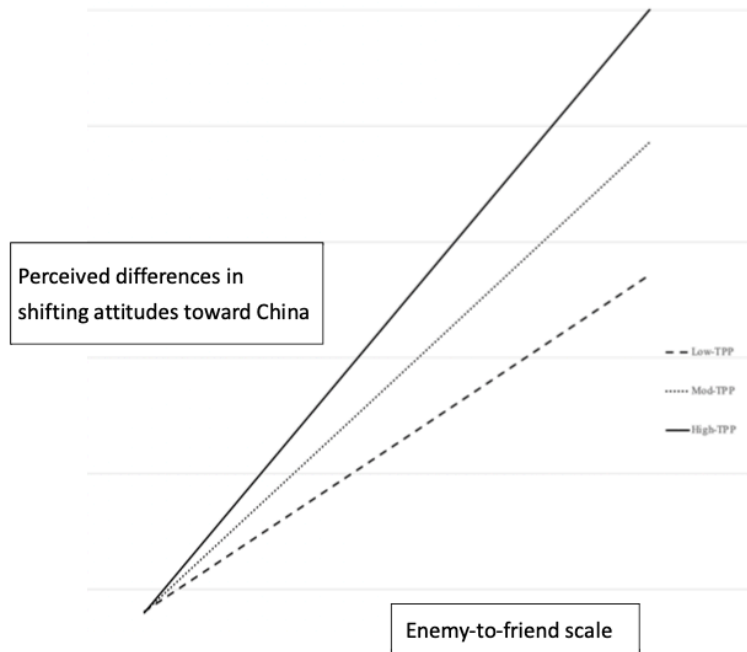
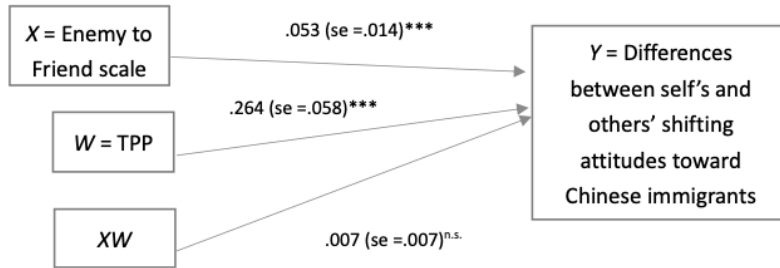


Figure 3

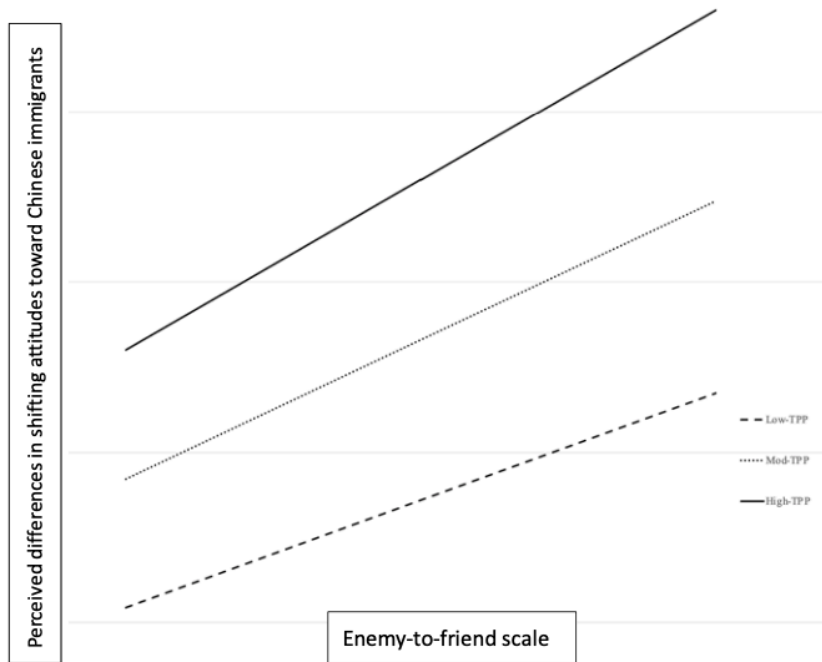
Path Diagram of TPP as a Moderator for the Effects of Enemy-to-Friend Scale on Perceived Differences in Shifting Attitudes toward Chinese Immigrants



Model: $R^2 = .081$, $F = 12.32^{***}$ ($df = 3, 419$), constant = 1.330^{***} ($se = .103$); $^{***} p < .001$; n.s. = $p > .05$

Figure 4

Visualization of TPP's Moderation Effects on the Connection between the Enemy-to-Friend Scale and Perceived Differences in Shifting Attitudes toward Chinese Immigrants



Discussion and Conclusions

All hypotheses except for H2 are supported, suggesting that TPP exists in the context of the COVID-19 pandemic. Also, people's political stance on how to relate to China predicts their attitudes toward China and Chinese immigrants in this context. Those who are pro-independence or seeing China as an enemy, as has been expected, tend to intensify their negative feelings toward China and Chinese immigrants, likely because they blame China for the spread of this lethal virus. Those holding friendly attitudes toward China, on the other hand, are less likely to change their feelings toward China or Chinese immigrants. However, these "friendly" individuals perceive a wider gap in attitudes toward China and Chinese immigrants between themselves and others. That is, they believe that others would develop more negative feelings (than themselves) toward China and the Chinese because of the pandemic. Even though they remain positive toward China despite the virus, they are pessimistic about how others would feel about these two objects.

Unexpected Results

We are surprised that the second hypothesis is rejected. This hypothesis assumes that the more transparent the underlying issue information (about the whereabouts of those infected) is perceived, the stronger TPP is.

As Davison (1983) has long suggested, perceptual biases can be observed in virtually every aspect of our daily life, and particularly in very salient events and issues (Matera & Salwen, 1999). Therefore, it can be anticipated that intensive news reporting of this raging COVID-19 pandemic generates such an effect. The influence in this very context is twofold. It creates individuals' fear of getting infected with the impairing disease, on the one hand, and causes or aggravates their negative opinions toward China widely seen as the culprit of the widespread pandemic, on the other. The findings (H1, H3, and H4), therefore, corroborate past TPP research in public health (i.e. H. Lee & Park, 2016; Li, 2018; Liu & Lo, 2014; Wei, Lo, & Lu, 2010) and political rivalry (Elder, Douglas, & Sutton, 2006). In particular, Elder

et al.'s (2006) conceptual mechanism of “us” versus “them” is effectively shown in this present research. The decades-long ideological splits between pro-independence and pro-reunification—which closely resembles seeing China as a friend versus enemy—among the locales were clearly reflected in their divided evaluations of China and its immigrants as a result of the press coverage of the issue. While individuals’ views of China—on the friend-to-enemy continuum—can directly lead them to shift their perception of Chinese immigrants, the modification is moderated by the third-person perceptual gap in getting infected. The same stands alter the perception of China both directly and indirectly.

The very tricky and confounding results arising from this research are the rejection of hypothesis two and the negative answers to research questions concerning the potential effects of news exposure and attentiveness on the TPP. The lack of the predictability of information transparency is both surprising and expecting. The government had disclosed very little information about the infected individuals, only about their age range, gender, and region of residency (not even city). Information beyond the aforesaid was considered confidential and its (accidental) disclosure would draw severe criticisms and even penalties (Central News Agency, 2020). Despite the fact that people were faced with such tight information control, survey respondents seemed to feel much confident in how the government has been handling this viral spread. This confidence could have been reflected in the relatively low number of confirmed cases to the date of data collection in the island-state, compared with that in most other nations, which had earned commendations from such nations as the United States. This level of confidence—or trust—that seems to moderate the potential impact of information transparency should be ideally included for measurement in future studies using either survey or experimental methods. Likewise, individual perception and evaluation of the government’s performance on the same task could be a feasible moderator for information transparency and could also be included and controlled for the testing.

Another feasible reason arising from the survey data is the relative over-sampling of individuals who voted for the incumbent president Tsai. The Tsai-Han vote ratio in the survey

data was about 1.97 (47.8% for Tsai Ing-Wen versus 24.3% for Han Kuo-Yu), compared with 1.48 (57.1% versus 38.6%) in real outcomes (Sam, 2020). DPP voters are likely to feel much ease and satisfied with how the Tsai administration handled information transparency, thus potentially bringing up its mean value to such a high level. To further investigate the possibility that partisanship played a role in how people felt about this transparency issue (and the null result regarding H2), we ran an independent-samples *t*-test. DPP (Tsai) voters ($M = 8.36, s.d. = 1.42$) thought the government handled COVID-19 related information in a more transparent manner than KMT (Han) voters ($M = 6.04, s.d. = 2.60$), and the difference between means is statistically significant ($t = 10.09, df = 303, p < .001$). This outcome suggests that partisanship has an effect on the assessment of information transparency.

In future research, instead of a single measure, information transparency can and should be indexed with at least eight potential variables/survey questions, effectively considering the varying aspects and attributes of the concept—relativity, accessibility and actionability (Fung, 2013; Vakarelov & Rogerson, 2020), and trust (Balog-Way & McComas, 2020; Moon, 2020; Spalluto, et al., 2020). They specifically include: (1) “How transparent (from totally =10 to not all at = 0) do you rate the government in its management of the underlying coronavirus-related information of the pandemic?”; (2) “Do you think, making the pandemic-related information fully transparent would help people protect from the disease (absolutely protective = 10), or it would make people even more panic (absolutely panic = 0)?”; (3) “Do you agree (from 10) or disagree (to 0) with the extant government policy that prohibits disclosing infected persons’ more specific residential information?”; (4) “Between disclosing essential information for the sake of public safety (from 10) and concealing it for the sake of privacy (to 0), which is more important when facing such a serious public health crisis?”; (5) “To what extent (from totally revealing = 10 to only gender = 1), do you think, information about the infected people should be disclosed for you to feel safe and to effectively protect yourself?”; (6) “How serious (from very serious = 10 to not serious at all = 0) do you feel about the “masks chaos” due to the confusing information provided by the central government?”; (7) “How transparent (from totally =10 to not all at = 0) would you assess

the central government's levy on and distribution of face masks?"; (8) "How trustful (from totally =10 to not all at = 0) are you about the number of infection cases provided by the government?"

The answers to RQ1a and RQ1b indicate that TPP is negatively associated with both news exposure and news attentiveness. We expected TPP to be positively associated with the quantity of news consumption (i.e. news exposure), but negatively associated with the quality of news use (i.e. news attentiveness). News attentiveness, which reflects greater mental effort in information processing, should have a greater media effect than news exposure that acts to receive messages more randomly (Chaffee & Schleuder, 1986). Therefore, those who actively pay more attention to the news might believe that they are more likely to be influenced by the media than others (hence a weaker or even a reverse TPP). This finding is thus in line with McNaughton-Cassill and Smith (2002) and Wei, Lo, and Lu (2007, 2010). By contrast, the negative association between news exposure and TPP is beyond our expectation, and adds to the inconsistency from the past findings that seemed to tilt more toward a positive relationship. In our findings, though, those who simply consume more news (*news exposure*) without much attention might also have a reduced level of TPP.

TPP moderates the association between the enemy-to-friend scale and the perceived differences in shifting attitudes toward China between self and others. As demonstrated in Figure 2, those with a higher level of TPP show a steeper slope between the aforementioned association than those with a moderate and lower level of TPP. One interpretation is that TPP and the social distance or downward comparison between self and others regarding shifting attitudes toward China might be based on the same kind of egoism in terms of believing in one's own superior ability to resist external influences.

On the other hand, TPP does not moderate the connection between the enemy-to-friend index and the perceived differences in shifting attitudes toward Chinese immigrants and students residing in Taiwan between self and others. This discrepancy suggests that China as a country overall is a different construct from the object of Chinese immigrants. Also, it should be noted that the unstandardized coefficient of the interaction (.021 in Figure 1) is

quite small, suggesting a rather weak interaction between the enemy-to-friend scale and TPP.

Taken together, all the predicting and moderating variables discussed above merit further scrutiny not only in their predictability but in their directions and strengths in future studies, in an effort to better clarify their relationships with the TPP phenomena.

In conclusion, findings availed from the survey data suggest that the perceptual bias phenomena can be ubiquitous (Davison, 1983) and that its contributing factors are not universally predictive. First and foremost, information transparency failed to reach its significance for a host of potential social-political reasons. Notable among them is the political alignment that can act to intervening individual assessments of information accessibility, possessing of which affects the effective evaluation of the third-person perception. In other words, the ensuing political climate can create some sort of spiral of silence effects, forcing respondents to dare not express their genuine thoughts in terms of questioning or criticizing how the Taiwanese government handled information about COVID-19. This suspicion seems somehow verified by a student's comment on our survey: "My mom was wondering which political party you (the lead author) side with." Put another way, this informational bias (skewed to more transparency) can be a result of ideological or partisan bias, despite the fact that the DPP government tightly controls relevant information. Moreover, theoretically, information transparency should be effectively integrated into the analytical models in future studies in that accessibility to information often can be constrained in many genres of news events and issues in both democratic and non-democratic societies. It should no longer be presumed as given or constant as information accessibility is not created equal.

One weakness to be acknowledged is the fact that our survey did not include a good measure of individual egoism, which is an important underlying factor of TPP as suggested by the literature as reviewed earlier. Future TPP studies should include it. Finally, the findings of this research should be considered tentative due to the nature of the sampling and how the data were collected. For the sake of timing, this study employed a non-probability sampling method. The non-representative sample data undoubtedly will taint its findings

even though the authors have made every effort to enhance its external validity by asking (and randomly assigning) students to invite their one parent to participate in the online survey based on the final digit of their student ID. This selection process further improved the compatibility of survey data with real-world cases in terms of the distributions of age, sex, and location. In other words, while this study is weakened by its undermined external validity, it does contribute to the existing literature by simultaneously investigating several key moderating factors widely used in past research, albeit with mixed, conflicting outcomes.

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