Online and Offline Identity Gaps: Cross-Contextual Predictors and Psychological Outcome

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ONLINE AND OFFLINE IDENTITY GAPS:
CROSS-CONTEXTUAL PREDICTORS AND PSYCHOLOGICAL OUTCOME

by

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ABSTRACT

Using Communication Theory of Identity as a framework, this study compared an individual’s online and offline personal-enacted identity gap and examined the effect of each personal-enacted identity gap on individuals’ psychological well-being, as well as tested four cross-contextual predictors for online and offline personal-enacted identity gaps.

Survey data were collected from 214 participants on Amazon M-Turk. A sequence of hypotheses was tested. A questionnaire used for measuring individuals’ online personal-enacted identity gap was generated.

The result suggested individuals experience larger personal-enacted identity gap offline, which significantly negative predict individuals’ psychological well-being, whereas online personal-enacted identity gap positively predicts psychological well-being. Both online and offline personal-enacted identity gap mediate the effects of communication competence, social anxiety, online disinhibition, and social information control on individuals’ psychological well-being.

Keywords: Communication Theory of Identity; Identity Gaps; Psychological Well-being
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LIST OF ABBREVIATIONS

CMC  Computer-Mediated Communication

CTI  Communication Theory of Identity

FtF  Face to Face
CHAPTER I — INTRODUCTION

In the current era, the development of information and communication technology complexifies how to understand and manage identity. With the notion of identity enacted in the communication process in the Computer-Mediated Communication (CMC), people always leave traces of identity even when we leave the communication process. The Facebook profile pages, the enduring comments, and the chat history are actively present in our identity to others all the time. It is almost the second nature that if people want to get to know someone, they start looking at his or her social media profile first. However, when CMC unleashed people’s desire for communicating and connecting, does it also unleash the desire for genuine presenting identity? Do individuals’ online self-representations reflect their real self-view?

As Communication Theory of Identity (CTI) has explored the issue of the identity gap in an offline context, little work of identity gaps has been done in an online context. With more frequent use of CMC and the prevalence of digital connectivity, it is necessary to investigate the identity gap in the online context, as well as compare it with offline identity gaps. Identity gaps experienced in face to face (FtF) communication have been found to predict people’s mental health state. If this is the case with identity gaps arising in CMC, it may provide a comparative understanding of issues and difficulties in managing identities offline and online. Also, various factors can predict online and offline self-presentations and thus personal-enacted identity gaps. Identifying these factors may shed insights regarding how to effectively manage identities in online and offline contexts. However, these cross-contextual factors had been largely underexplored.
The primary goal of this study is to compare an individual’s online and offline personal-enacted identity gap and examine which personal-enacted identity gap has more significant effects on individuals’ psychological well-being. Furthermore, this study also tested a few possible cross-contextual predictors for online and offline personal-enacted identity gaps. That is, instead of separating possible predictors for online and offline personal-enacted identity gap, it is tested if likely predictors for online personal-enacted identity gap and typical predictors for offline identity gap can predict both online and offline personal-enacted identity gaps.
The Communication Theory of Identity

According to CTI (Hecht, Jackson, & Ribeau, 2002), identity and communication are intertwined with each other. In the view of CTI, identity has multiple layers (Jung & Hecht, 2004; Hecht, Warren, Jung, & Krieger, 2005). The “layered” identity can be understood in two ways, first, individuals possess more than one identity. Second, individuals experience their identity in more than one way. For the first one, individuals might identify themselves in multiple ways, for example, based on the perspective of their personality, relationship, and belongingness to the community (Hecht, 2005); For the second one, individuals can experience identity in behavioral, cognitive, and spiritual ways. By integrating individual, communicative, relational, and communal dimensions together, CTI identified four layers of identity: personal, enacted, relational, and communal.

**Personal layer of identity.**

Personal layer identity refers to how an individual sees him or herself (Hecht, Warren, Jung, & Krieger, 2005). Similar concepts can be found as self-image, self-cognition, and self-concept. This definition includes people’s self-view and how individuals define themselves (Hecht, 1993).

**Enacted layer of identity.**

This layer refers to identity expressed in communication or social behavior. The role theory contends identity is performed or enacted. People experience identity through communication (Hecht, Warren, Jung, & Krieger, 2005). This performed identity is closely related to Goffman’s (1959) dramaturgical model, which identified individuals’
front and back actions. The front stage self tends to be equivalent to the enacted layer of identity.

*Relational layer of identity.*

Identity is co-constructed and negotiated with others (Hecht, Warren, Jung, & Krieger, 2005). This layer has three dimensions: first, the identity is negotiated and constructed on account of how others view him or her. This dimension is also called ascribed relational identity (Jung & Hecht, 2004). Then, the self-concept or how individuals view themselves is affected by their social relationships with others or what social roles they play, such as parenthood and colleagues. Next, identities exist in the relationship with other identities (Jung & Hecht, 2004). Last, the relationship itself can be seen as an identity. Hecht (1993) explained this concept with dating couples, who shares the identity as a whole.

*Communal layer of identity.*

The fourth layer of identity is a communal layer, or group identity, which refers to how society defines identities of a group (Hecht, Warren, Jung, & Krieger, 2005). Group members share the collective memory, consisting of widely shared images and knowledge of past events that they themselves may not have personally experienced (Schuman, Akiyama & Knäuper, 1998). Communal identity is thus formed based on these shared characteristics and history. According to Hecht (1993), all the collective memories define a “repertoire of identities” that is shared and held by all group members.

Even though each identity frame has a respective definition and dimension, they are not isolated from each other but “interpenetrated”. The interpenetrated characteristic
is the gap between and among the four layers of identity (Hecht, Warren, Jung, & Krieger, 2005).

Identity Gap

The different identity layers are governed by different norms and expectations, so discrepancies among the layers can occur (Hecht, 1993; Hecht, 1993; Jung & Hecht, 2004). Jung and Hecht (2004) advanced the CTI by introducing the concept of identity gaps that refers to discrepancies between or among the four layers of identity. Due to the interpenetrated characteristic of these four identity layers, some or all of the layers are integrated or contradicted in different situations. Integration and discrepancy are important reflections of interpenetration which reveal the various aspects of the dynamic and fluid nature of identity (Jung & Hecht, 2004). The difference between pairs of identity layers are referred to as the identity gap (Jung & Hecht, 2004), and the possible number of identity gaps between the individual level of identity frames is six: the persona-enacted, the personal-relational, and the enacted-relational identity gap. These are the identity gaps that have been frequently studied in previous studies.

*Personal-enacted identity gap.*

The personal-enacted identity gap refers to the difference between an individual’s presented identity and his or her self-views (Jung & Hecht, 2004). For example, an individual may view him or herself as outgoing but seldom engaging in daily chat with others. That is, how an individual performs him/herself is different from his/her self-view.
Personal-relational identity gap.

The personal-relational identity gap is a discrepancy between an individual’s perception of how others view him or her and the individual’s self-view (Jung, 2013). For example, an individual may view him or herself as funny and humorous but perceives other people may see the person as boring.

Enacted-relational identity gap.

The enacted-relational identity gap is defined as the discrepancy between an individual’s performed self and the individual’s perception of how others view his/her performed self (Jung, 2013). For example, an individual donates an amount of money every year but still feels that other people think of them as stingy.

Jung and Hecht (2004) found that the personal-enacted identity gap is highly related to communication outcomes such as communication satisfaction, feeling understood, and conversational appropriateness and effectiveness. Furthermore, research also shows that both personal-relational and the personal-enacted identity gaps are associated with depressive symptoms (Jung & Hecht, 2008). By analyzing the relationship between identity gap, perceived discrimination, and acculturation with education satisfaction, Wadsworth, Hecht, and Jung (2008) found the perceived discrimination can affect both personal-enacted and personal-relational identity gaps. Their research revealed the personal-enacted gap had a strong relationship with educational satisfaction (Wadsworth, Hecht, & Jung, 2008).

The purpose of this study is to compare the identity gap in both online and offline contexts, as well as to examine the effect of the cross contextual factors on both online and offline identity gaps. For the CMC, self-presentation is an important component. The
online setting is a safe and free space for individuals to present themselves and regulate their self-presentation (Xie et al., 2018). Therefore, there should be differences between the online enacted identity and offline enacted identity. Besides, all the online self-presentation contents, such as online posts, comments or selfies, all can be seen as enacted identity in the online context. The visuality and substantialization of the online enacted identity facilitate individuals to notice and identify the discrepancy between online enacted identity with the personal identity easily. Thus, the personal-enacted identity gap is focused in this study.

**Online Personal-Enacted Identity Gap**

To draw a better communication outcome and build a concrete relationship, individuals ought to present themselves accurately and unreservedly. However, numerous elements can affect an individual’s self-presentation thereby causing the personal-enacted identity gap. First of all, language itself is deficient to convey the genuine intention or meaning of oneself. Then, individuals may vary to different abilities to express themselves when they communicate with others. For example, Jung (2011) found that an individual’s assertiveness is negatively related to personal-enacted identity gaps whereas communication apprehension is positively related to personal-enacted identity gaps in communication. It is also possible that an individuals’ expression would be suppressed in a given situation in order to be appropriate (Jung, 2011) or individuals selectively express themselves in order to maintain impressions (Goffman, 1959).

However, the online enacted identity or online self-presentation is different than the offline, and an individual’s online self-presentation can be illustrated by the hyper-personal theory and media richness theory.
According to the hyper-personal theory, CMC facilitates individuals’ communication in many ways. First, the asynchrony of CMC allows individuals time to elaborate and construct their messages in ways they can better present themselves (Walther, 2011). Walther (2007) suggested individuals are more likely to invest time and cognition to construct messages online than FtF which is conducive to positive self-presentation, as well as enhance intimacy. However, either these self-presentations promoted by CMC does not necessarily represent the "real self", so the authentic online self-presentation is still worth exploring.

From the psychological perspective, the self-concept has three levels: the real self, the ideal self, and the false self. The false self refers to the feeling and acting in ways that are not true to the self and may occur for different reasons such as deception (self-presentation may not be entirely true), exploration (try different aspects of yourself), and impressing others (in line with expectations; Harter et al., 1996). To sum, CMC with fewer cue system afford individuals more control over their positive self-presentation but inevitably leads to false self-presentation. However, whether positive self-presentation or false self-presentation, the discrepancy always exists between online enacted identity and personal identity.

From the perspective of media richness theory, media richness forms the basis for managers’ choice of media for communicative tasks (Walther, 2007). The richness of media can be defined from four dimensions: (1) the availability and abundance of multiple cues; (2) time lag for the feedback; (3) the use of natural language; and (4) the extent to personalize the message. From all the dimensions above, FtF is seen as the richest model because of multiple cues involved, the immediacy of feedback, prevalence
of natural language use, and message personalization. In a study investigating how interaction goal, message valence, and task complexity affect media choice, Sheer and Chen (2004) reported the self-presentation as the interaction goal will increase task complexity and possible conflicts among goals, thereby individuals will choose media in more richness. Thus, CMC as fewer richness media than FtF communication may suppress individuals’ self-presentation.

Both the hyperpersonal theory and media richness theory suggests a personal-enacted identity gap is inevitable in CMC. But the magnitude of the online personal-enacted identity gap has never been compared with offline. To compare the online and offline personal-enacted identity gap, the first research question is posed:

RQ1: Between FtF communication and CMC, in which type of communication do people experience larger personal-enacted identity gaps?

Personal-Enacted Identity Gap and Mental Health State in FtF Communication

Identity gaps have been found highly correlated to the negative communication outcomes and depression level in FtF. Research done by Jung and Hecht (2008) reported both the personal-enacted identity gap and the personal-relational identity gap are related to depression in Korean immigrants. Furthermore, this study suggests that communication input variables such as intercultural communication competence, middle person status, and perception of the racial hierarchy may not have direct effects on the level of depression, instead, the effects seem to be mediated through the identity gaps (Jung & Hecht, 2008).

Jung (2013) examined the relationship between identity gap occurring in interactions with acquaintances and depressive symptoms and found that all of the
personal-enacted, personal-relational, and enacted-relational identity gaps significantly predicted the depressive symptoms, and the enacted-relational predicted the highest level of depression among those identity gaps. Jung (2013) explained this result that the enacted identity is more public compared to the other two layers of identity and thus the identity gap involving more visible identity to others is more likely associated with the negative mental health outcome.

Personal-Enacted Identity Gap and Mental Health State in CMC

Since there has been little empirical research about the online identity gap, the effect of the online identity gap on depression level is less clear. However, the current researches have shown the correlation between online self-presentation and mental health outcome.

The research found that when individuals engaged in behavior of false self-presentation on Facebook, like untruthful status updates, profile creation, and liking posts dishonestly, individuals endured high levels of depression, anxiety, and stress (Wright, White, & Obst, 2018). On the contrary, a study examined the effect of online authentic self-expression on depression and found that, with increased social support, individuals' online authentic self-expression predicted a reduction in depression (Xie et al., 2018).

By the definition of the personal-enacted identity gap, false self-presentations produce larger personal-enacted identity gaps while true self-presentations lead to no or smaller personal-enacted gaps. It is argued that personal-enacted identity gaps experienced in the online context can also be associated with negative mental health outcomes. However, due to the different characteristics in online and offline, the
associations of online and offline personal-enacted identity gaps with mental health outcomes may vary.

Toma (2016) contends both online and offline self-presentation has its social function and identity construction function dimensions through which individuals can acquire social capital and negotiate, construct, and maintain their identity. But the form of online self-presentation can be different than offline: profile or posting is the common form of online self-presentation which is editable and endurable. Besides, the audience of online self-presentation is also different than offline: in FtF, individuals present themselves in front of one or several people, while the potential audience of individuals’ online self-presentation could be a tremendous amount of people (Toma, 2016). Compared to offline personal-enacted identity gaps, the online personal-enacted identity is more publicly observable and durable, which presumably has more possibility to affect an individual’s mental health.

However, research on mental health only elaborates on the negative end of psychological functioning and excludes positive health functioning (Birren & Renner, 2013). To obtain more general information as to how online and offline personal-enacted identity gaps are associated with an individual’s psychological state, this study utilizes the concept of psychological well-being (Diener et al., 2009) as an indicator of mental health state that can be predicted by personal-enacted identity gaps. Psychological well-being represents optimal human functioning which contains multiple dimensions, such as meaning and purpose, supportive and rewarding relationships, contributing to the well-being (Diener et al., 2009). Even though it doesn’t access each psychological variable, the psychological well-being reflects an individual’s overall life satisfaction, that can also
apply to specific domains, like work, income, neighborhood, and social relationship (Ryff & Keyes, 1995). As an indicator in this study, the psychological well-being reflects how online and offline personal-enacted identity gap affects an individual’s overall psychological state.

**H1:** Personal-enacted identity gaps experienced in CMC are more negatively associated with an individual’s psychological well-being than personal-enacted identity gaps arising in FtF communication are.

Cross-contextual Factors Predicting Personal-Enacted Identity Gaps

Various factors may predict both online and offline personal-enacted identity gap. In the offline context, communication apprehension, assertiveness, and communication competence have been reported as having a high correlation with the personal-enacted identity gap. Jung (2011) noted that people with high trait-like communication apprehension has less intention to communicate with others and poor at present themselves authentically. And the research result indicated that communication apprehension significantly predicted the personal-enacted identity gap (Jung, 2011). Also, people with a high level of assertiveness tend to present themselves more direct and clearer, which can decrease the personal-enacted identity gap (Jung, 2011).

In the online context, Chen and Marcus (2012) explored how personalities influence self-presentation on Facebook, and the result shows that individuals low on extraversion disclosed the least amount of information online, and individuals both low on extraversion and idiocentric disclosed the least honest information online. Both less and dishonest self-disclosure may lead to an individual’s larger personal-enacted identity gap. Mehdizadeh (2010) found that the self-promoting self-presentation strategy is often
used by people with a high narcissism level, which increased the personal-enacted identity gap.

In this study, four typical variables that could affect individuals’ self-presentation in either online or offline were selected to test their effects on the personal-enacted identity gap. Furthermore, instead of separating the online and offline context and testing the effect on either online or offline, this study explores if offline factors can also affect online personal-enacted identity gap, as well as if online factors predict offline personal-enacted identity gap. The factors that can predict both online and offline personal-enacted identity gaps are named as cross-contextual predictors in this study. The potential cross-contextual predictors examined in this study include interpersonal communication competence and social anxiety, which are frequently used in studies for offline communication activities, and online disinhibition and social information control, which are typical predictors for online communication. By examining the effects of these variables cross-contextually, it would be suggested if online and offline communication abilities are related in predicting communication behaviors in both contexts. Differences or similarities in the effects of communication competence and social anxiety on online and offline personal-enacted identity gaps would be revealed. It would be also informed if online disinhibition and social information control are meaningful predictors for both online and offline personal-enacted identity.

Interpersonal Communication Competence and Personal-Enacted Identity Gap

Interpersonal communication competence is based on people’s impression and judgment of an individual’s communication skills, and the effectiveness and appropriateness are the most basic criteria for it (Rubin & Martin, 1994). Effectiveness
means whether individuals’ goals can be accomplished through communication while appropriateness refers to whether one's communication behavior conforms to social rules or social expectations (Rubin, Graham, & Mignerey, 1990). When an individual’s communicative behavior lacks effectiveness and appropriateness, he or she may not be able to present himself or herself successfully. As the self-presentation is inhibited, the personal-enacted identity gap increases. Jung (2013) reported associations between communication competence and personal-enacted identity gaps in FtF communication. People who had a higher level of communication competence experienced smaller personal-enacted identity gaps in communication.

In the online context, individuals have more time to respond to their communication partner due to the asynchrony of CMC and thus have more chances to construct messages in preferred ways (Walther, 2011). Due to the decrease of controllable nonverbal language, the self-presentation is more malleable in online communication (Walther, 1996). Based on this, CMC is more controllable and advantageous for people with a low level of communication competence. Combining the above discussions, the hypothesis goes as:

\[ H2: \text{Communication competence more strongly predicts personal-enacted identity gaps in FtF communication than in CMC.} \]

Social Anxiety and Personal-Enacted Identity Gap

Social anxiety refers to the anxiety caused by personal evaluation in real or imagined social situations (Schlenker & Leary, 1982). Individuals tend to control their behavior in front of others, trying to make a good impression since impressions which meet the social expectation are more likely to be valued by others socially and materially
(Leary, Kowalski, & Campbell, 1988). Thus, social anxiety is caused by the conflict between positive impressions producing expectations and uncertain outcomes (Leary, 1983).

Social anxiety has been studied in different scholarships, and some researcher suggested social anxiety result from the lack or inadequacy of social skills (Bellack & Hersen, 1979), other researcher suggested the deficiency originates from individuals’ subjective perception, rather than actual inadequacy of social skills (Rehm & Marston, 1968). Although social anxiety is explained by different approaches, these all suggest that social anxiety is relatively stable over time and context, which can bring negative communication consequence.

Besides, when social anxiety studied in self-presentation area, the research found that individuals at high social anxiety level are more likely to be silent and depressed during social interaction (Leary & Kowalski, 1995). If a person is not fluent in communication or represses self-expression, the consistency between the expressed self and the true self will be weakened. In view of this, social anxiety is thought to be positively correlated with the identity gap developed by individuals in FtF.

However, individuals with high social anxiety are more likely to express themselves in a less anxious environment, such as in CMC (Leary & Kowalski, 1995). Due to the reduction of nonverbal cues CMC can modulate the potential negative interpersonal outcomes of social anxiety, as a result, high socially anxious individuals prefer to use online communication rather than FtF (Caplan, 2006). Drawing from the discussion above, the third hypothesis is presented as:
H3: Social anxiety more strongly predicts personal-enacted identity gaps in F2F communication than in CMC.

Online Disinhibition and Personal-Enacted Identity Gap

Many scholars have noticed that the way people behave online is very different from the way they do in real life. The online disinhibition theory can well explain the differences between online and offline behaviors.

If inhibition is understood as constrained behavior because of the social anxiety and fear of public evaluation (Zimbardo, 1977), then disinhibition refers to individuals’ behavior is released from such anxiety and pressure. Joinson (1998) introduced the terminology “disinhibition” in communication study to refer to unconstrained behavior with less attention on self-presentation and the feedback of others. The usual norm and constraints are largely reduced in online, so individuals have more freedom to communicate online and feel less pressured. Suler (2004) extended the online disinhibition theory by suggesting there are two directions of disinhibition, the benign and the toxic disinhibition. The benign disinhibition refers to open, kind and generous behavior, whereas the toxic disinhibition refers to rude, savage, and aggressive behavior.

There are six factors account for the online disinhibition, they are dissociative anonymity, invisibility, asynchrony, solipsistic introjection, dissociative imagination, and minimization of authority (Suler, 2004). Dissociative anonymity identified that the anonymity of CMC facilitates the deindividualization process, and the normal constraints on individual behavior are removed. Anonymity also allowed people to separate the online behavior from their in-personal and identity, thus people feel less vulnerable about self-disclosing and acting out (Suler, 2004). When people type a message, their nonverbal
signals like frown or sigh wouldn’t be detected by each other. People don’t have to mind the facial expression or worry about how others look or sound in response to what they say. On the whole, the invisibility gives people the courage to go where they wouldn’t have gone and do what they wouldn’t have done (Suler, 2004). As with asynchronous communication, the continuous feedback loop doesn’t exist anymore, allowing people to move toward a deeper expression of themselves. Furthermore, it is anticipated that when people are more “disinhibited” online, offline behavior and self-presentation are perceived as more “inhibited”. Therefore, the fourth hypothesis is as follows:

**H4:** Online disinhibition negatively predicts personal-enacted identity gaps in CMC whereas it predicts personal-enacted identity gaps positively in FtF communication.

Social Information Control and Personal-Enacted Identity Gap

Social information control reflects individuals’ general ability to regulate the communication pace, flow, and topic to facilitate self-presentation online (Sheer, 2011; Kuo, Tseng, Tseng, & Lin, 2013). It includes two dimensions: the expressive information control and privacy information control. The expressive information control refers to individuals being able to effectively modify, revise and elaborate messages in a preferred way; the privacy information control refers to the ability to hide information in certain circumstances in order to avoid awkwardness during the online communication (Kuo, Tseng, Tseng, & Lin, 2013). Since self-presentation is a process in which social actors make a conscious effort to project an ideal image in front of potential friends, a person who has a lot of control over information will maximize efficiency and promote self-presentation.
Research conducted by Sheer (2011) examined the relationship between social information control and friendship development online. By comparing two different social media platforms, the result shows people spend more time on the more controllable social platform to engage in friendship building. Similarly, research by Kuo, Tseng, Tseng, and Lin (2013) examined the relationship between social information control and self-presentation on Facebook. The result suggests that the expressive information control and privacy information control offered by Facebook have a significant effect on Facebook self-presentation activities (Kuo, Tseng, Tseng, & Lin, 2013). Both pieces of research indicate that effective use and control of media’s information can affect the effectiveness of self-presentation.

Actually, social information control is another specific reflection of the asynchrony trait in CMC. As opposed to instantaneity, CMC releases individuals from the pressure and stress in FtF (Walther, 1996) and offers individuals the flexibility to regulate and filter the information to project the desired self-image which less likely happens in FtF. Taken all together, the following hypothesis is drawn:

\[ H5: \text{Social information control more strongly predicts personal-enacted identity gaps in CMC than in FtF communication.} \]

Research Questions and Hypotheses

**RQ1:** Between FtF and CMC, in which type of communication do people experience larger personal-enacted identity gaps?

**H1:** Personal-enacted identity gaps experienced in CMC are more negatively associated with an individual’s psychological well-being than personal-enacted identity gaps arising in FtF communication.
H2: Communication competence more strongly predicts personal-enacted identity gaps in FtF communication than in CMC.

H3: Social anxiety more strongly predicts personal-enacted identity gaps in FtF communication than in CMC.

H4: Online disinhibition negatively predicts personal-enacted identity gaps in CMC whereas it predicts personal-enacted identity gaps positively in FtF communication.

H5: Social information control more strongly predicts personal-enacted identity gaps in CMC than in FtF communication.
CHAPTER III — METHOD

Study Platform Selection

This study aims to examine the effect of cross-contextual predictors on both online and offline contexts, as well as to see which gap has a more significant effect on an individual’s mental health state. Therefore, it is important to find a suitable online platform to share a social circle similar to the offline one for accurate comparison in this study.

As one of the most common social networking sites (SNS), Facebook provides users with a variety of ways to update personal information, interaction and stay in touch with friends (Subrahmanyam, Reich, Waechter, & Espinoza, 2008). And most importantly, research suggested Facebook is often used by individuals to keep in contact with friends from their offline lives (Lenhart & Madden, 2007). As a result, as a connecting point between online and offline social circles, Facebook is a useful platform in this study to compare individuals' online and offline communication.

Sample

Participants were recruited from Amazon’s M-Turk, which is an online crowdsourcing platform aims to help recruiters complete a variety of tasks (Buhrmester, Kwang, & Gosling, 2016). There are over 500,000 participants on the M-Turk platform coming from 190 countries (McDuffie, 2019) providing a diverse sample pool, which is suitable for this study. Additionally, there was no direct contact between the researchers and the participants, and all the participants completed the survey anonymously, so the participants' privacy could be well protected.
A total of 239 individuals responded to the questionnaire, however, 25 were excluded due to being incomplete. The remaining 214 participants were composed of 118 males (55.1%), 95 females (44.4%), and 1 not specified (0.5%); 134 European Americans (62.6%), 64 Asians (29.9%), 6 African Americans (2.8%), 5 Hispanics or Latinos (2.3%), 4 others (1.9%), and 1 Native Americans (0.5%). The mean age of the sample was 36.

Procedures

The survey was created using Qualtrics XM. The 91-item questionnaire included variables such as Facebook usage, communication competence, social anxiety, online disinhibition, social information control, offline personal-enacted identity, online personal-enacted identity, life event, as well as demographic variables. The questionnaire was distributed through Amazon M-Turk. Once participants opened the survey page, they were to acknowledge they were at least 18 years of age and were required to give consent prior to completing the questionnaire. Participants were able to withdraw from the questionnaire at any time without penalty. Once the survey was completed, participants received 50 cents as appreciation for their time.

Measures

*Online personal-enacted identity gap.*

To measure the online personal-enacted identity gap, a new scale was generated based on the offline Personal-Enacted Identity Gap Scale (Jung, 2011) and literature review. A total 7 items were generated to measure individuals’ personal-enacted identity gap experienced online. By describing typical and average message, comments, liking behaviors on Facebook, the items reflect the consistency or inconsistency between
personal and enacted identity online. Each item is answered on a 5-point Likert-type scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

In an exploratory factory analysis (EFA), one factor was retained based on the criterion of Eigenvalue one and greater (see Table 1). The factor explained 67.5% of variance of the latent variable. The seven items in the one-factor model showed high factor loadings (see table 2). Thus, the construct validity of the scale was supported.

Table 1

<table>
<thead>
<tr>
<th>Item</th>
<th>Total Variance Explained</th>
<th>Extraction Sums of Squared Loadings</th>
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<td>5</td>
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<td>6</td>
<td>.261 3.722</td>
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<tr>
<td>7</td>
<td>.245 3.505</td>
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</table>

*Extraction Method: Principal Component Analysis.

Table 2

<table>
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<tr>
<th>Item</th>
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<td>1.205</td>
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<tr>
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<tr>
<td>6</td>
<td>.811</td>
<td>1.79</td>
<td>1.134</td>
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<tr>
<td>7</td>
<td>.871</td>
<td>2.00</td>
<td>1.267</td>
</tr>
</tbody>
</table>

*N=214
The Cronbach’s Alpha coefficient of the 7-item scale was .854. The 7 item of the scale appears in Figure 1.

Figure 1

*Online Personal-Enacted Identity Gap Scale*

1. I post status updates in exaggerating ways on Facebook.
2. What I post about me on Facebook is more like who I desire to look like than who I really am.
3. I often mark “liking” on my Facebook friends’ status although I actually do not like it.
4. I try to impress my Facebook friends by posting glamorous photos about my life on profile page.
5. I feel there are differences between “real me” and how I present myself on Facebook.
6. I tend to pretend weak or helpless to get care or concern from others on Facebook.
7. I overstate my achievement on Facebook

*Offline personal-enacted identity gap.*

The original Personal-Enacted Identity Gap Scale was generated by Jung and Hecht (2004), and it intends to measure the discrepancy between expressed identity and the view of oneself. The whole scale contains 11 items and each item is rated on a 7-point agree-disagree scale, with the Cronbach’s alpha at .79 in their study. The modified and parsimonious version of the Personal-Enacted Identity Gap Scale contains 6 items (Jung, 2011), with each item rated on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Cronbach’s alpha of this six-item scale was .81 with the current sample. This variable is to describe the perceived discrepancy between individuals’ present self and how they view themselves when interacting with their acquaintances (Jung, 2011). The acquaintances are the people that they most frequently interact with, so the enacted identity would be more consistent and noticeable during the
interaction. The sample items are, “I feel I can be myself when communicating with the acquaintances or general friends,” and “I feel there are differences between ‘real me’ and the impressions I give the acquaintances or general friends.”

\textit{Psychological well-being.}

The original scale was developed by Ryff (1989), which contains 42 items for measuring six aspects of wellbeing and happiness: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. After modification and parsimony, Diener et al. (2009) composed a brief version of Psychological Well-Being (PWB) which consists of 8 items describing three aspects of human functioning, including positive relationships, feelings of competence, and having meaning and purpose in life. Each item is answered on a 1–7 scale that ranges from a strong disagreement to a strong agreement (Diener et al., 2009). The Cronbach’s alpha for the brief scale was .86 in their sample and .936 in this study. The sample items being used in this study are, “I lead a purposeful and meaningful life,” and “I actively contribute to the happiness and well-being of others.”

\textit{Interpersonal communication competence.}

Buhrmester and colleagues (1988) generated the Interpersonal Competence Questionnaire (ICQ), which contains five subscales, including initiation of relationships, negative assertion, disclosure of personal, emotional, and conflict management. The Cronbach’s alpha for the subscales ranged from $a = .77$ (conflict management) to .87 (emotional support) which shows good internal consistency. However, the total questionnaire contains 40 items which will pose a burden to the participants and negatively affect their willingness to participate. Hence, Coroiu et al. (2015) developed a
brief version that contained 15 items. Each item is answered on a 1-4 scale that ranges from 1 (I’m always poor at this) to 4 (I’m always good at this). The Cronbach’s alpha for the brief scale was .87 in their sample and .896 in this study. The sample items are, “confronting your close companion when he/she has broken a promise,” and “introducing yourself to someone you might like to get to know/date.”

Social anxiety.

La Greca and Lopez (1998) generated the Social Anxiety Scale (SAS), which has three subscales: fear of negative evaluation, social avoidance, and distress in new social situations, and general description of social avoidance and distress. After parsimony, the Social Anxiety Scale for Adolescents (SAS-A) as a shorter version includes 12 items, and each item is rated on a 5-point Likert-type scale, ranging from 1 (not at all) to 5 (all the time). The Cronbach’s alpha for the brief scale was .70 in their sample and .946 in this study. The sample items are, “I worry about what others think of me,” and “I am afraid that others will not like me.”

Online disinhibition scale.

The online disinhibition scale was generated by Udris (2014) which contains 11-item, and each item was rated on a 7-point scale in which the higher scores means give more consent. One of the items was discarded because of it related to cyberbullying which was not relevant to this study. The Cronbach’s alpha for the whole scale was .83 in the previous sample and .812 in this study. The sample items are, “the Internet is anonymous so it is easier for me to express my true feelings or thoughts,” and “it is easier to write things online that would be hard to say in real life because you don’t see the other’s face.”
Social information control.

The Social Information Control Scale (Kuo, Tseng, Tseng, & Lin, 2013) contains four constructs: expressive information control affordance, privacy information control affordance, image information control affordance, and Facebook self-presentation usage (Kuo, Tseng, Tseng, & Lin, 2013). The whole scale contains 20 items and all items used 7-point Likert scales ranging from 1 (strongly disagree) to 7 (strongly agree). This study aims to analyze the effect of cross-contextual predictors on both online and offline identity gaps, so the constructs of image information control affordance and Facebook self-presentation usage are abandoned since they only focused on the online context. The two selected constructs, expressive information control affordance and the privacy information control affordance contain 8 items in total, and the Cronbach’s alpha for each construct is .76 and .77. The Cronbach’s alpha for the whole scale was 0.76 in their sample and .906 in this study, and the sample items are, “I am able to communicate in ways that I feel are appropriate to the situation,” and “I have the ability to control the pace of an interaction if I need to do so.”

Life event.

The psychological well-being as the outcome variable not only can be affected by the identity gap but also can be affected by a wide variety of life events. McLanahan and her colleague found that psychological well-being is negatively related to various life events, including employment-related events, residential moves, and household composition changes (Mclanahan & Sorensen, 1984). To eliminate the effect of life events on psychological well-being in this study, the Life Event Scale will be used as the control variable. Six items are selected to measure an individual’s life event, including
natural disasters, serious accidents, illness or injury, employment, financial problem, and other unincluded stressful events. The sample items are, “natural disaster during last six months,” and “serious accident during last six months.”
CHAPTER IV —RESULTS

To answer the research question, as well as test the hypotheses, a series of analyses were conducted on SPSS. Since the causal relationship and time-ordering of the variables are not clear at this point, so the regression analysis was used in this study. The descriptive statistics of all the variables are listed below (see Table 3).

Table 3

*Descriptive Statistics*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological well-being</td>
<td>5.24</td>
<td>1.26</td>
</tr>
<tr>
<td>Offline Personal-enacted identity Gap</td>
<td>3.49</td>
<td>.46</td>
</tr>
<tr>
<td>Online Personal-enacted identity Gap</td>
<td>2.14</td>
<td>1.01</td>
</tr>
<tr>
<td>Interpersonal communication competence</td>
<td>3.27</td>
<td>.70</td>
</tr>
<tr>
<td>Social anxiety</td>
<td>2.91</td>
<td>1.05</td>
</tr>
<tr>
<td>Online disinhibition</td>
<td>4.13</td>
<td>1.06</td>
</tr>
<tr>
<td>Social information control</td>
<td>5.24</td>
<td>1.08</td>
</tr>
</tbody>
</table>

*N=214

RQ1: Between FtF and CMC, in which type of communication do people experience larger personal-enacted identity gaps?

In order to compare the size of individuals’ online and offline personal-enacted identity gap, a research question was raised between FtF and CMC, in which type of communication people experience larger personal-enacted identity gaps? A paired-samples T-test was conducted to compare the difference between the online and offline personal-enacted identity gap.

In the analysis, the mean of the online and offline personal-enacted identity gap was 2.14 and 2.49, and the paired differences indicated the difference was significant (p<.01). The result (see Table 4) shows that when comparing the two types of personal-enacted identity gap, people experience a larger personal-enacted identity gap offline.
Table 4

Paired Samples Test-Paired Differences

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>t</th>
<th>df</th>
<th>Sig (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online PEG-Offline PEG</td>
<td>-.35436</td>
<td>1.10089</td>
<td>-4.709</td>
<td>213</td>
<td>.000</td>
</tr>
</tbody>
</table>

Note: Online PEG=Online Personal-Enacted Identity Gap; Offline PEG=Offline Personal-Enacted Identity Gap.

H1: Personal-enacted identity gaps experienced in CMC are more negatively associated with an individual’s psychological well-being than personal-enacted identity gaps arising in FtF communication.

To investigate the effect of online and offline personal-enacted identity gaps on individuals’ psychological well-being (H1), a regression analysis was conducted. To draw a comprehensive result, life event as a control variable was included in the regression analysis. Both online and offline personal-enacted identity gaps significantly predicted individuals’ psychological well-being level ($\beta=.159, \rho<.05; \beta=-.650, \rho<.01$, respectively). However, the result indicated online personal-enacted identity gap positively predicted psychological well-being level, whereas offline personal-enacted identity gap negatively predicted psychological well-being level (see Figure 2). So, hypothesis one is not supported.

Figure 2

Regression Analysis of Psychological Outcome

*Note: Online PE Gap=Online personal-enacted identity gap; Offline PE Gap=Offline personal-enacted identity gap. *$\rho<.05$, **$\rho<.01$*

To examine the effects of cross-contextual predictors for both online and offline personal-enacted identity gaps, a set of regression analyses was conducted. Facebook
usage was included as a control variable. In the first sequence of analyses, both communication competence, social anxiety, online disinhibition level, and social information control significantly predicted the offline personal-enacted identity gap ($\beta=-.352, \rho<.01; \beta=.325, \rho<.01; \beta=.214, \rho<.01$; and $\beta=-.113, \rho<.05$, respectively). In the second sequence of analyses, communication competence, social anxiety, online disinhibition level, and social information control also significantly predicted the online personal-enacted identity gap ($\beta=.129, \rho<.05; \beta=.165, \rho<.05; \beta=.501, \rho<.01$; and $\beta=-.338, \rho<.01$, respectively). Moreover, the result also indicated that as a control variable, Facebook usage significantly predicted the online personal-enacted identity gap ($\beta=.161, \rho<.01$).

Figure 3

*Regression Analysis of Cross-Contextual Effects*

<table>
<thead>
<tr>
<th>Facebook Usage</th>
<th>Online P-E Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication Competence</td>
<td>.161**</td>
</tr>
<tr>
<td>Social Anxiety</td>
<td>.129*</td>
</tr>
<tr>
<td>Online Disinhibition</td>
<td>.501**</td>
</tr>
<tr>
<td>Social Information Control</td>
<td>-.352**</td>
</tr>
<tr>
<td>Offline P-E Gap</td>
<td>.325**</td>
</tr>
<tr>
<td>-.113*</td>
<td></td>
</tr>
</tbody>
</table>

Note: *$\rho<.05$, **$\rho<.01$*

_H2: Communication competence more strongly predicts personal-enacted identity gaps in FtF communication than in CMC._

Interpersonal communication competence significantly predicted both online and offline personal-enacted identity gaps ($\beta=.129, \rho<.05$; and $\beta=-.352, \rho<.01$), and it more
strongly predicted personal-enacted identity gaps in FtF communication than in CMC. Thus, hypothesis two was supported. However, interpersonal communication competence negatively predicted offline personal-enacted identity gap, whereas it positively predicted online personal-enacted identity gap.

$H3$: **Social anxiety more strongly predicts personal-enacted identity gaps in FtF communication than in CMC.**

Social anxiety had a significant positive effect on both online and offline personal-enacted identity gaps ($β=.165, ρ<.05$; and $β=.325, ρ<.01$), with social anxiety more strongly predicting personal-enacted identity gaps in FtF communication than in CMC. Therefore, hypothesis three was supported.

$H4$: **Online disinhibition negatively predicts personal-enacted identity gaps in CMC whereas it predicts personal-enacted identity gaps positively in FtF communication.**

The online disinhibition predicted both online and offline personal-enacted identity gaps significantly ($β=.501, ρ<.01$; and $β=.214, ρ<.01$), however, both online and offline personal-enacted identity gaps were positively predicted by the online disinhibition. Thus, hypothesis four was partially supported.

$H5$: **Social information control more strongly predicts personal-enacted identity gaps in CMC than in FtF communication.**

Social information control had a significant negative effect on both online and offline personal-enacted identity gaps ($β=-.338, ρ<.01$; and $β=-.113, ρ<.05$), and it more strongly predicted personal-enacted identity gaps in CMC than in FtF communication. Thus, Hypothesis five was supported.
CHAPTER V — DISCUSSION

This study compared individuals’ online and offline personal-enacted identity gap and examined the effects of selected cross-contextual factors on both online and offline personal-enacted identity gap. The results generally supported the hypotheses and also revealed the different effects of online and offline personal-enacted identity gap on individuals’ psychological well-being. These findings shed light on the issues and difficulties in managing identities offline and online, and provided some theoretical and practical identity management and health implications.

Online and Offline Identity Gap Comparison

The results suggest that individuals tend to experience a larger personal-enacted identity gap offline than online. For the online digital environment, due to the anonymity and multiplicity of social networking sites, individuals tend to view the online environment as a much safer and freer place for self-presentation (Joinson, Woodley, & Reips, 2007). Some research suggested young people are more likely to present real self rather than ideal self on Facebook (Back et al., 2010). Even though sometimes individuals’ online self-presentation may be different than their real selves, it can be seen as an active self-exploration process.

Researchers believe that different self-concepts mean that individuals are questioning and experimenting with different roles and identities, which are important for forming a coherent self-identity (Erikson, 1968). That is, instead of pretending to be someone else, individuals presented themselves differently online just for the purpose of temporarily exploring themselves with a more desirable self-image (Nabeth, 2005). In
this case, even though the discrepancy between enacted self and true self occurs, it may only exist temporarily and without notice by individuals.

Other researchers suggest that there are multiple identities for multiple digital social environments. For example, Haraway (1998) introduced the concept as “digitally-fragmented identity” to explain the partial characteristic of digital identity. This concept refers to how an individual’s online life sphere has been divided by different social networking sites, such as Facebook, Snapchat, and Tinder, with individuals presenting themselves differently according to the format of the social networking site. In this study, individuals’ online personal-enacted identity measurement was based only on individuals’ behavior on Facebook, so it is possible that the measurement only partially reflected individuals’ whole online personal-enacted identity. In that case, more research is needed to focus on other social networking sites in order to gain a comprehensive overview of individuals’ online personal-enacted identity.

Identity Gaps and Psychological Well-being

Research has suggested that an individual’s personal-enacted identity gap can predict depressive symptoms (Jung, 2013). Particularly, Jung (2013) indicated that depression symptoms were not only drawn by the unfavorable feedback of self-view, but also by the inconsistency between individuals’ self-view and performed self. The effect of the identity gap on the negative end of psychological functioning tends to be obvious, however, its effect on individuals’ positive functioning is largely unexplored. The Psychological Well-Being (PWB) scale used in this study represents optimal human functioning which reflects an individual’s overall psychological state. Research results
indicate that individuals that experience larger personal-enacted identity gap offline would have lower psychological well-being levels.

Another interesting finding is individuals with higher online personal-enacted identity gaps tend to show better psychological well-being, which is opposite of the hypothesis. However, the finding that the online personal-enacted identity gap predicted positive psychological well-being may be explained by the self-enhancement theory. As the presupposition of CTI, self-consistency theory contends individuals have inner motivation to maintain consistency of their self-concepts (Swann, Griffin, Predmore, & Gaines, B, 1987), so any discrepancy between or among identity layers would violate the inner self-consistency and lead to negative psychological outcomes. In contrast, self-enhancement theory rejects the contention of self-consistency theory by suggesting individuals are motivated to present themselves in a way that maximizes the benefits (Sedikides, Hoorens, & Dufner, 2015). Even though self-consistency theory and self-enhancement theory offers two seemingly competing claims, the research done by Swann and his colleagues (1987) suggests self-consistency theory is related to the cognitive social feedback, whereas self-enhancement theory is related to the affective social feedback. Other research has suggested that people are more willing to associate with a person who is self-enhanced rather than self-deprecated or neutral (Carver, Kus, & Scheier, 1994). In the longstanding view of mental health research, a lot of research has indicated self-enhancement is a crucial functioning part that promotes individuals’ psychological well-being (Taylor & Brown, 1988; O’Mara, Gaertner, Sedikides, Zhou, & Liu, 2012). In general, when individuals present themselves as positive and idealized, the online personal-enacted identity gap increased. In the meantime, favorable social
feedback would also increase to facilitate individuals’ psychological well-being. However, this result didn’t suggest self-enhancement always lead to positive outcomes, some research has shown that individuals with self-enhancement self-presentation strategy may be perceived by others as arrogant or narcissistic, and it would bring negative outcomes in the long term (Leary, Bednarski, Hammon, & Duncan, 1997).

The Effect of Cross-Contextual Factors

Interpersonal communication competence has a significant negative effect on individuals’ offline personal-enacted identity gap, which is consistent with previous research. The results of this study indicated an individual with high communication competence may be able to present himself or herself successfully, as a result, the discrepancy between presented self and real-self diminished so that the personal-enacted identity gap decreased. An interesting finding is that interpersonal communication competence has a notably positive effect on individuals’ online personal-enacted identity gap, which is opposed to the hypothesis. The result can be explained by the self-presentation theory (Leary & Kowalski, 1990). Self-presentation is a common phenomenon online and often motivated by impression management (Xie et al., 2018). In the relative anonymous and nonverbal features absent online environment, individuals attempt to hide their less desirable tendencies and change their self-presentation into a more desirable one. Jones and Pittman (1982) put forward self-presentation strategies to embody individuals’ self-presentation process, which are self-promotion, ingratiatiation, exemplification, supplication, and intimidation. It is possible that individuals with a high level of communication competence may also be good at presenting themselves with self-
promotion strategy online, and the online personal-enacted identity gap increases as the mismatch between the ideal self with the real self.

As predicted, social anxiety was found to positively predict personal-enacted identity. Moreover, social anxiety was found to more strongly predict offline personal-enacted identity gaps than online. The result was similar to some previous research. For example, Shalom and his colleagues (2015) suggested that CMC relieves individuals’ social anxiety level and as a facilitator of successful communication and this facilitating effect was more obvious in individuals high in social anxiety. This research result has indicated that CMC provided individuals with a less threatening and more controllable communication environment and might mediate the effects of social anxiety on online self-presentation.

Contrary to predictions, online disinhibition positively predicted both online and offline personal-enacted identity gap, especially more significantly predicted online personal-enacted identity gap than offline. It is possible that due to the anonymity and invisibility of CMC, individuals disinhibited themselves excessively becoming toxic disinhibition (Lapidot-Lefler & Barak, 2012). The toxic disinhibition refers to individuals’ noxious behavior which would do harm to others even their own self-image (Suler, 2004), and the toxic disinhibition often led to flaming behavior (Lapidot-Lefler & Barak, 2012), such as violent messages, cyberbullying, and swearing. For example, Moor, Heuvelman, and Verleur (2010) conducted a research on YouTube comments and found that some flaming comments were meant to express disagreement or personal opinion. As it indicated, under the influence of online disinhibition, individuals express themselves in an exaggerating way which is largely different from their original
intention. As the discrepancy between online presented self and real-self exacerbated, the online personal-enacted identity gap increased.

Finally, as hypothesized, the social information control more strongly predicts personal-enacted identity gaps in CMC than in FtF communication. The result was consistent with the hyperpersonal theory that CMC provides individuals with several technical affordances that facilitate positive self-presentation.

Significance, Limitations and Future Studies

This study applied the communication theory of identity to the online environment and generated a new scale for measuring online personal-enacted identity gap, this study also compared the personal-enacted identity gap in online and offline settings, as well as their effect on individuals’ psychological well-being. Furthermore, four possible cross-contextual predictors of online and offline personal-enacted identity gap were found. In general, a number of implications are shown from the empirical result, as well as some limitations and future research suggestions.

First, this study extended the previous research by suggesting offline personal-enacted identity gap can affect individuals’ overall psychological well-being. Second, the online personal-enacted identity gap is not leading to negative psychological outcomes, it would promote psychological well-being probably in the short term. Third, CMC is able to mitigate social anxiety and promote self-presentation to some extent, but in the meantime, it would also overexaggerate individuals’ self-presentation and lead to a personal-enacted identity gap.

This study may also be limited in questionnaire design, the long-term psychological outcome exploration and overall online platform assessment.
First, all participants were recruited from Amazon M-Turk since it can provide much more demographically diverse users, however, at the same time, it is hard to check each participants’ response status and the quality of their answer. To fix this problem, some manipulative questions should be added in the questionnaire.

Second, the effect of online and offline personal-enacted identity gap on psychological well-being indicates the value of personal-enacted identity gap could be positive or negative, it is possible that when an individuals’ presented self is inferior to his or her real self, the psychological well-being tends to decrease; when an individual’s presented self is more glamorous than his or her real self, the psychological well-being seems increased in the short term. The long-term effect on psychological well-being wasn’t covered in this study, which will be explored in a future study with a longitudinal data and time series design.

Then, the online personal-enacted identity was measured based on individuals’ behavior on Facebook, with other frequently used social platforms excluded from this study. For future study, other different types of social platforms should be covered to draw a comprehensive overview of individuals’ online personal-enacted identity.

Moreover, based on the results, both online and offline personal-enacted identity gap can mediate the effects of communication competence, social anxiety, online disinhibition, and social information control on individuals’ psychological well-being. Thus, it is plausible to form a model that reflects the relationships among the variables used in this study (see Figure 4). However, testing the possible model was beyond the scope of the current study. The model involving the potential causal relationships will be better tested with a time differential design in a future study.
In conclusion, this study expands the application of communication theory of identity to the online setting and generates a new scale for measuring online personal-enacted identity gap. Overall, this study identified each effect of online and offline personal-enacted identity gap on psychological well-being level, as well as four cross-contextual predictors for both online and offline personal-enacted identity gap. Especially, both online and offline personal-enacted identity gap plays an important role in mediating the effects of communication competence, social anxiety, online disinhibition, and social information control on individuals’ psychological well-being level. Thus, the mediation effect of identity gaps may be a promising and indispensable part in the communication process.
APPENDIX A - Questionnaire

Facebook Usage

1. How active are you on Facebook?
   Not at all 1:  2:  3:  4:  5 Very Active

2. On average, how many friends you have on Facebook?
   (1) Less than 100  (2) 100-200  (3) 200-300  (4) 300-400  (5) Over 500

3. On average, how much time do you spend on Facebook every day?
   (1) Less than 30 mins (2) 30-60 mins (3) 60-90 mins (4) 90-120 mins (5) over 120 mins

Interpersonal Communication Competence.

Think about typical interactions with your acquaintances or general friends in your daily life and answer the following questions

1. Finding and suggesting things to do with new people whom you find interesting and attractive.
   I’m always poor at this 1:  2:  3:  4 I’m always good at this

2. Introducing yourself to someone you might like to get to know/date.
   I’m always poor at this 1:  2:  3:  4 I’m always good at this

3. Calling (on the phone) a new date/acquaintance to set up a time to get together and do something.
   I’m always poor at this 1:  2:  3:  4 I’m always good at this

4. Confronting your close companion when he/she has broken a promise.
   I’m always poor at this 1:  2:  3:  4 I’m always good at this

5. Telling a companion that he/she has done something to hurt your feelings.
   I’m always poor at this 1:  2:  3:  4 I’m always good at this
6. Telling a date/acquaintance that he/she has done something that made you angry.

   I’m always poor at this 1:  2:  3:  4 I’m always good at this

7. Helping a close companion get to the heart of the problem he/she is experiencing.

   I’m always poor at this 1:  2:  3:  4 I’m always good at this

8. Being able to say and do things to support a close companion when she/he is feeling down.

   I’m always poor at this 1:  2:  3:  4 I’m always good at this

9. When a close companion needs help and support, being able to give advice in ways that are well received.

   I’m always poor at this 1:  2:  3:  4 I’m always good at this

10. Confiding in a new friend/date and letting him/her see your softer, more sensitive side.

   I’m always poor at this 1:  2:  3:  4 I’m always good at this

11. Letting a new companion get to know the “real” you.

   I’m always poor at this 1:  2:  3:  4 I’m always good at this

12. Letting down your productive “outer shell” and trusting a close companion.

   I’m always poor at this 1:  2:  3:  4 I’m always good at this

13. Being able to admit that you might be wrong when a disagreement with a close companion begins to build into a serious fight.

   I’m always poor at this 1:  2:  3:  4 I’m always good at this

14. Being able to take a companion’s perspective in a fight and really understand his or her point of view.

   I’m always poor at this 1:  2:  3:  4 I’m always good at this
15. Not exploding at a close companion (even when it’s justified) in order to avoid a damaging conflict.

I’m always poor at this 1: 2: 3: 4 I’m always good at this

**Social Anxiety**

Think about yourself when you interact with your acquaintances or general friends in your daily life and answer the following questions.

1. I worry about what others think of me.
   
   Not at all 1: 2: 3: 4: 5 All the time

2. I’m afraid that others will not like me.
   
   Not at all 1: 2: 3: 4: 5 All the time

3. I worry what others say about me.
   
   Not at all 1: 2: 3: 4: 5 All the time

4. I worry that others don’t like me.
   
   Not at all 1: 2: 3: 4: 5 All the time

5. I feel shy around people I don’t know.

   Not at all 1: 2: 3: 4: 5 All the time

6. I get nervous when I talk to peers I don’t know very well.

   Not at all 1: 2: 3: 4: 5 All the time

7. I get nervous when I meet new people.

   Not at all 1: 2: 3: 4: 5 All the time

8. I feel nervous when I’m around certain people.

   Not at all 1: 2: 3: 4: 5 All the time

9. I’m quiet when I’m with a group of people.
Not at all 1: 2: 3: 4: 5 All the time

10. I’m afraid to invite others to do things with me because they might say no.

Not at all 1: 2: 3: 4: 5 All the time

11. I feel shy even with peers I know very well.

Not at all 1: 2: 3: 4: 5 All the time

12. It’s hard for me to ask others to do things with me.

Not at all 1: 2: 3: 4: 5 All the time

**Online disinhibition**

Think about your typical communication with your acquaintances or general friends online and answer the following questions

1. It is easier to connect with others through ICTs (information and communication technologies) than talking in person.

   Strongly Disagree 1: 2: 3: 4: 5: 6: 7: Strongly Agree

2. The Internet is anonymous so it is easier for me to express my true feelings or thoughts.

   Strongly Disagree 1: 2: 3: 4: 5: 6: 7: Strongly Agree

3. It is easier to write things online that would be hard to say in real life because you don’t see the other’s face.

   Strongly Disagree 1: 2: 3: 4: 5: 6: 7: Strongly Agree

4. It is easier to communicate online because you can reply anytime you like.

   Strongly Disagree 1: 2: 3: 4: 5: 6: 7: Strongly Agree

5. I have an image of the other person in my head when I read their e-mail or messages online.
6. I feel like a different person online.

    Strongly Disagree 1:  2:  3:  4:  5:  6:  7: Strongly Agree

7. I feel that online I can communicate on the same level with others who are older or have higher status.

    Strongly Disagree 1:  2:  3:  4:  5:  6:  7: Strongly Agree

8. I don’t mind writing insulting things about others online, because it’s anonymous.

    Strongly Disagree 1:  2:  3:  4:  5:  6:  7: Strongly Agree

9. It is easy to write insulting things online because there are no repercussions.

    Strongly Disagree 1:  2:  3:  4:  5:  6:  7: Strongly Agree

10. There are no rules online therefore you can do whatever you want.

    Strongly Disagree 1:  2:  3:  4:  5:  6:  7: Strongly Agree

**Social Information Control**

Facebook offers individuals a lot of features such as updating personal status, posting a message, leaving a comment, or clicking the “Like” button.

Think about your typical communication with your acquaintances or general friends on Facebook and answer the following questions

1. With the assistance of these features, I am able to communicate in ways that I feel are appropriate to the situation.

    Strongly Disagree 1:  2:  3:  4:  5:  6:  7: Strongly Agree

2. With the assistance of these features, I have the ability to control the pace of an interaction if I need to do so.

    Strongly Disagree 1:  2:  3:  4:  5:  6:  7: Strongly Agree
3. With the assistance of these features, I feel that I am able to plan the way interactions will proceed.

   Strongly Disagree 1:      2:      3:      4:      5:      6:      7: Strongly Agree

4. With the assistance of these features, I have the ability to regulate the flow of communication between my communication partner and myself.

   Strongly Disagree 1:      2:      3:      4:      5:      6:      7: Strongly Agree

5. With the assistance of these features, I can avoid topics that I don’t want to discuss.

   Strongly Disagree 1:      2:      3:      4:      5:      6:      7: Strongly Agree

6. With the assistance of these features, I can easily end an interaction if I need to do so.

   Strongly Disagree 1:      2:      3:      4:      5:      6:      7: Strongly Agree

7. With the assistance of these features, I can generally hide emotions from my communication partners when I need to do so.

   Strongly Disagree 1:      2:      3:      4:      5:      6:      7: Strongly Agree

8. With the assistance of these features, I can ignore things about an interaction if I need to do so.

   Strongly Disagree 1:      2:      3:      4:      5:      6:      7: Strongly Agree

**Offline Personal-Enacted Identity Gap**

Think about your typical and average communication with the acquaintances or general friends (not very close friends), and then, indicate the degree to which each statement reflects your communication with the acquaintances or general friends.

1. I usually communicate with the acquaintances in the way that is consistent with who I really am.

   Strongly Disagree 1:      2:      3:      4:      5:      7: Strongly Agree
2. I feel I can be myself when communicating with the acquaintances.

   Strongly Disagree 1:   2:   3:   4:   5 Strongly Agree

3. I often hide some aspects of myself in communication with the acquaintances.

   Strongly Disagree 1:   2:   3:   4:   5 Strongly Agree

4. I feel there are differences between “real me” and the impressions I give the acquaintances.

   Strongly Disagree 1:   2:   3:   4:   5 Strongly Agree

5. I speak truthfully to the acquaintances about myself.

   Strongly Disagree 1:   2:   3:   4:   5 Strongly Agree

6. I freely express “real me” in communication with the acquaintances.

   Strongly Disagree 1:   2:   3:   4:   5 Strongly Agree

**Online Personal-enacted Identity Gap**

Think about typical and average messages, comments, or liking behaviors you post on Facebook for your general Facebook friends (not very close friends), and then indicate the degree to which each statement reflects your Facebook communication.

1. I post status updates in exaggerating ways on Facebook.

   Strongly Disagree 1:   2:   3:   4:   5 Strongly Agree

2. What I post about me on Facebook is more like who I desire to look like than who I really am.

   Strongly Disagree 1:   2:   3:   4:   5 Strongly Agree

3. I often mark “liking” on my Facebook friends’ status although I actually do not like it.

   Strongly Disagree 1:   2:   3:   4:   5 Strongly Agree
4. I try to impress my Facebook friends by posting glamorous photos about my life on profile page.

   Strongly Disagree 1:   2:   3:   4:   5 Strongly Agree

5. I feel there are differences between “real me” and how I present myself on Facebook.

   Strongly Disagree 1:   2:   3:   4:   5 Strongly Agree

6. I tend to pretend weak or helpless to get care or concern from others on Facebook.

   Strongly Disagree 1:   2:   3:   4:   5 Strongly Agree

7. I overstate my achievement on Facebook.

   Strongly Disagree 1:   2:   3:   4:   5 Strongly Agree

Below are 8 statements with which you may agree or disagree. **Recall the last few weeks and use the 1–7 scale below, indicate your agreement with each item by indicating that response for each statement.**

1. I lead a purposeful and meaningful life.

   Strongly Disagree 1:   2:   3:   4:   5:   6:   7 Strongly Agree

2. My social relationships are supportive and rewarding.

   Strongly Disagree 1:   2:   3:   4:   5:   6:   7 Strongly Agree

3. I am engaged and interested in my daily activities.

   Strongly Disagree 1:   2:   3:   4:   5:   6:   7 Strongly Agree

4. I actively contribute to the happiness and well-being of others.

   Strongly Disagree 1:   2:   3:   4:   5:   6:   7 Strongly Agree

5. I am competent and capable in the activities that are important to me

   Strongly Disagree 1:   2:   3:   4:   5:   6:   7 Strongly Agree
6. I am a good person and live a good life.

   Strongly Disagree 1:   2:   3:   4:   5:   6:   7  Strongly Agree

7. I am optimistic about my future.

   Strongly Disagree 1:   2:   3:   4:   5:   6:   7  Strongly Agree

8. People respect me

   Strongly Disagree 1:   2:   3:   4:   5:   6:   7  Strongly Agree

Listed below are a number of difficult or stressful incidents that sometimes happen to us. For each incident, please indicate if a) it happened to you personally, b) it happened to your family members or close friends, or c) it did not happened at all.

1. Natural disaster during last six months (for example, flood, tornado, hurricane, earthquake, fire, etc.)
   1) Happened to me          2) Happened to my family member or close friend
   3) Did not happen

2. Serious accident during last six months (car accident or other accident at home, work, or during recreational activity, etc.).
   1) Happened to me          2) Happened to my family member or close friend
   3) Did not happen

3. Serious illness or injury during last six months.
   1) Happened to me          2) Happened to my family member or close friend
   3) Did not happen

4. Loss of job during last six months
   1) Happened to me          2) Happened to my family member or close friend
   3) Did not happen
5. Serious financial loss during last six months

1) Happened to me        2) Happened to my family member or close friend
3) Did not happen

6. Not listed above but very stressful other incidents during last six months

1) Happened to me        2) Happened to my family member or close friend
3) Did not happen

Demographic Characteristics

1. Your age is

(1) 18-22 (2) 23-26 (3) 27-30 (4) 31-35 (5) 36-40 (6) 41-45 (7) 46-50 (8) 51-55 (9) 56+

2. You gender is

(1) male (2) female (3) other

3. Please specify your ethnicity.

(1) White (2) Black or African American (3) Hispanic or Latino (4) Asian (5) Native Hawaiian or Pacific Islander (6) Native American or American Indian (7) Other

4. What is the highest degree or level of school you have completed? If currently enrolled, highest degree received.

(1) No school completed (2) Nursery school to 8th grade (3) Some high school, no diploma (4) High school graduate, diploma or the equivalent (for example: GED) (5) Some college credit, no degree (6) Trade/technical/vocational training (7) Associate degree (8) Bachelor’s degree (9) Master’s degree (10) Professional degree (11) Doctorate degree
REFERENCES


