pISSN 1226-8593 eISSN 2383-613X Sci. Emot. Sensib., Vol.24, No.4, pp.91-106, 2021 https://doi.org/10.14695/KJSOS.2021.24.4.91

Personality-Culture Interaction as a Predictor of Emotion Suppression on Facebook

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Abstract

Although personality and culture have been employed as independent predictors of emotion regulation, less is known about the interplay between them. Thus, the present study tests their interaction by focusing on the match between personality (public self-consciousness) and culture (valuing independence vs. interdependence) in modulating an emotion regulation strategy, namely, emotion suppression, on Facebook. Furthermore, relationship concern related to the expression of positive and negative emotions on Facebook is explored as a potential underlying mechanism. An online survey on Facebook users in the United States (n = 320) and South Korea (n = 336) was conducted through two professional survey companies. The results revealed that the positive association between public self-consciousness and emotion suppression was stronger among respondents who value interdependence (vs. independence), which led to a significant interaction between the two predictors. Furthermore, public self-consciousness was associated with emotion suppression through relationship concern for the expression of positive, but not negative, emotions. Furthermore, this mediated relationship was stronger among respondents who value interdependence (vs. independence). Lastly, the study discussed the importance of exploring the interplay between personality and culture and the implication of dialectic emotions.

Key words: Facebook Use, Emotion Suppression, Independence vs. Interdependence, Relationship Concern, Self-Disclosure, Self-Censorship

1. INTRODUCTION

Facebook has emerged as a highly popular tool for informational and social sharing alike in the last couple of decades. Manifest in users' status updates, social sharing, in particular, entails communicating about significant emotional experiences, such as those related to personal or professional life changes and events. Based on evidence that users routinely share both positive and negative emotions on social media, it appears that a main motivation for social sharing of

emotions on Facebook is emotion regulation (Aclao et al., 2013; Bazarova et al., 2015; Cha et al., 2012).

Defined as a set of strategies that people use to increase, maintain, or decrease their emotional responses, emotion regulation employs two main strategies—social sharing or emotion expression on one hand, and emotion suppression on the other hand (Gross, 1998). While research has examined social sharing on Facebook, as noted above, there is a dearth of studies aimed at understanding the frequency, nature, and effects of expressive emotion suppression on social media. It is

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important to note that emotion suppression is not merely a lack of emotion expression, but an effort to reduce the expressive behaviors associated with the arousal stemming from emotional experiences (Gross & Levenson, 1993). As such, expressive emotion suppression is conceivably an active strategy, just like emotion expression, that Facebook users employ to manage their emotional experiences while interacting with other users. Some available evidence indicates that social media are likely to be used for sharing positive or low-intensity negative emotions, whereas sharing negative or low-intensity positive events is reserved for face-to-face or in person, by phone (Choi et al., 2019). Thus, emotion suppression does indeed occur on social media.

Among the various potential factors that may be associated with emotion suppression, scholars have recognized culture, often operationalized as distinct national groups, as an important predictor (Mesquita et al., 2014 for an overview). Relevant research findings suggest that emotion suppression is common among East Asians and that the potential detrimental health consequences of suppressing emotions (e.g., depression, poor life satisfaction) are limited to European Americans (e.g., Butler et al., 2007; Tsai & Lu, 2018). Only a handful of studies have explored personality (e.g., the big five personality traits) as a predictor of emotion suppression along with cultural influence (Matsumoto, 2006). Although previous research does explore personality and culture separately as independent predictors of emotion suppression, the current research examines the interplay between the two. From an interactional psychology perspective (e.g., Endler & Magnusson, 1976), considering both factors in tandem may explain the additional variance of emotion regulation and, as a result, broaden our understanding of the role of unique social interaction involving social media (Facebook). The current research also attempts to identify and measure previously unexplored underlying mechanisms of emotion suppression. By employing Facebook as a testing ground cross-culturally with South Korean and U.S. American samples, the current research is expected to elucidate the processes underlying emotion suppression as a joint function of both personality and culture.

2. THEORETICAL BACKGROUND

2.1. Emotion suppression on Facebook

Emotion regulation is defined as "the processes by which individuals influence which emotions they have, when they have them, and how they experience and express their emotions" (Gross, 1998, p. 711). As emotional experiences unfold, individuals adopt different regulation strategies. For example, individuals may choose specific media (TV, youtube) or messages (comedies, dramas) as a means of emotion regulation (Zillmann, 2000). Scholars have also explored Facebook use itself as a means of emotion regulation by exploring emotional motivations, such as relaxation, entertainment, or escapism (e.g., Smock et al., 2011). When considering the temporal processes suggested by Gross (1998), these lines of research seem to treat the selection or modification of one's external environment as an antecedent emotion regulation strategy.

In contrast, the current research explores individuals' social emotion regulation while interacting with others. Although studies explored this line of research using lab experiments in the past (e.g., Butler et al., 2003), we expand these studies by addressing a unique interaction context. Specifically, we explore the emotion regulation strategies employed during Facebook use, often entailing personal-mass interactions with real or imagined others (Litt, 2012). We focus in particular on the non-expression of experienced positive or negative emotions, or emotion suppression. Expressive emotion suppression is a response-based emotion regulation strategy where certain emotions are being experienced, but individuals attempt to shift (e.g., from anger to smiling) or hide them as much as possible (Gross, 1998). Thus, the current study explores individuals' inhibition of outward displays of emotion in the context of computer-mediated social relationships, such as those that occur on Facebook.

Unlike dyadic relationships, Facebook's unique technological affordances make it possible for users to engage in interactions with unfamiliar others, in ways that can also make relationship disclosures visible to others (e.g., Facebook groups, public Facebook walls). Furthermore, given the medium's reliance on written and editable messages, conducive to conscious self-presentation and reflection (Valkenburg, 2017), Facebook users are more likely to activate strategic goals of emotion suppression, such as impression management in a public setting (Rosenberg & Egbert, 2011). For example, users may restrain from expressing negative, or even positive, emotions. Documented consequences of emotion suppression seem to include negative social and health implications, such as the feelings of inauthenticity (English & John, 2013), poor coping outcomes with stressful life events (Kashdan et al., 2006), or low affiliation with partners (Butler et al., 2003). However, cross-cultural researchers have been arguing that these findings may not be replicable in East Asian cultures, where moderation, self-restraint, fitting into social contexts, and maintaining harmony with in-group members are valued (Mesquita et al., 2014). In the present study, we explore whether culture, along with personality traits, serve to predict emotion suppression on Facebook.

2.2. Personality: Public self-consciousness

To start with, personality traits are defined as "individuals' characteristic patterns of thought, emotion, and behavior (Funder, 2001, p. 198)." Prior research finds that personality traits predict emotional suppression. For example, in a cross-cultural study with American and Japanese samples, individuals scoring high on extraversion, as well as those scoring high on conscientiousness, tended to show lower levels of emotional suppression (Matsumoto, 2006). In other studies, individuals showing moderate to high levels of self-monitoring experienced a significant, positive association between emotion suppression and loneliness (Smith et al., 2019), whereas individuals displaying high levels of trait negative affect appeared to experience little anxiety when instructed to engage in emotion suppression (Boland et al., 2019). The present study focuses in particular on individuals' level of self-consciousness, which refers to the tendency to direct attention to self-related feelings, thoughts, and behaviors closely and consistently, either inward or outward (Fenigstein et al., 1975). There are two types of self-consciousness: private vs. public self-consciousness. The present study focuses on public self-consciousness (PSC), which reflects one's tendency to focus on oneself from the perceived vantage point of real or imagined others (Fenigstein et al., 1975) and to attend to aspects of the self that are observable by others (i.e., public display, Scheier & Carver, 1985) such as facets of one's appearance and behavior. PSC is associated with sociability (Check & Buss, 1981) and the ability to predict one's impression on others (Tobey & Tunnell, 1981); however, PSC is also associated with great sensitivity to social rejection (Fenigstein, 1979), social anxiety (Mor & Winquist, 2002), embarrassment (Edelmann, 1985), and low self-esteem (Tunnell, 1984).

We believe that PSC has theoretical relevance to the context of social interaction via Facebook, particularly for strategic self-presentation, maintenance of social connection, and impression formation (Doherty & Schlenker, 1991; Lee-Won et al., 2014; Yang et al., 2012). From anticipating how many people would attend to one's picture uploads or status updates to imagining others' reactions to either, Facebook is indeed a prime environment for encouraging users to focus on aspects of the self that are observable by others. Available evidence suggests that individuals who score high on this trait are more likely to engage in selective self-presentation with the goal of creating a positive public image (Choi et al., 2019). Directly relevant to the context of Facebook, PSC was associated with selective and positive self-presentation on Facebook (e.g., "posting photos that only show the happy side") for both Korean and U.S. participants (Lee-Won et al., 2014, p. 417). Extrapolating from these findings, we further suggests that, in their attempt to create a positive public image, users high in PSC are also likely to engage in emotion suppression more frequently. That is, concerned with their public image, users high in PSC are likely more concerned with how others respond to them and strategically decide which emotional experiences are best kept to oneself. Based on the reasoning above, the following hypothesis was drawn:

H1: PSC will be positively associated with emotion suppression on Facebook.

2.3. Culture: Valuing interdependence (vs. independence)

While emotion regulation may be guided by personal needs or desires dictated by personality traits, we argue that cultural goals (Mesquita et al., 2014) are also worth considering. Defined as socially shared knowledge structures about the world, culture includes values, practices, norms, and beliefs (Chiu & Hong, 2007; Hong et al., 2000). It has often been operationalized as national groups, an approach criticized partly due to insufficient empirical justification for inferring cultural effects (Matsumoto & Yoo, 2006). Consequently, measuring cultural traits at the individual level across different national groups has been proposed, for its ability to explain underlying mechanisms of cultural influence.

Of particular interest to the current research is the cultural trait of valuing independence vs. interdependence (Markus & Kitayama, 1991; Schwartz, 1992; Triandis,

1989) due to its relevance to both interpersonal relationships and emotions. Individuals valuing independence emphasize personal (vs. collective) goals and value autonomy, competence, and uniqueness, and being in control (Markus & Kitayama, 1991; Kitayama et al., 2010). They are encouraged to be emotionally expressive because displaying positive as well as negative emotions may reveal internal attributes and the uniqueness of their identity. Emotion suppression, on the other hand, is viewed as inauthentic (English & John, 2013). Habitual emotion suppression tends to be associated with negative social and health outcomes, such as disrupted social interaction (e.g., disinterest), depression and decreased life satisfaction (Butler et al., 2003; Gross & John, 2003; Soto et al., 2011). In contrast, individuals valuing interdependence emphasize in-group goals and value relationship harmony, respect for tradition, being self-critical and aware of others' expectations (Markus & Kitayama, 1991; Kitayama et al., 2010). They are encouraged to moderate positive as well as negative emotion expression in order to fit in and preserve social harmony. Displaying emotion is viewed as having negative social costs, such as relationship conflict (Gross & John, 2003; Kim et al., 2008). Further, emotion moderation, including suppression, is normative and not necessarily associated with low quality social interaction and adverse health or well-being outcomes (Butler et al., 2007, Soto et al., 2011).

Given that Facebook is a public platform that makes posted messages visible to others and tends to encourage positive self-presentation, individuals valuing interdependence are likely to suppress expressive emotion compared to those valuing independence. Thus, the following hypothesis was drawn:

H2: Valuing interdependence (vs. independence) will be positively associated with emotional suppression on Facebook.

2.4. The interplay between personality and culture: Public self-consciousness X valuing interdependence (vs. independence)

Although personality and culture can serve as predictors of emotion suppression independently, the current research argues for the importance of an interactionist perspective (Endler & Magnusson, 1977; Hofstede & McCrae, 2004) in understanding emotion regulation. For one thing, traits that explain cultural group differences are not reducible to meaningful personality traits (Na et al., 2010). Additionally, personality traits (e.g., the big five) were originally developed to explain individual differences and, as such, these traits cannot be adequately used to explain cultural group differences. An interaction framework, instead, allows us to explore whether and how personality traits (PSC) operate differently under varying cultural traits (valuing independence vs. interdependence). The nature of the interactive effects may depend on the match and mismatch of these two types of predictors, resulting in strengthening or weakening emotion suppression. To our knowledge, no prior study directly examines these interactive effects in the domain of emotion regulation; however, Fulmer et al. (2010) provides an insight into the importance of person-culture match that may enhance subsequent positive psychological outcomes (see also Chatman & Barsade, 1995 for a similar framework involving person-organization fit). Using data from 26 countries, the researchers (Fulmer et al., 2010) reported that the match between personality (e.g., extraversion) and culture (e.g., valuing extraversion rather than introversion) enhanced self-esteem and psychological well-being. In a similar vein, recent research highlights the importance of feeling 'right' in enhancing psychological well-being (e.g., Tamir et al., 2017). This feeling allows individuals to realize their central cultural mandates in a specific culture-relevant situations. For example, Koreans may see improved

well-being when they experience socially 'engaging' emotions (e.g., closeness, guilt), particularly in 'relatedness-promoting' situations at home, whereas U.S. Americans may do so when they experience socially 'disengaging' emotions (e.g. pride, superiority), particularly in 'autonomy-promoting' situations at work (De Leersnyder et al., 2015).

Although these studies did not explore emotion regulation directly, the logic pertaining to the alignment between personal and cultural (situational) goals can be applied to the current context. Accordingly, we hypothesized that individuals high in PSC may suppress their expressive emotions to fulfill personal goals, and when their cultural traits (i.e., valuing interdependence) are congruent with this tendency, the combined effect on suppression may be further amplified. Thus, by considering the two traits-personality and culture, we may be able to explain and predict emotion regulation on Facebook in a more nuanced way. Based on this reasoning, the following hypothesis was drawn:

H3: The positive association between public selfconsciousness and emotion suppression on Facebook (stated in H1) will be stronger among those valuing interdependence (vs. independence).

2.5. Relationship concern as a mediator

In addition to the moderating effect of cultural traits, we further explore mechanisms underlying emotion suppression on Facebook, by specifically addressing individuals' relationship concern that reflects their desires to focus on relationships and maintain ingroup harmony (Markus & Kitayama, 1991; Triandis, 1989). Relationship concern as a potential mediator is proposed because emotion suppression "requires self-monitoring and self-corrective actions throughout an emotional event" (Gross, 2001, p. 217). Given the public nature of Facebook interactions, sensitivity to other users' responses and evaluation might well govern subsequent

relationship concern particularly for expressing emotion. For example, individuals who disclose negative emotions may fear that they place a burden on others, hurt someone else, elicit negative judgment from others, or that they fail saving face (Kim et al., 2008; Taylor et al., 2004). Likewise, those who express positive emotions may fear that they invite others' jealousy and disrupt ingroup harmony and solidarity within their social network as a result (Miyamoto & Ma, 2011).

In the context of the traits discussed previously, it is reasonable to expect that some personality traits and cultural norms encourage more sensitivity to these concerns than others. Psychological personality dispositions are associated with underlying motivations of social media use (Rubin, 2009) and social interaction (Daly, 2011). The current research focuses on PSC and predicts that relationship concern is a result of expressing positive and negative emotions on Facebook, because individuals high in PSC tend to judge others' thoughts, feelings, and behaviors with a strong desire to maintain a positive public image (Lee-Won, 2014; Yang et al., 2012). Likewise, cultural traits can predict communication behaviors (Singelis & Brown, 1995). In particular, valuing interdependence is associated with communicating by using implicit and ambiguous messages in an attempt to be sensitive to others' prevailing emotional states (Gudykunst et al., 1996; Gudykunst & Ting-Toomey, 1988). Expressing positive and negative emotion explicitly

can be construed as hurting others (e.g., inviting jealousy) or imposing on others (e.g., demanding time and attention) (Kim et al., 2008; Miyamoto & Ma, 2011; Taylor et al., 2004), which can be associated with relationship concern within Facebook social networks. In contrast, valuing independence is associated with communicating by using explicit and clear messages in order to express one's true internal characteristics (Gudykunst et al., 1996; Gudykunst & Ting-Toomey, 1988). Expressing positive and negative emotions can be construed as a way to savor positive life events (e.g., academic achievement) or to seek out social support (e.g., getting emotional support) (Kim et al., 2008; Miyamoto & Ma, 2011; Taylor et al., 2004), and thus alleviate relationship concern within Facebook social network.

Furthermore, mirroring the reasoning in the previous section, the interaction between personality and cultural traits may also play a role in the mediating relationship explained above. Accordingly, we predict that those who are high in PSC and value interdependence (vs. independence) will show enhanced expressive suppression through relationship concern, which would suggest a moderated mediation effect. Based on this reasoning, the following hypotheses were drawn:

H4: The interaction of personality and cultural traits will be associated with emotion suppression on Facebook through relationship concern. Specifically, the mediated relationship between public self-consciousness

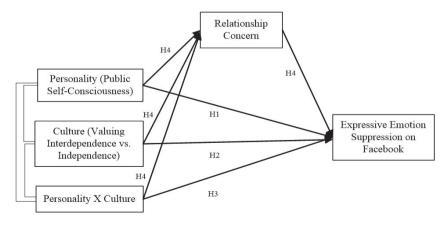


Fig. 1. Hypothesized relationships

and emotion suppression through relationship concern will be stronger among those valuing interdependence (vs. independence).

The full theoretical model including all hypotheses is shown in Fig. 1.

3. METHOD

3.1. Participants and procedures

Two professional survey companies were commissioned in the U.S. (Dynata) and South Korea (Embrain) to conduct an online survey. Online panel members aged 18 and older ($N_{U.S.} = 6,201$; $N_{South Korea} = 4,500$) were sent an invitation email, and 3,088 and 1,092 members, respectively, clicked on the survey link. Participants had to pass several screening questions. Specifically, to control for the various degrees of acculturation to each of the two countries (see Leu et al., 2011), participants had to be born and raised in the U.S. or South Korea, respectively, and hold citizenship in that country. They also had to be active Facebook users. For example, they had to have posted at least one message on Facebook in the three months prior to data collection. Those who did not meet these criteria were excluded from participating in the study through the screening questions. After the screening questions, 320 U.S. American (51.9% female, $M_{age} = 31.23$, SD = 7.81) and 336 South Korean Facebook users (46.7% female, $M_{\rm age}$ = 31.34, SD = 8.25) were included in the final sample. A majority of U.S. participants were Whites (83.8%), followed by African Americans (17.8%) and other (3.7%). The companies compensated participants through cash-equivalent points.

An English version of the questionnaire was developed first and then translated into Korean by one of the authors who is bilingual in English and Korean. Subsequently, a professional translator who is also bilingual in English and Korean translated the Korean version of the questionnaire back into English to validate the translation (i.e., back-translation, see Brislin, 1970). Finally, inconsistencies were negotiated, and the two versions of the questionnaires were finalized. All procedures were approved by IRB.

3.2. Measures

3.2.1. Public self-consciousness

Participants indicated the extent to which six items assessing PSC (Scheier & Carver, 1985) characterized them $(1-Not \ at \ All \ Like \ Me \ to \ 7-A \ Lot \ Like \ Me)$. Items included "I care a lot about how I present myself to others" and "I usually worry about making a good impression" and a composite index was created.

3.2.2. Valuing independence vs. interdependence

Twelve items were used to measure valuing independence and interdependence (Schwartz, 1992; Sims et al., 2015). Participants were asked to indicate the extent to which, as a guiding principle in their lives, they found each of the 12 values to be important to them. Values tapping into independence included success, influence, capability, self-respect, independence and choosing one's own goals (M = 4.37, SD = .92, α = .86), whereas values tapping into interdependence included courtesy, self-restraint, conformity, respect for tradition, reciprocation and accepting one's role in life (M = 4.06, SD = .87, a = .77). The scale ranged from 1 (Not at All Important) to 6 (Supremely Important). Because these two values were highly correlated (r =.73), independence scores were subtracted from interdependence scores. Accordingly, an index reflecting valuing interdependence relative to independence was created, with positive and negative values representing the relative importance of interdependence vs. independence, respectively (Butler et al., 2007; Sims et al., 2015 for a similar procedure).

3.2.3. Emotion suppression on Facebook

Participants were asked to indicate how they control their emotions while engaging in Facebook activities. Four items were used to measure the extent to which participants suppress their emotion on Facebook on a scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree) (Gross & John, 2003). Example items include "When I am feeling negative emotions, I make sure not to express them" and "When I am feeling positive emotions, I am careful not to express them." Participants were reminded that they had to consider all items in the context of Facebook activities, right before the measurement items were presented. A composite index was created.

3.2.4. Relationship concern

Participants were asked to indicate their agreement with each of nine statements tapping into relationship concern related to emotion expressiveness on Facebook (Miyamoto & Ma, 2011; Taylor et al., 2004). The scale ranged from 1 (Strongly Disagree) to 7 (Strongly Agree). An exploratory factor analysis using Principal Axis Factoring extraction with promax rotation ($\kappa = 4$) suggested two distinct factors that accounted for 54% of the variance: relationship concern of expressing positive emotion vs. negative emotion. Example items included "I do not want to burden my Facebook friends

by expressing my negative emotions," "I try to keep negative emotions to myself because expressing negative emotions may make my Facebook friends feel them, too," and "I am afraid of hurting the feelings of Facebook friends who do not feel the same positive emotions," "I do not want to make my Facebook friends feel jealous of me" respectively.

3.2.5. Control variables

Facebook was introduced earlier in the U.S. than in South Korea (Morrison, 2010), and its usage is more prevalent in the U.S. than in South Korea. Accordingly, several relevant use variables were measured and controlled. First, amount of Facebook use was estimated by multiplying daily Facebook use in minutes and duration of using Facebook in months (Lee-Won et al., 2014). Second, the number of Facebook friends were measured. Because of high skewness, these two variables were log-transformed respectively. Third, frequency of involving various Facebook activities (e.g., posting, commenting, reading, tagging, clicking on a like button, etc.) was also measured using a 7-point scale ranging from 1 (Never) to 7 (Always), and a composite index was created. Finally, age and gender were also served as control variables.

Descriptive statistics and zero-order correlations of the variables used are presented in Table 1.

	M (SD)	а	1	2	3	4	5	6	7	8	9	10
1 Age	31.29 (8.03)	-	1									
2 Gender (Female = 1)	-	ı	04	1								
3 Amount of FB Use	3.74 ^a (.55)	-	11**	01	1							
4 Number of FB Friends	2.12 ^a (.65)	-	17***	.03	.36***	1						
5 Frequency of FB Activities	4.09 (1.17)	.92	.00	07	.39***	.08*	1					
6 Public Self-Consciousness	4.57 (1.17)	.86	03	.05	.14***	.10*	.37***	1				
7 Valuing Interdep (vs. Indep)	31 (.66)	.73 ^b	.09*	09*	05	12**	03	04	1			
8 RC (Positive Emotion)	4.11 (1.43)	.77	.02	13**	.02	08	.24***	.30***	.16***	1		
9 RC (Negative Emotion)	4.15 (1.36)	.87	001	04	02	05	.21***	.39***	01	.56***	1	
10 Emotion Suppression	4.00 (1.31)	.83	06	14***	01	04	.20***	.32**	.12**	.44***	.47***	1

Table 1. Descriptive statistics and zero-order correlations among variables

Note. FB = Facebook, Interdep = Interdependence, Indep = Independence, RC = Relationship Concern.

^a = log-transformed. ^b = correlation between valuing interdependence and independence. **p < .01, ***p < .001.

4. RESULTS

4.1. Preliminary analysis: Korea vs. the U.S. group differences in focal variables

We conducted a multivariate analysis of covariance to examine the differences in the five focal variables among the two cultural groups (Korea vs. the U.S.) while accounting for the control variables. The analysis allowed us to examine differences between levels of the country variable as a function of a combination of the five focal variables. Results showed a significant multivariate main effect for cultural group, Wilks' $\lambda =$

Table 2. Adjusted marginal means of the five focal variables as a function of cultural group

	Korea M (SE)	the U.S. M (SE)	Univariate F (1, 643)
Public Self-Consciousness	4.63 (.06)	4.51 (.07)	1.39
Valuing Interdependence ^a (vs. Independence)	16 (.04)	45 (.04)	26.81***
Relationship Concern (Positive Emotion)	4.30 (.08)	3.91 (.08)	9.64**
Relationship Concern (Negative Emotion)	4.14 (.08)	4.19 (.08)	.20
Emotion Suppression	3.92 (.08)	4.08 (.08)	1.73

Note. a = Negative value represents the relative importance of independence. SE = Standard Error. **p < .01, ***p < .001.

Table 3. Predictors of Emotion Suppression on Facebook

Step 1	etas.
Age	08*
Gender (Female = 1)	13**
Amount of Facebook Use	11*
Number of Facebook Friends	03
Frequency of Facebook Activities	.24***
R^2	.07***
Step 2	
Public Self-Consciousness	.29***
Valuing Interdependence (vs. Independence)	.11**
$\triangle R^2$.08***
Step 3	
Personality Trait X Cultural Trait	.13***
$\triangle R^2$.02***
F	16.86***
N	649

Note. p < .05, p < .01, p < .01.

.93, F (5, 639) = 9.39, p < .001, partial η^2 = .07. Accordingly, the results of a series of univariate analyses were examined (Table 2). They revealed that U.S. Americans valued significantly more independence than Koreans, and Koreans reported significantly more relationship concern for expressing positive emotion on Facebook than U.S. Americans. No cultural group difference was found for the remaining three variables.

4.2. Emotion suppression on Facebook as a function of PSC and valuing interdependence (vs. independence)

A hierarchical regression was conducted to test the main effects of the two traits and their interaction (Table 3). First, the five control variables were entered, and four of them turned out to be significant predictors. Young, male, light Facebook users tended to suppress emotion on Facebook. Various Facebook activities participants involved were also associated with great emotion suppression. Subsequently, the two traits were entered next, both emerging as significant predictors high levels of both PSC and valuing interdependence were positively associated with suppression. Thus, H1 (main effect of PSC) and H2 (main effect of cultural values) were supported. Finally, the interaction term between the two traits centered was entered last, and this was also significant. The nature of this interaction (PROCESS Model 1, Hayes, 2017) suggests that the positive association between PSC and expressive suppression on Facebook was much stronger among those valuing interdependence (b = .49, t = 7.85, p < .49.001) than independence (b = .21, t = 3.83, p < .001), supporting H3 (Fig. 2).

Of interest, we also examined whether the country variable moderates any of the relationships in the hypothesized regression model. Specifically, we entered the country variable (dummy coded, Korea = 1) and its related interactions (i.e., Country X PSC, Country X

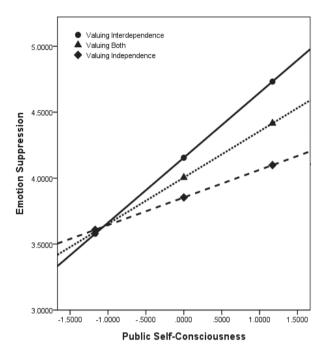


Fig. 2. Personality (public self-consciousness) X culture (valuing independence and interdependence) that predicts emotion suppression on Facebook

Cultural Value, Country X PSC X Cultural Value) into the equation that predicts emotion suppression. Results revealed no significant interactions involving the country variable.

4.3. Moderating role of culture (valuing interdependence vs. independence) in the mediation effect of relationship concern

Because relationship concern consisted of two distinct factors, both were entered as mediators simultaneously. PROCESS Model 7 with bootstrapping procedure (n = 5,000) to test moderated mediation, and the same control variables were entered (Fig. 3). First, regarding the relationship concern for expressing *positive* emotion as a mediator, results showed that both PSC (b = .34, t = 7.14, p < .001) and valuing interdependence (vs. independence) (b = .34, t = 4.16, p < .001) predicted relationship concern. Importantly, the interaction of the two traits was significant in predicting relationship concern, b = .17, t = 2.53, p < .05. The nature of this

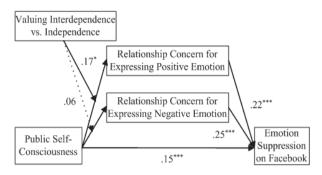


Fig. 3. Mediating relationship between public self-consciousness and emotion suppression on Facebook through relationship concern for expressing positive and negative emotion: The moderating role of cultural value. Entries are unstandardized b. $^*p < 0.05$, $^{***}p < 0.001$.

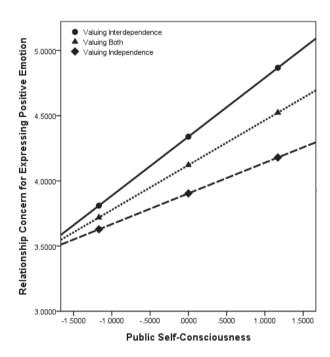


Fig. 4. Personality (PSC) X culture (valuing independence and interdependence) as predictors of relationship concern for expressing positive emotion on Facebook

interaction (Fig. 4) suggests that the positive association between PSC and relationship concern was stronger among those valuing interdependence (b = .45, t = 6.57, p < .001) than independence (b = .24, t = 3.94, p < .001). Importantly, the mediated relationship between PSC and emotion suppression through relationship concern was stronger for those valuing interdependence than for those valuing independence (Table 4), index of moderated mediation = .04. SE = .02, 95% CI [.01, .08].

Second, regarding relationship concern for expressing

Table 4. Conditional indirect effects of PSC on suppression at values of the moderator

	b (SE)	95% CI
$PSC \rightarrow RC \text{ (Positive)} \rightarrow Suppression}$ $Independence \text{ (M-1)}$ $Valation bethe (M-1)$.05 (.02)	[.02, .09]
Valuing both (M) Interdependence (M+I)	.07 (.02)	[.04, .12] [.05, .15]
$PSC \rightarrow RC \text{ (Negative)} \rightarrow Suppression$ Independence $(M-1)$.10 (.03)	[.06, .16]
Valuing both (M) Interdependence $(M+1)$.11 (.03) .12 (.03)	[.06, .17] [.06, .19]

Note. PSC = Public Self-Consciousness, RC = Relationship Concern, SE = Standard Error.

negative emotion as a mediator, results showed that PSC (b = .43, t = 9.49, p < .001) predicted relationship concern significantly, whereas valuing interdependence (vs. independence) (b = .06, t = .75, p = .46) did not. The interaction of the two traits was not significant either, b = .06, t = .10, p = .33. Accordingly, no significant moderated mediation effect was revealed through relationship concern (Table 4), index of moderated mediation = .02. SE = .02, CI [-.02, .05]. Thus, H4 was partially supported because the moderated mediation through relationship concern was only significant for expressing positive emotion.

Of interest, we also entered the country variable (Korea = 1) and its related interactions (i.e., Country X PSC, Country X Cultural Value, Country X PSC X Cultural Value) into the equation that predicts relationship concern for expressing positive and negative emotion, respectively. Again, results revealed no significant interaction effects.

5. DISCUSSION

This research tested the interplay between personality (PSC) and cultural traits (Valuing Interdependence vs. Independence) in modulating emotion suppression on Facebook, along with underlying mechanisms of relationship concern. Exploring the interplay between the two traits contributes to both personality and cross-cultural research, by offering a more nuanced understanding of emotion regulation. In particular, considering individual differences within cultural groups provides a more

dynamic view of culture, whereas considering cultural traits within individual difference categories challenges the common assumption that personality is transcultural and trans-situational.

Results showed that this interplay was significant. Specifically, the positive association between PSC and suppression on Facebook was stronger among those who valuing interdependence (vs. independence), suggesting the importance of the congruence between personality and culture that enhances the subsequent relevant outcome. The interplay was also mediated by relationship concern for expressing positive emotion. Namely, PSC was associated with suppression on Facebook through relationship concern, and this mediation was significantly stronger among those who value interdependence (vs. independence). In contrast, the relationship concern for expressing negative emotion did not vary as a function of the two types of traits. The positive association between PSC and relationship concern was not moderated by valuing interdependence (vs. independence). It is possible that, across cultures, Facebook circles include connections who are not particularly close to the user, so users are more generally concerned about their potential negative public image. Specifically, those valuing independence may realize the cultural mandates related to expressing negative emotion and soliciting social support; however, in the Facebook context, doing so may risk straining relationships and impairing users' social reputations. We also examined the potential interaction between country and cultural values in the hypothesized model; however, no significant moderation effect of country was revealed. Instead, country made difference only for cultural values and relationship concern for expressing positive emotion.

It should be noted that this research collected data from South Korea and the U.S. Future research may recruit participants from other Asian or Western European countries to determine the replicability of our findings. Further, because this research relied on a cross-sectional survey, future research could employ cross-lagged panel or experimental designs to test the causal influence of culture (Oyserman & Lee, 2007) as well as the mutual influence of psychological traits and communication behaviors (Oliver et al., 2006; Slater et al., 2003) more directly. It is also important to note that the personality-culture alignment effect has been explored mainly in the domain of well-being, and the current research attempts to establish this effect in emotion suppression. Future research may replicate the current findings in other relevant emotion regulation settings that go beyond Facebook contexts.

Finally, this research operationalized cultural traits as social orientation values that are internalized among cultural members. However, Chiu and his colleagues (2010) suggested that perceived consensus in a given culture rather than internalized personal views may explain culture influence better. Thus, future research may benefit from measuring perceived consensual (vs. personal) values (see also Zou et al., 2009). Future research may also utilize other dimensions of culture, such as analytic vs. holistic thinking style (Nisbett et al., 2001), particularly by focusing on the notion of dialectic emotion (Wilken & Miyamoto, 2018). Our findings revealed significant cultural differences for relationship concern related only to expressing positive emotion on Facebook; considering dialectic emotion, which emphasizes potential undesirable and even unhealthy aspects of expressing positive emotion in East Asian cultures, may further elucidate emotion regulation on Facebook. We hope that both personality and cross-cultural research would benefit each other by integrating their theoretical framework to advance the existing literature, so that we can treat both personality and culture as dynamic rather than static traits.

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Received: 2021.08.10 Revised: 2021.09.13 Accepted: 2021.09.24

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