VICARIOUS INTERACTION WITH POLITICIANS BY IDENTIFYING WITH SURROGATES ON SOCIAL MEDIA: A SOCIAL IDENTIFICATION MECHANISM BASED ON MULTIPLE SALIENT SOCIAL CATEGORIES

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ABSTRACT

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New media platforms display politicians' interactions with people from a variety of social categories. Previous research shows that observers could vicariously experience parasocial intimacy toward a public figure by identifying with a surrogate—an individual who directly interacts with the public figure and who is considered an ingroup member by the observer based on a salient social category (Dai & Walther, 2018). Developments in the social identity literature call for further examination of this surrogacy effect in contexts where multiple social categories are activated as bases upon which observers identify with surrogates. Through two experiments involving a total sample of 1,068 participants, this research demonstrates that when a surrogate's identity is presented as different combinations of political affiliation (democratic or republican) and social status (ordinary voter or politician), the more categories observers share in common with the surrogate, the more they identify with the surrogate, and thereby experiences greater parasocial intimacy toward a politician who is seen replying to the surrogate on Twitter. These findings extend previous findings on a social identification-based mechanism of the surrogacy effect and inform online impression management practices of politician.

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INTRODUCTION

Social media such as Twitter have emerged as a major venue for political exchanges. Twitter, for instance, publically display politicians' interaction with individuals from a variety of backgrounds, creating the potential for observers of these interactions to form impressions of the politicians by observing the way they react to the other actors in the interactions.

Previous empirical research suggests that observers of interactions could vicariously experience parasocial intimacy with a public figure by identifying with an individual whom the observer categorizes as an ingroup member based on a salient group category. That is, when seeing a public figure giving a confirming reply to a person, an observer experiences greater parasocial intimacy toward the public figure if the reply recipient is a layperson (an ingroup member to the observer) rather than a public figure (an outgroup member to the observer). This process is mediated by the degree to which the observer identifies with the reply recipient in the observed interaction (Dai & Walther, 2018).

While previous research demonstrates that identification with a person based on a single salient category enables an observer to vicariously interact with a public figure, developments in social identity research revealed more complex processes of social identification where more than one social category can be activated as the bases for identification (e.g., Crisp, Ensari, Hewstone, & Miller, 2003; Gaertner, Dovidio, Anastasio, Bachman, & Rust, 1993). The findings suggest that a simple dichotomy of in- and outgroup membership may not sufficiently capture whether an observer identifies with a potential surrogate, which will further influence the degree to which an observer can generalize a public figure's reactions to a surrogate onto the observer him-/herself, vicariously interacting with a public figure. These findings, therefore, call for further examinations of the surrogacy process in contexts where multiple categories may be

activated, such as in the case of observing a politician's interaction with a Twitter user, whose social status *and* political affiliation may readily show through information in their profiles.

On Twitter and other social media, politicians could interact with a variety of individuals, whose political affiliations are readily indicated in their user names and various cues displayed in their profiles (Conover, Goncalves, Ratkiewicz, Flammini, & Menczer, 2011). Many social media, such as Twitter, Youtube, and Facebook, also denotes verified accounts of public figures by displaying a sign next to the user's account name ("FAQs about verified accounts," n.d.), in order to facilitate users' recognition of authentic accounts owned by public figures rather than accounts operated by others in the names of the public figures. When an individual observes a political interaction on Twitter, these media feature prompt the observer to self-categorize and identify with the actors involved based on both political affiliation and social status.

Put more specifically, this research investigates (1) how membership to multiple social categories combine to influence the degree to which the observer identifies with the surrogate, and (2) whether different degrees of identification between the observer and the surrogate subsequently lead to different levels of parasocial intimacy the observer experiences toward the politician who interacts with the surrogate.

The following passage will adopt a set of terms to refer to different parties in a vicarious interaction, in order to enhance clarity and brevity. An "observer" refers to an individual who observes an interaction. A "surrogate" refers to an individual who is seen directly interacting with a politician and through whom the observer may vicariously interact with the public figure. A "politician" (in the context of observing politicians' interaction with others) or a "public figure" (in discussions that apply to other types of public figures) refers to the individual who is

seen interacting with the surrogate by the observer and with whom the observer may vicariously interact.

LITERATURE REVIEW

Existing Theories on The Observation of Interactions

The idea of forming impressions from observing interactions has been reflected in theories of interpersonal epistemology and cognitive psychology, although none explicitly describes the process as a form of vicarious interaction nor offers explanations of the mechanism or the contingencies of such a process. Uncertainty reduction theory (URT; Berger & Calabrese, 1975), for example, proposes the idea of passive uncertainty reduction strategies, where individuals learn about a target person by observing him or her in social interactions with others (Berger & Douglas, 1981). The URT, however, does not make it clear whether the process of observing a target person's interactions with others involves any vicarious experience or is purely a process of acquiring information about the target's behavior. Nor does it address the question of what qualities the person interacting with the target (i.e., the surrogate) needs to possess in order to facilitate the observer's uncertainty reduction process.

The idea of vicarious experience through observations is also reflected in social learning theory. The theory proposes that humans learn about the world by watching rewards and punishments for other people's behaviors without directly experiencing it for themselves. It further points out that vicarious learning is more effective if the person directly receiving the rewards/punishment is similar to or closely related to the observer, because the joys and pains inflicted on a similar or a closely related person to the observer is more vicariously arousing to the observer than those of a dissimilar other or a stranger (Bandura, 1971). Although reflecting the idea of vicarious experience through a similar other, social learning theory also does not conceptualize this process as a form of interaction, because it does not address the observers'

perceptions about how the person exerting the reward/punishment is likely to react to the observer him-/herself if they were in a direct interaction.

Vicarious Interaction in Parasocial Interactions

One context where observing a person in interactions constitutes a major tool to form impressions of the person is in parasocial interactions with public figures. A parasocial interaction (PSI) describes the way audience members' respond to media personae as if the interaction is unmediated (Horton & Wohl, 1956). Repeated exposures to media's portrayal of a media persona—be it a real-life public figure or a fictional character—makes the audiences feel that they know the media persona and may lead to a projected relationship from the audience to the persona. This imaginative relationship (also known as a parasocial relationship, or a PSR) is characterized by an imagined sense of intimacy toward a media persona or a public figure and a level of emotional and behavioral attachment to him or her, which can be, in many respects, quite similar to that in an interpersonal relationship (Cohen, 2004; Eyal & Cohen, 2006; Lather & Moyer-Guse, 2011; Sanderson, 2009).

Decades of research on PSI and PSR has identified many factors that underlie the audience's illusion of being in a direct interaction with a media persona or a public figure as well as factors that facilitate audiences' projections of a relationship toward him or her (see for a review, Giles, 2002). The factors identified range from characteristics of the audiences (e.g., Cole & Leets, 1999; Greenwood & Long, 2010; Greenwood, Pietromonaco, & Long, 2008; Wang, Fink, & Cai, 2008), the communication channel (e.g., Hartmann & Goldhoorn, 2011; Lee & Jang, 2011), and the communication message (e.g., Lee & Oh, 2012).

The foregoing research, however, does not explicitly examine audiences' observations of interactions between public figures and other individuals, which the literature suggests may

constitute a way for audiences to experience parasocial intimacy with media figures. Early literature on PSI and PSR acknowledges that audience members can experience vicarious interactions with a public figure by observing his or her interactions with others. For instance, one technique talk show hosts often employ to foster an illusion of intimacy with the audience is to engage in question-and-answer interactions with members of the studio audience. The remote audience who consumes the show from the television feels that it is a part of the interaction by watching the interaction between its studio counterpart and the host. Similarly, a performer may address his or her supporting cast in intimate ways so that the audience who watches the show feels that it is a part of the fellowship by extension (Horton & Wohl, 1956). In both scenarios, the audience who consumes the show from a distance does not overtly interact with the public figure. Rather, it feels as if it experiences an interaction with the public figure by imagining itself in the place of the studio audience or the supporting cast, who function as surrogates to the remote audience who do have direct access to the public figure (Horton & Wohl, 1957).

In contemporary settings, certain features of social media facilitate an audience's vicarious interactions with the public figures. Interactive media record and publicize a public figure's interactions with a variety of social groups, such as family members, friends, acquaintances, fans, and even antagonists (Marwick & boyd, 2011). The juxtaposition of a public figure's interactions with people who have different backgrounds creates potentials for audience members to identify with these individuals (i.e., ingroup members) based on shared memberships to social groups, and thereby finding surrogates through whom to vicariously interact with the public figures.

Surrogates in Vicarious Interactions: A Social Identification-based Mechanism

Who may qualify as surrogates for observers in vicarious interactions? Walther (2015) contends that for a person to qualify as an observer's surrogate, the person must be similar to the observer in critical respects. Such similarities between the surrogate and the observer allow the observer to acquire a sense of how the target person is liable to treat the observer him- or herself by observing the target's reactions to the surrogate.

Walther (2015) further maintains that an observer could come to view a potential surrogate as being similar to the observer him- or herself through the mechanism of social identification. Social identification theory (SIT) proposes that individuals could construe their self-concepts at an individual level or at a group level, depending on whether a context prompts identification (Tajfel, 1974). When social identification occurs, an individual stops seeing him- or herself as a unique person, but rather as an exemplar of a social category embodying characteristics that are prototypical to the social category. In the face of a salient group identity, individuals think of themselves as similar to and interchangeable with the other ingroup members (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). Cognitively, the individual will accentuate the perceived similarities and downplay the differences between the ingroup members (a phenomenon known as "ingroup homogeneity"; Brown & Wootton-Millward, 1993; Devos, Comby, & Deschamps, 1996; Oakes, Haslam, Morrison, & Grace, 1995). Such accentuated similarities between the individual and the ingroup members make the individual feel interchangeable with the other ingroup members and help the individual imagine him- or herself in the place of an ingroup member. As such, if an individual directly interacting with a public figure is deemed an ingroup member by an observer, the individual may serve as a surrogate to the observer to vicariously experience parasocial intimacy with the public figure.

Previous research did provide evidence that social identification constitutes one mechanism through which observers can vicariously interact with public figures. Dai and Walther (2018) found that, when seeing a public figure giving a supportive reply to a layperson (i.e., an ingroup member), a lay observer identified with the reply recipient to a greater degree and subsequently experienced greater parasocial intimacy toward the public figure, compared with when the reply was directed toward a public figure (i.e., an outgroup member). These results suggest that individuals involved in direct interactions with public figures may qualify as surrogates for observers of the interactions through the mechanism of social identification.

When and how does social identification lead to a vicarious interaction through surrogates? Self-categorization theory provides further answers. According to the theory (Turner et al., 1987), the social category to which a person self-categorizes is context-dependent. Individuals self-categorize based on categories that best capture their average similarities to potential ingroup members and dissimilarities to potential outgroup members on that category (Hogg & Reid, 2006). Based on this principle, for example, a female would categorize another female as an ingroup member and a male as an outgroup member, if categorizing based on sex best serves to minimize the ingroup differences and maximize the intergroup differences in the particular context.

In the case of observing a celebrity's interactions with a potential surrogate on social media, one social category that could become the basis for an observer's self-categorization is the social status of the potential surrogate, which many social media visually signify. In order to facilitate users' identification of authentic accounts owned by celebrities, many social media (e.g., Twitter, Facebook, Instagram, Youtube) display a sign (usually a tick) next to a celebrity user's account name. Such visual signifiers often appear together with the user's utterances in a

conversation with others and easily informs an observer of the social status of a user. When observing a public figure's interaction with a potential surrogate, the observer may readily engage in self-categorization with the potential surrogate based on his/her status. As such, it is predicted that,

> **H1.** When observing a public figure's interaction with a potential surrogate on social media, lay observers identify more with a surrogate if he/she is a layperson rather than a public figure.

In the context of observing a political exchange between a politician and a surrogate, other social categories may also emerge as bases upon which an observer identifies with the surrogate, one of which may be political affiliation. Research shows that political affiliation plays a central role in one's social identity (Greene, 1999). It can serve as a strong basis on which people categorize and identify with others, especially in political contexts (Greene, 2004). Empirical research revealed that people exhibited ingroup favoritism toward others who share the same political affiliation as theirs. One study (Fowler & Kam, 2007), for example, found that participants were willing to allocate more lottery tickets to strangers who share the same political affiliation as theirs (at the expense of allocating less for participants themselves) than strangers who had a different political affiliation than theirs. Since many social media users' political affiliations easily leak through their profile pictures, usernames, self-descriptions, preferences of re-tweets, the content of their tweets, and in particular, the the use of hashtags their tweets (Conover, Goncalves, Ratkiewicz, Flammini, & Menczer, 2011), political affiliation could become a basis for social identification with a surrogate by an observer when he/she observes a politician's interaction with others on social media. As such, it is predicted that,

H2. When observing a public figure's interaction with a surrogate on social media, lay observers identify more with the surrogate if he/she shares the same political affiliation with the observers.

Social Identification Based on Multiple Social Categories

The hypotheses above only consider the possibility that an observer engages in self-categorization with a potential surrogate based on one salient category. A potential surrogate, however, could be a member of more than one social category that may simultaneously become salient to an observer, which prompts more complex social identification processes between the observer and the surrogate.

Research on social perception suggests that people simultaneously use multiple social categories to guide the processing of group-relevant social information. Although this body of literature does not deal with social identification per se, it empirically supports an important presumption of identification based on multiple categories—that individuals can view others as members of multiple social categories simultaneously. Several studies (e.g., Arcuri, 1982; Crisp & Hewstone, 2001; Crisp, Hewstone, & Cairns, 2001) suggested that people could best match and memorize social stimuli when they were able to organize the stimuli using multiple social categories. In one study (Arcuri, 1982), for example, participants were presented with a video featuring 8 speakers. Each speaker's face was presented together with his/her utterances in the video. In an attempt to manipulate the method with which participants could mentally organize the visual stimuli, three experimental conditions presented the speakers' identities as different combinations of two social categories: student/teacher and male/female. In the "simple" condition, the conservationists' identities varied only on the category of sex (4 male students or 4 female students). In the "superimposed" condition, the two categories coincided with each other

(4 male students or 4 female teachers). In the "cross" condition, the two categories were fully crossed (4 students, 2 male and 2 female or 4 teachers, 2 male and 2 female). After watching the video, participants completed a cued recall task to match speakers with utterances. Results showed that, out of the three conditions, the difference between intra- and inter-category matching errors was the greatest in the superimposed condition and the lowest in the crossed-category condition, presumably because participants were able to use both sex and profession to organize the stimuli in the crossed-category condition. Other experiments using a same category confusion paradigm (e.g., Crisp & Hewstone, 2001; Crisp, Hewstone, & Cairns, 2001) revealed similar results: When participants were able to use multiple social categories to organize social stimuli, they were the most accurate at matching and memorizing the stimuli, compared with when the presentation did not activate multiple social categories. These findings suggest that people naturally use multiple group identities to categorize other individuals in social perception, which creates the potential for individuals to identify with others based on multiple group categories.

These theoretical perspectives and empirical studies suggest that people rely on multiple social categories in social cognitive processes. The implication of these perspectives on vicarious interactions with public figures in a political context is that the social status and the political affiliation of a surrogate may simultaneously shape an observer's cognitive representation of the surrogate.

How might two social categories operate simultaneously to shape the process of social identification? Decades of empirical research on self-categorizers' evaluations of groups formed by crossing two categories revealed several patterns (Crisp et al., 2003; Urban & Miller, 1998). In the *equivalence pattern*, the four groups formed by crossing two categories are evaluated

equally. In the *additivity pattern*, the double ingroup is evaluated as the most positive, whereas the double outgroup is rated as the most negative. The evaluations of the two crossed groups stand in-between. In the *category conjunction similarity pattern* and the *category conjunction dissimilarity pattern*, the double ingroup and the double outgroup still receive the most positive and the most negative evaluations, respectively. But the two cross groups are either evaluated as positively as the double ingroup (as in the *category conjunction similarity pattern*) or evaluated as negatively as the double outgroup (as in the *category conjunction dissimilarity pattern*). In the *category dominance pattern*, categorizers placed more importance on one category (the dominant category) over the other. The cross group possessing an ingroup identity on the dominant category is evaluated as positively as the double ingroup, whereas the other cross group that is not an ingroup on the dominant category was evaluated as negative as the double outgroup. Finally, in the *hierarchical pattern,* the effect of the lower ranking category upon which individuals' self-categorize depends on the effect of the higher ranking category. Specifically, for the lower ranking group category to take effect, a target must be an ingroup on the higher ranking category. Otherwise, the in- or outgroup status of the target on the lower ranking category is ignored. As such, in the *hierarchical pattern*, the double ingroup is evaluated the most positively, followed by the cross group possessing an ingroup identity on the higher ranking category but is an outgroup on the lower ranking category. The double outgroup and the cross group that does not possess an ingroup identity on the higher ranking category are evaluated equally negatively (Urban & Miller, 1998). To illustrate this pattern with social categories relevant to this research, if the similarity between a surrogate and an observer's social status and political affiliation were to operate in a hiearchical fashion in influencing the observer's identification with the surrogate, the observer would identify with the surrogate to the

highest degree when they share both social status and political affiliations in common. Suppose political affiliation is a higher ranking category than social status, the second highest level of identification would occur when the observer shares the same political affiliation with the surrogate. Identification is equal in situations where the observer shares the same social status with the surrogate, or shares no category in common with the surrogate.

Although each of these six patterns has been observed in empirical research (See Crisp et al., 2003, for a review), an *additive pattern* is recognized in the literature as the most common pattern to be expected when the research method avoids emphasizing one category over another and when all potential moderators are controlled (Crisp et al., 2003). The hypothesis below describes an additive pattern in which the degree of identification with a surrogate by an observer is equally influenced by the similarity of political affiliation *and* social status between the surrogate and the observer.

> **H3.** Sharing the same political affiliation or sharing the same social status both lead to a greater degree of social identification with a surrogate by an observer, such that the more number of social categories an observer shares with a potential surrogate positively, the more the observer identifies with the potential surrogate.

While an additive pattern is the most frequently observed in the previous research, some studies do suggest that two salient categories may not operate equally in influencing identification (Crisp et al., 2003; Urban & Miller, 1998). The literature proposes that the pattern with which the two categories conjointly affect the categorization process is determined by a plethora of context-dependent cognitive and affective factors, such as the importance the self-categorizer places on a social group and the amount of positive affect he/she possesses toward a social group. When such potential moderators take effect, a *dominance pattern* is more likely to

be observed, in which sharing the more important category leads to as much identification as sharing both categories (Crisp et al., 2003; Urban & Miller, 1998).

In the absence of prior knowledge on whether a surrogate's social status and his/her political affiliation may matter more to the observer than the other, it is difficult to articulate the pattern of observers' identification with the surrogate precisely. As such, the following hypothesis describes a non-additive pattern of how a potential surrogate's social status and political affiliation may conjointly shape an observer's identification with the potential surrogate without specifying which one of the two categories is more dominant than the other.

> **H4.** The similarity between an observer and a surrogate's political affiliation combine non-additively with their similarity in social status to influence the observer's social identification with the surrogate, such that the observer identify more with the surrogate when sharing both categories in common or when sharing in common the category that is more central to the observer's self-identity (either political affiliation or social status), compared with when the two share in common the less central category or sharing no category in common.

Noteworthy is that H4 and H3 are competing hypotheses to each other. H4 posits a non-additive relationship between participants' and the surrogate's similarity in social status and political affiliation on participants' identification with the surrogate, while H3 posits an additive relationship between the two.

Finally, since social identification makes an observer feel interchangeable with the potential surrogate and enables the observer to vicariously experience parasocial intimacy with a public figure from observing how the public figure reacts to the surrogate, greater identification

with a surrogate should lead an observer to feel more intimate toward a politician upon seeing the surrogate receiving a confirming reply from the politician. As such, it is proposed that,

> **H5.** The higher amount of identification an observer experiences with a surrogate, the more parasocial intimacy the observer experiences toward a politician who is seen interacting with the surrogate.

Prior Attitude and Message Confirmation Value as Covariates

In order to statistically isolate the effect of a surrogate's identity in the process of vicarious interactions with politicians, one important covariate to consider is an observer's prior attitude toward the politician. The literature on PSI suggests that the development of parasocial relationships shares many similarities with that of interpersonal relationships (Horton & Wohl, 1956). Through repeated exposures to media's portrayal of a public figure, the audience slowly gains confidence in predicting the media persona's intentions and behaviors. Empirical studies provide further support that parasocial relationships resemble interpersonal ones in developmental process and level of emotional involvement (e.g., Cohen, 2004; Eyal & Cohen, 2006; Lather & Moyer-Guse, 2011; Perse & Rubin, 1989).

One implication of the gradual process through which an audience develops parasocial relationships with public figures is that one instance of observed interaction between a public figure and another person may not completely override the observer's prior attitude toward the public figure. Since the research involves exposing participants an interaction between a public figure and another person, participants' prior attitude toward the public figure in the stimulus will act as a covariate in the analyses, in order to examine the effects of the study's inductions on participants' parasocial intimacy toward the public figure after controlling for participants' prior attitudes toward him/her.

Apart from observers' prior attitudes toward a public figure, previous research showed that the nature of the message from a public figure to a potential surrogate in an observed interaction also had a direct impact on observers' perception of the public figure. Research on interpersonal confirmation suggests that interpersonally confirming messages induce intimacy in social interactions, because interpersonal confirmation makes the recipients feel better about themselves (Cissna & Sieburg, 1981). Previous research on vicarious interaction with public figures (Dai & Walther, 2018) also suggests that when a public figure was seen replying to a potential surrogate with a message that was interpersonally confirming, it made observers feel more intimate toward the public figure than when the reply was disconfirming. As such, in analyses that concern participants' perceived parasocial intimacy toward a politician as an outcome variable, the perceived confirmation value of the politician's reply message to the surrogate and participants' prior attitude toward the politician will act as covariates in the analysis, in order to isolate the effects of the identity of the surrogate on observers' parasocial intimacy toward the politician.

Mediation Models Reflected in Hypotheses

It should be noted that the aforementioned hypotheses and covariates form two mediation models. H1 and H2 proposed two simple effects of the similarity between an observer and a surrogate's social status and political affiliation on the observer's identification with the surrogate, respectively. H3 proposes that the two categories that the observer and the surrogate may share in common, political affiliation and social status, combine additively to influence the observer's identification with the surrogate. H4, in contrast to H3, proposes that the two categories that the observer and the surrogate may share in common interact with each other to influence the observer's identification with the surrogate. H5 further extends the causal chain

from observers' identification with potential surrogates to observers' parasocial intimacy toward the public figure.

Taken altogether, H1, H2, H3, and H4 form a mediation model (Figure 1), where an observer's identification with a surrogate mediates the effect of the similarity between the surrogate and the observer in political affiliation and social status on the observer's parasocial intimacy toward the politician. H1, H2, H3, and H5 form a moderated mediation model (Figure 2), where the similarity between an observer and a surrogate's social status interacts with the similarity of their political affiliation to influence the observer's identification with the surrogate, which further influences the observer's parasocial intimacy toward a politician. In both models, the two covariates—observers' prior attitude toward the politician as well as their perceived confirmation values of the reply messages from the politician—both exert a direct positive influence on observers' parasocial intimacy toward the politician.

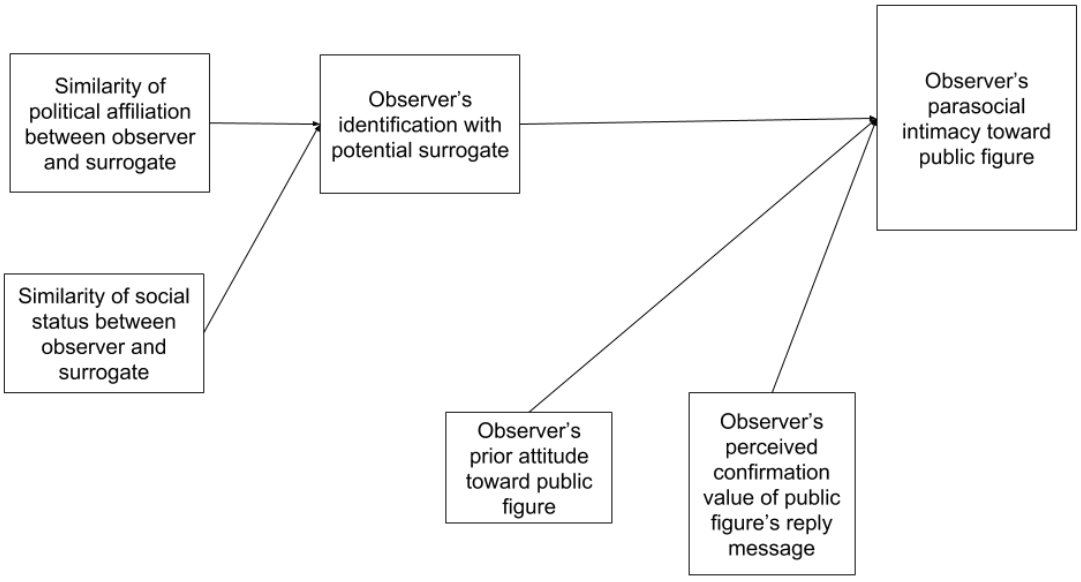

Figure 1. Additive Model Depicting the Mediating Effect of Observers' Identification with A Surrogate (Reflecting H1, H2, H3, and H5).

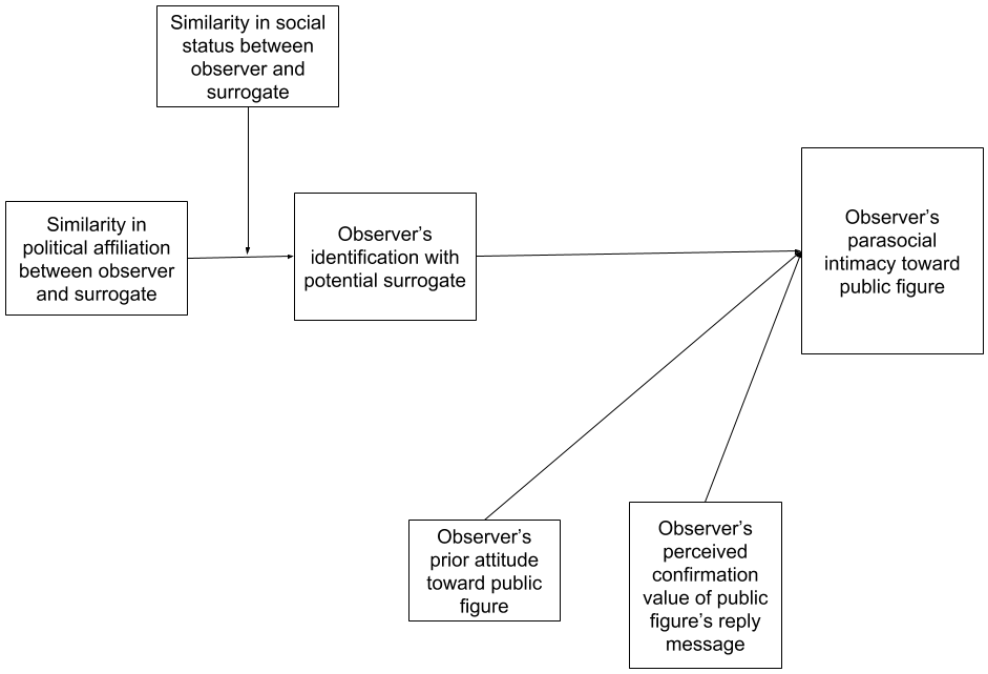

Figure 2. Non-additive Model Depicting the Mediating Effect of Observers' Identification with A Surrogate (Reflecting H1, H2, H4, and H5).

METHOD

Research Design

The research features a 2 × 2 × 2 × 2 between-subject factorial experimental design. Two out of the four factors reflect experimental manipulations. The other two factors reflect replications of the design using two different politicians and two different confirming reply messages. The two experimental factors are (1) the social status of the surrogate (layperson or celebrity) and (2) the political affiliation of the surrogate (same as participants' or different from participants').

As a part of the manipulation of the similarity between participants and the surrogate in their political affiliation, the stimuli presented the surrogate as either a Democrat or a Republican. Meanwhile, an equal number of Democrats, Republicans, and participants who described themselves as being politically independent were recruited for the study. Together with the surrogate's political affiliation manipulated in the stimuli, this creates conditions where participants are either similar or dissimilar to the surrogate in their political affiliation. Research suggests that many people who self-identify as "political independents" actually lean toward a particular party and behave similarly to partisans (Klar & Krupnikov, 2016). Recruiting politically independent participants in this study answers the empirical question of whether they function similarly to partisans when it comes to identifying with Democratic or Republican surrogates and ultimately relating to a politician through observing the politician's reactions to a surrogate.

In addition to the manipulation of a surrogate's identity, the study includes two internal replication factors. First, two different politicians—Joe Biden and John McCain—acted as the politicians who reply to the surrogate in the stimuli. The selection of the two politicians was

determined based on results from a pilot study. Moreover, participants saw one of two confirming reply messages (Cissna & Sieburg, 1981) from Joe Biden or John McCain to the surrogate. Replicating the design using two different confirming messages minimizes potential confounding effects generated by idiosyncratic message features if only one message is used.

Participants' prior attitude toward the two politicians chosen for the stimuli as well as their perceived confirmation value of the reply messages acted as covariates in the analyses

Pilot Studies to Select Politicians and Reply Messages

Pilot studies selected politicians and reply messages for the main study. In exchange for 1 dollar per participant, a panel of 40 registered voters in the United States (M_{age} = 35.73, SD_{age} = 7.29; 65.7% male; 76.7% Caucasian, 13.3% African American, 6.7% Asian, 3.3% Hispanic or Latino) from Amazon Mechanical Turk nominated Democratic and Republican politicians toward whom they had neutral opinions.

Another 240 participants recruited from Amazon Mechanical Turk (M_{age} = 38.45, SD_{age} = 11.66; 52.5% male; 80.8% Caucasian, 7.9% African American, 5.0% Hispanic or Latino, and 4.2% Asian) subsequently rated the five most frequently mentioned politicians from the online panel. The sample includes 35.4% Republicans, 17.9% political independents, and 46.6% Democrats. Table 1 presents the descriptive statistics of participants' attitudes toward each politician. The statistics are weighted by participants' political affiliation, in order to account for potential biases caused by the uneven number of liberal and conservative participants in the sample. Participants' attitudes toward the politicians were measured (see Burgoon, Miller, Cohen, & Montgomery, in the measurement section, below). Based on the statistics, Joe Biden (M = 4.31, SD = 2.03) and John McCain (M = 3.81, SD = 1.59), the two politicians toward whom

attitudes were closest to the middle point of the scale, selected as the politician to use in the stimuli.

In a separate survey, 60 participants (65.5% male; M_{age} = 35.3, SD_{age} = 10.04; 75% Caucasian, 10% African American, 6.7% Asian/Pacific Islander; 5% Hispanic or Latino; 3.3% Other) rated seven reply messages designed to offer interpersonal confirmation to the recipients in a hypothetical interaction between a politician and a person on Twitter. The messages were presented to participants in a counter-balanced order based on randomization. Consistent with the literature on interpersonal confirmation, all reply messages featured content that intends to make the recipients feel better about him- or herself (Cissna & Sieburg, 1981). Participants rated the messages on how interpersonally confirming they are using Sieburg's (1973) Perceived Confirmation Scale (Table 2). The measurement section reports more detailed descriptions of the scale.

A repeated-measures ANOVA assessed the comparative confirmation values of the seven messages, F (6, 58) = 4.18, $p < .001$, $\eta^2_p = .07$. Results showed that, out of the seven messages, the message that had the highest perceived confirmation value was significantly more confirming than the two messages with the lowest means, but it was not significantly different from the rest of the four messages. An equivalence test (Weber & Popova, 2012) revealed that the message with the second highest mean value was statistically equivalent to the message with the highest mean value based on a medium effect size, $\Delta = .30$, $t(59) = -.54$, $p = .02$. These results suggest that, statistically, the difference between the two messages in their confirmation values was not enough to constitute a sizable effect. Based on these results, the two messages with the highest mean confirmation value were chosen to represent confirming reply messages in the main study.

Main Study

Participants

A total of 1,295 registered voters in the United States recruited from Amazon Mechanical Turk participated in the study in exchange for 1.75 dollars per participant. Among these participants, 196 (15.1%) did not correctly recall the identity of the surrogate who received the politician's reply in the stimuli in their answers to the induction check question. The hypotheses testing excluded these participants, leaving a sample of N = 1,086.

Out of the 1,086 participants in the final sample, 32.6% are Republicans, 35.6% are Democrats, and 31.8% identify themselves as political independents. The average age of the final sample is 37.28 (*SD* = 10.85). The sample consists of 54.1% males. Caucasian makes up the majority of the sample (78.7%), followed by African American (6.1%), Asian/Pacific Islander (6.0%), Hispanic or Latino (5.9%), and other (2.1%).

Procedure

Upon starting the online experiment, participants reported their attitudes toward several politicians, including Joe Biden, John McCain, Bernie Sanders, and Donald Trump. In order to avoid sensitizing participants to the purpose of the study, the politicians appeared in a randomized order. Participants were then randomly assigned to see an experimental stimulus and subsequently answered questions regarding their perceived parasocial intimacy toward the politician in the stimulus, their level of identification with the potential surrogate, and some induction check questions and demographic questions.

Stimuli

The stimuli featured two messages sent from two different individuals to either Joe Biden or John McCain (depending on the condition) on Twitter. The identities of the two individuals

(i.e., the two surrogates) contrasted each other on both political affiliation and status. For example, if one of the two messages came from a Democratic senator, the other message would come from a layperson who supported the Republican party (see Figure 3 for an example).

Figure 3. Example Stimuli Featuring Joe Biden Replying to a Democratic Voter on Twitter Contrasted by a Standalone Message from a Republican Politician.

This design ensured that the surrogates in each condition contrasted each other on both social status and political affiliation, in order to maximize the salience of both identities as potential social categories upon which participants engage in self-categorization. Displaying two surrogates and having both categories of their identities contrast each other instead of displaying four surrogates and fully crossing their status and political affiliation (e.g., a Republican senator, a Democratic senator, a Republican voter, and a Democratic voter) helps to reduce the cognitive load from the participants and enhance the induction, since participants would have a higher chance of recalling the identity of the person who receives a reply from the politician out of two surrogates rather than four.

Although varying in wording, the two messages sent to the politician in the stimuli reflected the same theme of expressing concerns over America's political divide. Out of the two messages sent to the politician, only one received a reply from the politician. The other appeared to be a standalone message that addressed the politician but did not receive a reply from the politician. Consistent with the length of real Tweets, all messages featured in the stimuli contained 140 characters or less.

Several cues appearing before and in the stimuli made salient the identity of the potential surrogate to participants. First, prior to viewing the stimuli, participants read a text description designed to make it salient to them that politicians interact with individuals with different backgrounds on social media. The description read,

> Twitter has now become a popular platform for politicians to communicate with people with a variety of social status and political affiliations. You will see screenshots of two messages sent to Senator John McCain/Joe Biden (depending on the condition) on

Twitter from two individuals with different backgrounds. Note that Senator McCain/Joe Biden replied to one of the messages.

The stimuli highlighted the identity of a surrogate in several ways. First, a written narrative that described the identity of the surrogate in the stimuli appeared before each stimulus (e.g., "Below is a message from an ordinary voter Alex Woods, who supports the Democratic party.") Biographical information such as this is often found in Twitter users' profiles, although profiles were not used in this study. The profile pictures of the surrogates corresponded to their status. The profile picture of a politician surrogate featured a capitol building. The profile picture of an ordinary voter featured the symbol of the political party with which the voter was affiliated. The color theme of their profile pictures was also varied to convey their political affiliation (red for Republican surrogates and blue for Democratic surrogates). Besides profile pictures, the hashtags a surrogate used in his/her tweet (e.g., #democrat, #republicans) also indicated his/her political affiliation. Finally, since politicians are public figures, a visual signifier that Twitter employs to indicate verified users—a blue tick placed next to a user's account name ("FAQs about verified accounts," n.d.)—accompanied the account name of a politician surrogate. In conditions were the surrogate was presented as an ordinary voter, there was no blue tick next to his or her account name.

Measures

Parasocial intimacy. A modified version of Canevello and Crocker's (2010) measurement of partner responsiveness measured participants' perceived parasocial intimacy toward the politicians in the stimuli. Items from this scale were modified to reflect the imaginary nature of parasocial intimacy by adding "would" in each item. Participants indicated their answers to 6 questions on a 1-7 Likert scale (1 = strongly disagree; 7 = strongly agree). The data

from previous research testified the validity of this scale as a measurement for parasocial intimacy (Dai & Walther, 2018). Example items include, “s/he would listen to me when I talk”, “s/he would understand my concerns”, and “s/he would be sensitive to my feelings”.

Pre-existing attitude. Burgoon, Miller, Cohen, and Montgomery’s (1978) attitude scale assessed participants’ pre-existing attitudes toward the politician who replied to the surrogate in the stimuli. Items from this scale were general enough to be applied to the evaluation of a politician, while many other scales on attitudes measure a particular issue or subject (e.g., Brown, 1984; Burton, Lichtenstein, Netemeyer, & Garretson, 1998; Yu, Chancellor, & Cole, 2011). The items from the scale include, “foolish-wise”, “unacceptable-acceptable”, “unfavorable-favorable”, “wrong-right”, “bad-good”, negative-positive”.

Identification. Selected items from Cameron's (2004) scale of social identification measured participants’ level of identification with a surrogate. This scale originally contains three dimensions that capture (1) how a social group is central to one’s self-concepts (cognitive centrality), (2) one’s positive feelings associated with being members of a social group (ingroup affect), and (3) one’s perceived similarities with ingroup members (ingroup ties). This research only employs items reflecting the ingroup ties dimension to measure participants’ identification with a potential surrogate, since only this dimension conceptually reflects the underlying mechanism of vicarious interactions with public figures (i.e., an observer’s perceived similarity and interchangeability with a potential surrogate). The items include, “I have a lot in common with [name of the surrogate]”, “I feel strong ties to [name of the surrogate]”, “I find it difficult to form a bond with [name of the surrogate]”, and “I don’t feel a sense of being ‘connected’ with [name of the surrogate]”.

Gauging participants' degree of identification with the surrogate as a person rather than their identification with the social groups to which the surrogate belongs helps to avoid making the questions double-barreled. Although social identification conceptually deals with identification with a social group rather than an individual (Tajfel, 1974), the context of this research justifies the decision to ask the question as such. That is, without prior interpersonal contact or other personal knowledge, the surrogate was no more than a representation of other individuals who shared the same celebrity status and political affiliation with the potential surrogate. Hence, by asking participants how much they identified with the surrogate, the questions can tap into participants' identification with both of the social groups to which the surrogate belongs.

Identity of surrogate. To check whether the induction on the potential surrogate's identity was successful, participants were asked to recall the identity of the potential surrogate in the stimuli by choosing from two screenshots that featured the two individual messages sent to a politician in the stimuli participants saw. Participants who were not able to correctly recognize the reply recipient were excluded from the hypothesis testing.

Message confirmation value. Sieburg's (1973) Perceived Confirmation Scale assessed the confirmation value of a politician's reply message both in the pilot study and in the main study. Participants were asked to indicate how confirming they thought a reply was on a 7-point Likert scale (1 = completely disagree; 7 = completely agree). Example items from the scale include, "John McCain/Joe Biden is aware of the other person", "John McCain/Joe Biden accepts the other person", and "John McCain/Joe Biden has no respect for the other person".

Political affiliation. Participants were asked whether they considered themselves as more of "a Democrat", "a Republican", or "a political independent". This variable and a variable that

represented the surrogate's political affiliation were recoded into a variable that represented the similarity between participants' and the surrogate's political affiliation (see details in the Results section).

RESULTS

Collapsing Cells Based on Message

The study employed two confirming reply messages from politicians to the surrogate in order to enhance the generalizability of its findings. An equivalence test (Weber & Popova, 2012) was conducted to explore whether the two messages were indeed perceived as equally confirming to participants in the main study as intended. The results suggest that, when Joe Biden acted as the source of reply, the messages were statistically equivalent to each other based on a modest effect size according to Cohen's classification of effect sizes, $\Delta = .10$, $t(639) = .34$, $p = .045$. When John McCain acted as the source of reply, the messages were statistically equivalent to each other based on a medium effect size, $\Delta = .30$, $t(648) = 2.39$, $p < .001$. These results suggest that the difference between the two messages was not big enough to constitute a modest effect typically observed in the psychology and communication literature when Joe Biden was the source of the reply, and the difference between them was not big enough to constitute a medium-size effect when John McCain acted as the source.

Based on these results, the cells were collapsed based on message in the subsequent hypothesis testing. Although the equivalence test on messages associated with John McCain suggested a possible, modest difference in confirmation value, subsequent hypothesis tests using data that collapsed across messages supported the same conclusions as when tests were conducted using data from each message separately. As such, the results of the hypothesis tests presented below report the analyses on a dataset collapsed across messages. Analyses on uncollapsed data appear in Appendix B.

Hypothesis Testing

Hypotheses 1 and 2 proposed direct effects of similarity in both social status and political affiliation between participants and the surrogate on participants' identification with the surrogate. An ANOVA tested these hypotheses in which participants' identification with the surrogate acted as the outcome variable. Participants' and the surrogate's political affiliations were recoded into a new variable that represented the similarity in their political affiliation. Conditions where participants and the surrogate had different political affiliations (i.e., participants were Democrats and the surrogate was a Republican, or participants were Republicans and the surrogate was a Democrat) were coded as "1". Conditions where participants and the surrogate shared the same political affiliation were coded as "3". Politically independent participants were coded as "2", since it was unknown how they would identify with Democratic and Republican surrogates. Coding politically independent participants as a separate group allowed for a direct comparison between political independents and participants who clearly identified a political affiliation. This variable, together with a variable that represented the social status of the surrogate (*1 = politician/dissimilar to participants' social status, 2 = ordinary voter/similar to participants' social status)* and another variable that represented the politician in the stimuli (*1 = Joe Biden, 2 = John McCain*), acted as the independent variables in the ANOVA.

Preliminary analyses inspected whether there were any unhypothesized main or interaction effects that would override the main effect hypotheses. The ANOVA did not discover any main effect of politician on participants' identification with the surrogate, $F(1, 1069) = 1.14$, $p = .29$, $\eta^2_p = .001$. Nor did politician interact with the similarity between participants and the surrogate in social status, $F(1, 1069) = 0.29$, $p = .59$, $\eta^2_p = .00$, or their similarity in political

affiliation, $F(1, 1069) = 0.41$, $p = .66$, $\eta^2_p = .00$. There was also no three-way interaction between participants and the surrogate's similarity in political affiliation, social status, and politician, $F(1, 1069) = 1.39$, $p = .25$, $\eta^2_p = .00$.

The main analyses revealed a significant main effect of the surrogate's social status, $F(1, 1069) = 36.97$, $p < .001$, $\eta^2_p = .034$, as well as a significant main effect of the similarity between participants and the surrogate in affiliation, $F(2, 1069) = 157.77$, $p < .001$, $\eta^2_p = .23$, on participants' identification with the surrogate (Figure 4).

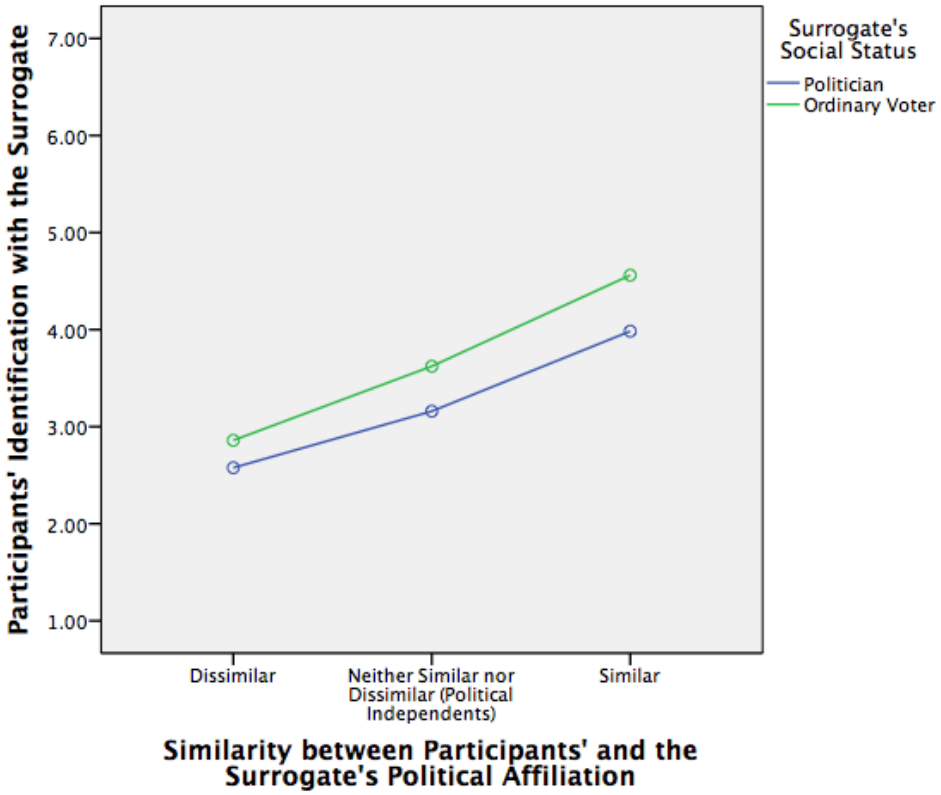

Figure 4. The Effect of Similarity between Participants' and the Surrogate's Political Affiliation and Social Status on Participants' Identification with the Surrogate.

Post-hoc comparisons with Bonferroni corrections revealed that, consistent with H1, participants identified more with a surrogate who was an ordinary voter ($M = 3.71$, $SD = 1.40$) rather than a politician ($M = 3.24$, $SD = 1.29$), $p < .001$. Consistent with H2, Democratic and

Republican participants identified more with the surrogate who had the same political affiliation ($M = 4.29$, $SD = 1.20$) rather than the opposing political affiliation ($M = 2.72$, $SD = 1.23$), $p < .001$. Politically independent participants identified with the surrogate ($M = 3.38$, $SD = 1.17$) *more* than participants who had an opposing political affiliation to the surrogate, $p < .001$, but *less* than participants who shared the same political affiliation with the surrogate, $p < .001$. These results support H1 and H2.

H3 proposed that the more social categories an observer shares in common with a surrogate, the more the observer identifies with the surrogate. To test this hypothesis, a variable was created to represent the number of categories participants share in common with a surrogate. Participants who share either social status or political affiliation in common with the surrogate were coded as "1". Participants who share both categories with the surrogate were coded as "2". Participants who share neither status nor political affiliation in common with the surrogate were coded as "0". An ANOVA model tested H3, with participants' identification with the surrogate as the dependent variable. The number of shared categories between participants and the surrogate and the politician in the stimuli acted as the independent variables in the model. Preliminary analyses revealed no unanticipated main effect of politician on participants' identification with the surrogate, F (2, 1069) = 0.01, $p = .91$, $\eta^2_p = .00$, nor did politician interact with the number of categories shared in influencing participants' identification with the surrogate, F (2, 1069) = 1.29, $p = .28$, $\eta^2_p = .00$.

The main analysis revealed results that were consistent with H3, F (2, 1069) = 117.88, $p < .001$, $\eta^2_p = .18$ (Figure 5). Pair-wise comparisons showed significant differences between the three levels of categories participants shared with surrogates. Consistent with H3, participants who share no category in common with the surrogate experienced less identification toward the

surrogate (M = 2.88, SD = 1.20) than those who share one category (M = 3.47, SD = 1.28), p < .001 or those who share two categories in common with the surrogate (M = 4.56, SD = 1.19), p < .001. A significant difference was also found between participants who shared two categories in common with the surrogate and those who only shared one category in common, p < .001.

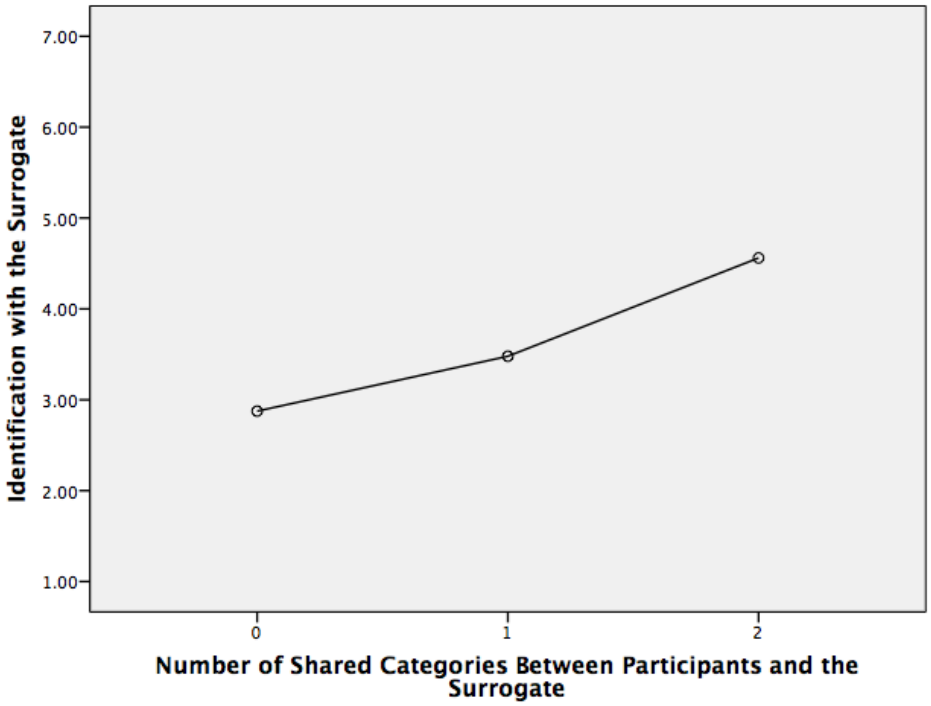

Figure 5. The Effect of the Number of Categories Shared between Participants and a Surrogate on Participants' Identification with the Surrogate.

Hypothesis 4 proposed an interaction between a surrogate's social status and the similarity between participants' and the surrogate's political affiliation on participants' identification with the surrogate. This hypothesis was tested with the same ANOVA model that tested H1 and H2. The analyses did not reveal any significant two-way interaction between a surrogate's social status and the similarity between participants and the surrogate's political affiliation on participants' identification with the surrogate, $F(2, 1069) = 1.42$, $p = .24$, $\eta^2_p = .00$. Post-hoc analysis revealed that the similarity between the participants' and the surrogate's

political affiliation had a consistent, significant effect on participants' identification with the surrogate, regardless of whether participants and the surrogate shared the same social status, $p < .001$, or different ones, $p < .001$. Moreover, the similarity between participants' and the surrogate's political affiliation had a consistent, significant effect on participants' identification with the surrogate, regardless of whether they share the same political affiliation, $p < .001$, or different ones, $p = .025$, or whether their political affiliations were neither similar nor dissimilar (in the case of a politically independent surrogate), $p < .001$. These results are consistent with the two main effects of similarity in social status and political affiliation revealed in the analysis of H1 and H2. In other words, there is no interaction between participants' and the surrogate's similarity in political affiliation and social status on participants' identification with the surrogate, since both of the two factors exert a universal effect at all levels of the other factor. As such, H4 was not supported by the data. In light of the results from the analyses on H3 and H4, the data suggested that shared categories operate additively (as predicted in H3), rather than non-additively (as predicted in H4), when it comes to identification with a surrogate based on multiple salient social categories.

H5 proposed that the degree to which participants identify with a surrogate positively predicts participants' parasocial intimacy toward the politician who was seen replying to the surrogate. Multiple regression analysis tested this hypothesis. In the model, participants' parasocial intimacy toward the politician in the stimuli was the outcome variable. Participants' identification with the surrogate, the politician in the stimuli, and an interaction term between them, acted as the three predictors in the model. Results revealed a significant effect of participants' identification with the surrogate on participants' parasocial intimacy toward the politician, $b = 0.38$, $p < .001$. Politician did not have a significant effect on the outcome variable,

$b = 0.23$, $p = .36$, nor did it interact with participants' identification with the surrogate, $b = -0.09$, $p = .21$. These results support H5.

Finally, mediation analyses tested whether the effect of similarity between participants and the surrogate's political affiliation and social status on participants' parasocial intimacy toward the politician was mediated through participants' identification with the surrogate. Figure 1 and Figure 2 depict two alternative models that differ in their predictions on whether the effect of shared social categories between participants and the surrogate operate additively or non-additively on participants' identification with the surrogate. The mediation analysis was only conducted on the model depicted in Figure 1, since previous analyses revealed that the similarity between participants' and the surrogate's political affiliation and status combined additively (as the model in Figure 1 reflects) rather than non-additively (as the model in Figure 2 reflects) in influencing participants' identification with the surrogate.

The mediation analysis was performed using Hayes' PROCESS (model 4) macro for SPSS. Because the model involves two exogenous variables (i.e., the similarity between participants' and surrogate's political affiliation and social status), the analysis was run twice, each time using one variable as the exogenous variable and the other as a covariate, as recommended by Hayes (2013, p. 196). This procedure allowed for the calculation of separate mediation indexes for each exogenous variable. The analysis (Figure 6) showed that participants' similarity to the surrogate in political affiliation, $b = 0.77$, $p < .001$, and social status, $b = 0.44$, $p < .001$, significantly predicted participants' identification with the surrogate (i.e., the mediator). When participants' identification with the surrogate (i.e., the mediator) simultaneously acted as a predictor for participants' parasocial intimacy toward the politician (i.e., the outcome variable), $b = 0.32$, $p < .001$, together with the two manipulated factors, the similarity between participants'

and the surrogate's political affiliation no longer significantly predicted participants' parasocial intimacy toward the politician, $b = -0.07$, $p = .16$, but the similarity between participants' and the surrogate's social status still did, $b = 0.43$, $p < .001$. In the analysis, participants' prior attitude toward the politician, $b = 0.31$, $p < .001$ and their perceived confirmation value of the politician's reply to the surrogate, $b = 0.49$, $p < .001$ acted as the covariates.

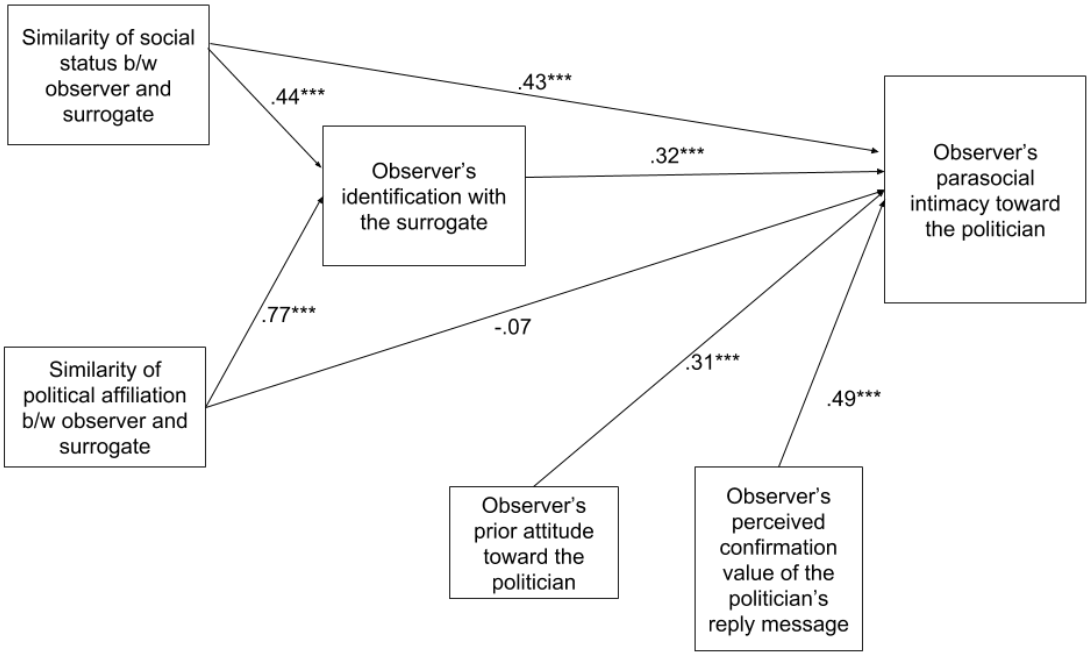

Figure 6. Unstandardized Coefficients of Path Model from Mediation Analysis.

The analyses further showed that, the *direct* effect of the similarity between participants' and the surrogate's political affiliation on participants' parasocial intimacy toward the politician was not significant, 95% bias corrected CI [-.17, 0.03], while the *indirect* effect of their similarity in political affiliation on parasocial intimacy through participants' identification with the surrogate was significant, 95% bias corrected CI [0.20, 0.32]. These results suggest that participants' identification with the surrogate fully mediates the effect of the similarity between

participants and the surrogate's political affiliation on participants' parasocial intimacy toward the politician.

The mediation analysis for similarity of social status suggested that the *direct* effect of the similarity in participants' and the surrogate's social status on participants' parasocial intimacy toward the politician was significant, 95% bias corrected CI [0.29, 0.58]. And, the *indirect* effect of participants' and the surrogate's similarity in social status on participants' parasocial intimacy toward the politician through participants' identification with the surrogate was also significant, 95% bias corrected CI [0.09, 0.21]. Taken together, these results suggested that participants' identification with the surrogate partially mediates the effect of their similarity in social status on participants' parasocial intimacy toward the politician. As such, the mediation model depicted in figure 1 received support from the data.

DISCUSSION

This research investigated a process of vicariously interacting with politicians by observing their interactions with others on Twitter. Previous research discovered that observers of public figures' interactions with others could identify with the individual who directly interacts with a public figure based on shared membership to a salient social category. This identification process makes the individual a surrogate to the observer to subsequently experience parasocial intimacy with the public figure from observing how the public figure reacts to the surrogate (Dai & Walther, 2018). More recent literature on social identification pointed to the possibility of identifying based on multiple (rather than a single) social categories. This poses the question of how the number of social categories an observer shares with a surrogate influences the way the observer vicariously interact with a public figure. The present study investigated this question in the context of observing an interaction between a politician and a potential surrogate on Twitter, where political affiliation and social status may both emerge as salient categories upon which an observer could engage in identification with a surrogate. The findings revealed theoretical implications for social identification and vicarious interaction through surrogates.

Implications for Vicarious Interaction with Public Figures through Surrogates

The focus of this research is the nature of the surrogacy effect when an observer shares multiple social categories with a surrogate. Depending on the condition, the stimuli presented the surrogate as sharing zero, one, or two categories with the observers in common. The findings showed that an observer identified to the greatest extent with a surrogate when sharing two categories with him/her. An observer identified to the least extent when sharing no category with him/her. The level of identification an observer experiences toward a surrogate when sharing one

category, either social status or political affiliation, falls between situations where they share no categories or two categories in common. In other words, neither social status nor political affiliation operated in a more dominant fashion than the other in shaping an observer's identification with a surrogate.

The linear relationship between the number of group categories shared between observers and the surrogate and the observers' identification with the surrogate is consistent with Crisp et al.'s (2003) observation that when two orthogonal categories are made equally salient in the one context, self-categorizers tend to follow the same rule for categorizing ingroup and outgroup members as they do when only one category is salient. That is, people self-categorize based on a general principle of maximizing the difference between categories and minimizing the difference within a category. As a result of such a categorization principle, the double ingroup is differentiated from the double outgroup to a greater extent than it is differentiated from the two mixed groups, as evidenced in the pattern of identification from observers to the surrogate in the study.

Regarding the mechanism of vicarious interaction with public figures, the findings extended the previous literature by revealing that an observer of an interaction between a public figure and a surrogate can relate to the surrogate based on multiple salient social categories simultaneously. More importantly, mediation analyses show that, the more categories an observer shares with the surrogate, the stronger the identification, and the greater parasocial intimacy the observer experiences toward the public figure. These findings provided evidence to a social identification-based mechanism of the surrogacy effect in vicarious interaction with public figures.

Noteworthy is that the results from the analyses on data using either Joe Biden or John McCain revealed the same surrogacy effect, despite the fact that the two politicians were affiliated with different political parties. That is, whether the politician was a political ingroup or a political outgroup to the observer did not interfere with the surrogacy effect. All participants developed greater parasocial intimacy toward a politician upon seeing the politician giving a confirming reply to a surrogate who was similar to the participants themselves. These findings have important implications on politicians' impression management practices on new media. Research on politicians' use of social media revealed that many politicians primarily use social media as a platform for unidirectional broadcasting to followers without engaging in many direct interactions with them (Graham, Broersma, Hazelhoff, & Haar, 2013; Kalsnes, 2016). The findings from this research suggest that publically engaging in confirming interactions with followers constitutes an effective strategy to build positive impressions of a politician, in particular for reaching out to followers who are affiliated with an opposing party.

Beyond the context of vicarious interaction with politicians, the findings of this research apply to the observation of any interaction publically displayed online where the observer could relate to one of the actors through one or more salient social categories. In many online environments, the dominant form of user participation is lurking rather than actively posting messages (Schlosser, 2005). Given how frequently Internet users observe interactions, the findings from this research provide a novel approach to understand how Internet users process online messages that are delivered through interactions. For example, in a health community where people exchange health advice, one way to understand what leads the lurkers to adopt certain health practice while ignoring others is to look into whether the health advice was given

to someone who might share the same health concern with the lurker, who may constitute a surrogate to the lurker.

Meanwhile, although the nature of the reply message a politician sent to a surrogate was not a focus of the present research, equivalence tests revealed slightly different findings regarding the perceived confirmation value of the reply messages when they originate from Joe Biden and John McCain. It seems that for Joe Biden, the two confirming messages used were perceived as being more equivalent in their confirmation values than when they originate from John McCain. The literature on interpersonal confirmation mainly focuses on how features of a message influence the amount of intimacy from the message recipient to the message source (Cissna & Sieburg, 1981). These findings suggest that the source of a message may influence the confirmation value of the message. Even messages that are perceived as being equally confirming may be perceived as having different confirmation values when they originate from different sources.

Limitations and Future Directions

Despite its theoretical and practical contributions, this research suffers from several limitations and leaves open questions that should be addressed in future research. Most notably, in order to strengthen the induction, the research emphasized the identity combinations of the surrogates in several ways. Although a strong induction is critical in achieving internal validity of an experimental design, it invites the question of whether the same effect can be found when observers are not exposed to deliberate efforts to highlight the identity of the surrogates. Although field experiment did reveal that following a politician's social media led to more positive impressions of the politician (Kobayashi & Yu, 2015), it was unclear how much of this was due to observing the politician's interactions with others. Future research should seek to

replicate the design in less controlled environments in order to test the generalizability of its findings.

Moreover, to maximize the effect of the experimental manipulations on participants' impressions of a politician, the present research utilized two politicians toward whom voters had relatively neutral opinions. It is worthwhile for future research to replicate the findings on politicians who are more controversial, in order to see whether observers' prior attitude toward a politician constitutes a potential moderator to the effects discovered in this research.

The surrogates in the stimuli had potentially gender-neutral names (i.e., Alex and Sam), in order to minimize the possibility for participants to identify with the surrogates based on sex. Still, it is unclear what gender participants assumed the surrogates to be, and, more importantly, whether participants could have identified with the surrogates partially based on their similarity to the surrogates' gender. Further analyses and future research should investigate the potential effect of perceived gender of the surrogate after participants' exposure to the stimuli, in order to to investigate another potential form of identification that enhanced or confounded the similarity between participants and the surrogates.

One factor that was not addressed in this research is the fact that in many online environments, observers can find individuating cues of a surrogate that may allow an observer to form interpersonal impressions of the surrogate rather than ones that are purely based on group identity. Of particular relevance to the context of observing public figures' interactions with others is the potential presence of visual representations of a surrogate, which is theoretically recognized as an individuating cue that could dampen group-based identification in online environments (Reicher, Spears, & Postmes, 1995). It is worthwhile for future research to investigate, for example, whether the presence of a profile picture of a surrogate moderates the

effect of shared social categories between observers and the surrogate on observers' parasocial intimacy toward the public figure who is seen interacting with the surrogate.

Other than visual representations of the actors involved, another important future direction for the research on surrogacy effect is the valence of the message from the surrogate. In this study, the messages sent from the surrogates to the politician were neutral in valence (i.e., expressing concern over America's political divide). Previous research revealed, in contexts where multiple categories are activated as the bases for social identification, that people utilized the categories in a hierarchical fashion to categorize a target depending on the valence of the target's behavior. For example, when a narrative presented a target's identity as different combinations of gender and nationality, participants tended to recall details of the story better when the target engaged in positive behavior and when the target was an ingroup member to them based on gender. When the behavior of the target was negative, participants tended to recall the story better when the target was an outgroup member to them based on nationality (Crisp & Hewstone, 2001). It is possible that the additive pattern with which participants identified with the surrogates observed in this study only obtains when the surrogate sends a neutral message to the public figure. In situations where a surrogate is rude to a public figure, observers may dis-identify with the surrogate based on one of the salient categories, which will further influence the outcome of the observers' vicarious interactions with the public figures. Future research should explore the effect of a surrogate's message on the surrogacy effect in vicarious interactions with public figures.

CONCLUSION

To conclude, the present study investigated a mechanism of vicariously experiencing parasocial intimacy toward a politician by observing the politician interacting with a person whom the observer may deem as an ingroup member based on multiple salient social categories. The findings inform the literature on social identification and extend the previous research on the surrogacy effect in vicarious interactions with public figures. The findings also inform impression management practices of politicians on social media by revealing benefits to directly interacting with members of other political groups, as well as point to important directions for future research.

APPENDICES

APPENDIX A
MEASUREMENT SCALES

Political Affiliation

Would you consider yourself as more of a Democrat or a Republican?
a. I'm closer to a Democrat b. I'm closer to a Republican c. I'm politically independent
(If a)
Would you consider yourself a strong Democrat?
a. A strong Democrat b. Not a very strong Democrat

(If b)

Would you consider yourself a strong Republican?

a. A strong Republican b. Not a very strong Republican

Pre-existing Attitude toward Politician (Burgoon, Miller, Cohen, Montgomery, 1978) (7-point bi-polar scale; 1 = does not describe the target at all; 7 = describes the target very well)

Foolish 1 2 3 4 5 6 7 Wise
Unacceptable 1 2 3 4 5 6 7 Acceptable
Unfavorable 1 2 3 4 5 6 7 Favorable
Wrong 1 2 3 4 5 6 7 Right
Bad 1 2 3 4 5 6 7 Good
Negative 1 2 3 4 5 6 7 Positive

Parasocial Intimacy (Modified from Canevello & Crocker, 2010) (7-point Likert scale; 1 = strongly disagree; 7 = strongly agree)

I think if I were to have a direct interaction with [name of politician chosen for the main study], she/he…
Would listen to me when I talk.
Would understand my concerns.
Would be sensitive to my feelings.
Would make me feel comfortable about how I feel.
Would make me feel cared for.
Would make me feel valued as a person.

Identification (selected from Cameron, 2004) (7-point Likert scale; 1 = completely disagree; 7 = completely agree)

Please indicate how much you agree with the following statements:
I have a lot in common with [ingroup members].
I feel strong ties to other [ingroup members].
I find it difficult to form a bond with other [ingroup members].
I don't feel a sense of being "connected" with other [ingroup members].

Induction check on identity of potential surrogate
In the screenshot I just saw, the person receiving [name of the politician chosen for the main study] reply is a:

- Politician who represents the Democratic party
- Layperson who supports Republican candidates
- Politician who represents the Republican party
- Layperson who supports Democratic candidates

Confirmation Value of Reply Message (Adapted from Sieburg, 1973) (7-point Likert scale; 1 = completely disagree; 7 = completely agree)

Please indicate your thoughts on Katy Perry's response to the other person in this conversation…

She is aware of the other person
She isn't at all interested in what the other person says
She accepts the other person
She has no respect for the other person
She dislikes the other person
She trusts the other person

Twitter Use

Have you used Twitter before?

- Yes
- No

Demographics

What is your gender?
- Male
- Female

What is your age?
What is your occupation?
How would you describe your primary ethnic heritage?
- European
- Asian
- Hispanic
- Pacific Islander
- Native America
- African
- Other

APPENDIX B
DESCRIPTIVE STATISTICS FROM PILOT STUDY

Table 1.
Descriptive Statistics of Participants' Attitudes toward Politicians

	M	*SD*
Bernie Sanders	4.56	2.15
Chuck Schumer	3.59	1.67
Joe Biden	4.31	2.03
John McCain	3.81	1.59
Marco Rubio	3.38	1.69

Note. Statistics are weighted by participants' political affiliations.

Table 2.
Descriptive Statistics of Participants' Perceived Confirmation Values of Reply Messages Tested in Pilot Study

Message Content	*M*	*SD*
1. I feel you. But years in politics led me to believe what binds us together is greater than what separates us apart. That's where hope is.	4.98[a]	1.41
2. I share your skepticism. But people like you remind us that we have a stake in each other. We will move forward acting on that ground.	4.99[a]	1.45
3. Thank you for caring enough to ask a question like this. Can't say I'm an optimist, but you and people like you always give me confidence.	5.23[a,c]	1.46
4. Politics solved problems only because of people who care enough like you. Thank you for giving me more confidence about our future.	5.32[a,c]	1.41
5. I think politics will not solve every problem, but if enough of us care like you do, we will at least get something good done.	5.44[a,c]	1.28
6. Politics is not the way to solve our problems. You and people like you are. You make me look forward to the future. Thank you.	5.54[a,c]	0.99
7. Been struggling with the same question myself. Thank you for reminding me that I am not alone. We will move forward because of people like you.	5.63[b,c]	1.30

Note. Different superscripts indicate significant pairwise differences between reply messages. These replies were directed at a message that reads, "What do you think of today's huge political divide in our country? Is politics a way to solve our problems?" Message 6 and 7 were selected to use in the main study.

APPENDIX C
ADDITIONAL ANALYSES ON DATA FEATURING JOHN MCCAIN

Additional hypothesis testing was conducted on the data from conditions where John McCain acted as the politician, without collapsing the cells based on message, because the results from the equivalent test on the messages did not rule out the possibility that they could be non-equivalent in their confirmation value (although the difference of such a potential difference would be very unsubstantial).

Hypotheses 1 and 2 proposed effects of participants' and the surrogate's similarity in social status and political affiliation on participants' identification with the surrogate. These hypotheses were tested with ANOVA, in which participants' identification with the surrogate as the outcome variable. Two variables representing the similarities between participants' and the surrogate's political affiliation and social status acted as the predictors in the model. Separate analyses were conducted on datasets featuring reply message 1 and reply message 2, respectively. Results from the analyses on message 1 revealed a significant main effect of the surrogate's social status, $F(1, 292) = 4.05$, $p = .045$, $\eta^2_p = .014$, as well as a significant main effect of the similarity between participants and the surrogate in affiliation, $F(2, 292) = 63.29$, $p < .001$, $\eta^2_p = .31$, on participants' identification with the surrogate. Planned post-hoc comparisons revealed that, consistent with H1, participants identified more with a surrogate who is an ordinary voter ($M = 3.47$, $SD = 1.35$) rather than a politician ($M = 3.25$, $SD = 1.24$). Consistent with H2, Democratic and Republican participants identified more with the surrogate who had the same political affiliation ($M = 4.27$, $SD = 1.14$) rather than the opposing political affiliation ($M = 2.54$, $SD = 1.08$, $p < .001$). Politically independent participants identified with the surrogate ($M = 3.32$, $SD = 1.05$) *more* than participants who had an opposing political affiliation to the surrogate ($p = .004$), but *less* than participants who shared the same political affiliation with the surrogate ($p < .001$).

Results from the analyses on the dataset featuring reply message 2 supported the same conclusions, revealing a significant main effect of the surrogate's social status, $F(1, 253) = 16=3.40$, $p < .001$, $\eta^2_p = .05$, as well as a significant main effect of the similarity between the participants' and the surrogate's political affiliation, $F(2, 253) = 31.14$, $p < .001$, $\eta^2_p = .20$, on participants' identification with the surrogate. Post-hoc analyses revealed that, consistent with H1, participants identified more with a surrogate who is an ordinary voter ($M = 3.81$, $SD = 1.42$) rather than a politician ($M = 3.26$, $SD = 1.31$, $p < .001$). Democratic and Republican participants identified more with the surrogate who had the same political affiliation ($M = 4.28$, $SD = 1.27$) rather than the opposing political affiliation ($M = 2.80$, $SD = 1.36$, $p < .001$). Politically independent participants, which are neither similar nor dissimilar with the surrogate in political affiliation ($M = 3.37$, $SD = 1.17$), identified with the surrogate *more* than participants who had an opposing political affiliation to the surrogate ($p = .009$), but *less* than participants who shared the same political affiliation with the surrogate ($p < .001$). As such, H1 and H2 are supported in the analyses on reply message 1 and reply message 2.

H3 proposed that the more social categories an observer shares in common with a surrogate, the more the observer should identify with the surrogate. This hypothesis was tested with ANOVA, with the number of categories participants share in common with the surrogate as the predictor and participants' identification with the surrogate as the outcome variable.

The analyses on the dataset featuring reply message 1 revealed a significant effect of the number of categories shared between participants and the surrogate on participants'

identification with the surrogate, F (2, 292) = 33.15, $p < .001$, $\eta^2_p = .19$. Post-hoc analyses revealed significant differences in participants' identification toward the surrogate between pair-wise comparisons among the three levels of categories shared between participants and the surrogate. Consistent with H3, participants who share no category in common with the surrogate experienced less identification toward the surrogate ($M = 2.88$, $SD = 1.23$) than those who share one category ($M = 3.27$, $SD = 1.24$, $p = .04$) or those who share two categories in common with the surrogate ($M = 4.52$, $SD = 1.10$, $p < .001$).

The analyses on the data featuring reply message 2 also supported H3, revealing a significant effect of the number of categories participants shared with the surrogate on participants' identification with the surrogate, F (2, 253) = 29.16, $p < .001$, $\eta^2_p = .19$. Participants who share no category in common with the surrogate experienced less identification toward the surrogate ($M = 2.91$, $SD = 1.22$) than those who share one category ($M = 3.53$, $SD = 1.32$, $p = .002$) or those who share two categories in common with the surrogate ($M = 4.72$, $SD = 1.14$, $p < .001$). As such, H3 was supported in the analyses on both reply message 1 and reply message 2.

Hypothesis 4 proposed an interaction between a surrogate's social status and the similarity between participants' and the surrogate's political affiliation on participants' identification with the surrogate. H4 was not supported in the analyses on either message 1 or message 2. This hypothesis was tested with the same ANOVA model that tested H1 and H2. The analyses on reply message 1 did not reveal any two-way interaction between a surrogate's social status and the similarity between participants and the surrogate's political affiliation on participants' identification with the surrogate, $F(2, 292) = 1.27$, $p = .28$, $\eta^2_p = .009$. Nor was the two-way interaction discovered in the analyses on John McCain, $F(2, 253) = 0.84$, $p = .43$, $\eta^2_p = .007$. These results show that shared categories operate additively (as predicted in H3), rather than non-additively (as predicted in H4), when it comes to identification with a surrogate based on multiple salient social categories. H4 was not supported in the analyses on reply message 1 or reply message 2.

H5 proposed that the degree to which participants identified with a surrogate positively predicted participants' parasocial intimacy toward the politician who was seen replying to the surrogate. Analyses showed that the correlation between participants' identification with the surrogate and their parasocial intimacy toward John McCain was significant and positive, $r = .30$, $p < .001$, when McCain is seen replying to the surrogate with reply message 1. Participants' identification with the surrogate and their parasocial intimacy toward John McCain was also significant and positive, $r = .50$, $p < .001$, when McCain is seen replying to the surrogate with reply message 2. These results support H5.

Finally, in addition to the analyses on individual hypotheses, mediation analyses tested whether the effect of similarity between participants' and the surrogate's political affiliation and social status on participants' parasocial intimacy toward John McCain was mediated through participants' identification with the surrogate, as depicted in the path model in Figure 1. The mediation analysis was performed using Hayes' PROCESS (model 4). Because the model involves two exogenous variables (i.e., similarity between participants' and surrogate's political affiliation and social status), the analysis was run twice, each time using one variable as the exogenous variable and the other as a covariate (Andrew Hayes, 2013), so that separate mediation indexes could be computed for each exogenous variable.

Results from the analyses on reply message 1 showed that, participants' similarity to the surrogate in political affiliation ($b = 0.86$, $p < .001$) and social status ($b = 0.27$, $p = .03$) significantly predict participants' identification with the surrogate (i.e., the mediator). When

participants' identification with the surrogate (i.e., the mediator) simultaneously act as a predictor for participants' parasocial intimacy toward McCain (i.e., the outcome variable; b = 0.18, p = .002) together with the two exogenous variables, the similarity between participants' and the surrogate's political affiliation no longer significantly predicts participants' parasocial intimacy toward McCain (b = 0.06, p = .52), but the similarity between participants' and the surrogate's social status still does (b = 0.29, p = .003), with participants' prior attitude toward McCain (b = 0.48, p < .001) and their perceived confirmation value of McCain's reply to the surrogate (b = 0.34, p < .001) acting as the covariates. The analyses further showed that, the *direct* effect of the similarity between participants' and the surrogate's political affiliation on participants' parasocial intimacy toward McCain was not significant, 95% bias corrected CL = [-.11, 0.22], while the *indirect* effect of their similarity in political affiliation on parasocial intimacy through participants' identification with the surrogate is significant, 95% bias corrected CL = [0.05, 0.26].

The mediation analysis for similarity of social status suggests that the *direct* effect of the similarity in participants' and the surrogate's social status on participants' parasocial intimacy toward McCain is significant, 95% bias corrected CL = [0.21, 0.68]. And, the *indirect* effect of participants' and the surrogate's similarity in social status on participants' parasocial intimacy toward McCain through participants' identification with the surrogate is also significant, 95% bias corrected CL = [0.01, 0.13]. Taken together, these results suggest that participants' identification with the surrogate *partially* mediates the effect of their similarity in social status on participants' parasocial intimacy toward John McCain. And, participants' identification with the surrogate *fully* mediates the effect of the similarity between participants' and the surrogate's political affiliation on participants' parasocial intimacy toward John McCain.

Analyses on reply message 2 from John McCain supported the same conclusions. Participants' similarity to the surrogate in political affiliation (b = 0.77, p < .001) and social status (b = 0.59, p < .001) significantly predict participants' identification with the surrogate (i.e., the mediator). When participants' identification with the surrogate (i.e., the mediator) simultaneously act as a predictor for participants' parasocial intimacy toward McCain (i.e., the outcome variable; b = 0.39, p < .001) together with the two exogenous variables, the similarity between participants' and the surrogate's political affiliation no longer significantly predicts participants' parasocial intimacy toward McCain (b = -0.14, p = .16), but the similarity between participants' and the surrogate's social status still does (b = 0.55, p < .001). In this model, participants' prior attitude toward McCain (b = 0.45, p < .001) and their perceived confirmation value of McCain's reply to the surrogate (b = 0.36, p < .001) acted as the covariates. The analyses further showed that, the *direct* effect of the similarity between participants' and the surrogate's political affiliation on participants' parasocial intimacy toward McCain was not significant, 95% bias corrected CL = [-.32, 0.05], while the *indirect* effect of their similarity in political affiliation on parasocial intimacy through participants' identification with the surrogate is significant, 95% bias corrected CL = [0.19, 0.43].

The mediation analysis for similarity of social status suggests that the *direct* effect of the similarity in participants' and the surrogate's social status on participants' parasocial intimacy toward McCain is significant, 95% bias corrected CL = [0.28, 0.82]. And, the *indirect* effect of participants' and the surrogate's similarity in social status on participants' parasocial intimacy toward McCain through participants' identification with the surrogate is also significant, 95% bias corrected CL = [0.12, 0.37]. Taken together, these results suggest that participants' identification with the surrogate *partially* mediates the effect of their similarity in social status on

participants' parasocial intimacy toward John McCain. And, participants' identification with the surrogate *fully* mediates the effect of the similarity between participants' and the surrogate's political affiliation on participants' parasocial intimacy toward John McCain. As such, the mediation model depicted in figure 1 received support from the analyses on both datasets featuring both reply message 1 and reply message 2 from John McCain.

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