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"*Chemyeon*," the Korean Face: *Finalizing the Scale and Validity through Self-Construal*

Yungwook KIM and Youjin JANG

Abstract

Even though the term chemyeon *encompasses its own cultural uniqueness, there have only been a small number of attempts to develop a scale which embraces the characteristics of* chemyeon. *This scale has not been previously fully checked for validity and theoretical applicability. The purpose of this study is to test the validity of the existing scale and to check its theoretical applicability in relation to self-construal. This study confirms the previous presumption that* chemyeon *consists of six factors with ethics, competence, demeanor, social performance, social personality, and social pride. This study also verifies that the concept of* chemyeon *consists of two dimensions: social* chemyeon *and personal* chemyeon. *As the predictive validity of the two-dimension model was anticipated, the correlation between social* chemyeon *and independent self-construal was found to be negative. However, the correlation between personal* chemyeon *and independent self-construal was found to be positive. Theoretical implications and ramifications for future study are discussed based on the results.*

Keywords: *chemyeon*, personal *chemyeon*, social *chemyeon*, self-construal, face, predictive validity, scale

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Introduction

Some people might think of *face* as an old concept and theory. However, the so-called "face" and "face-work" have profoundly influenced all kinds of human communication. In particular, many communication studies have shown that people are easily influenced by face when they are in conflict situations (Hodgins, Liebeskind, and Shwartz 1996; Jia 1997; Kim and Yang 2011a, 2011b, 2013, 2015b; Oetzel et al. 2001; Ting-Toomey 1988; Ting-Toomey and Kurogi 1998). According to these studies, if people think that their face is threatened, they feel offended and become defensive, and consequently, they can reject communication itself or avoid the negotiation process even if they have to reach an agreement with others.

The so-called "face" has more impact on collective societies, especially Korea (Lim and Choi 1996). In the Korean language, the face is referred to as "*chemyeon*."[1] *Chemyeon* is closely related to most aspects of otherwise mundane social interactions in Korean society (Lim and Choi 1996). *Chemyeon* is similar to the Western concept of face in that *chemyeon* forms part of the basic background to social relations. For example, *chemyeon* plays a critical role when an individual tries to maintain good social relationships with others (Lim and Choi 1996) since he or she tends to "save" *chemyeon* by selectively exposing his or her best sides (Goffman 1959, 1967). However, *chemyeon* is a unique construct in some regards compared to the Western concept of face.

First, contrary to the Western concept of the face which relates to a self-image, *chemyeon* is associated with a social self-concept (Lim and Choi 1996). Second, researchers have asserted that social interactions, which are relatively microscopic and visible, shape the Western face. *Chemyeon*, however, is influenced by a social standard which is given by a macroscopic and invisible society (Kim and Yang 2015a). Third, *chemyeon* is a more collectivistic concept than the Western notion of the face because *chemyeon* is shared within a group (Shim, Kim, and Martin 2008).

Even though *chemyeon* has its own cultural uniqueness, there have been

1. In previous articles written by the authors, the Korean word "체면" was romanized as "*chemyon*."

only a few attempts to develop a scale which embraces the characteristics of *chemyeon* (Choi and Lee 2002; Kim and Yang 2011b). Moreover, many of these attempts have not thoroughly checked the validity of such scales. For example, Kim and Yang (2011b) developed the *chemyeon* scale in relation to the types of negotiation styles utilized by individuals. However, the scale was not fully checked for validity and theoretical applicability. Therefore, the purpose of this study is to test the validity of existing scales and to check the theoretical applicability of such scales in relation to self-construal. To achieve this purpose, the present study begins with a literature review of previous studies, which will lead to research questions regarding the dimensionality of the scale and its validity.

Theoretical Background

Concepts of Face

According to Erving Goffman (1959, 1967), every person is an actor who has his or her own stage. On this stage, individuals try to show other people positive aspects of themselves and wear the masks that fit their roles. Goffman has a word for this mask—face. Since the characters of these faces depend on what is socially approved, the face is related to interactions with other people. People, meanwhile, are likely to be consistent with their faces during these social interactions. Goffman calls the action which people do to be consistent with their face, "face-work." In particular, people try to do face-work when they feel that their face is threatened. Goffman separates face-work into two processes. One is the avoidance process in which people try to avert possible threats to their face, and the other is the corrective process through which people make an attempt to recover their face's consistency after their face is threatened.

Since Goffman, many other scholars have studied face theory and its effects on communication behavior. Brown and Levinson's (1987) theory of politeness is one of these efforts. They divided the concept of the face into two categories: One is "negative face" which is related to one's independence and

autonomy, while the other is "positive face," which is associated with one's competence and ability. According to this theory, when "face-threatening acts (FTAs)" occur, people can use five politeness strategies to defend their face (Brown and Levinson 1987; Lim and Bowers 1991). These five politeness strategies include bald on record, positive politeness, negative politeness, off-record, and withholding FTA by the degree of sequentially increasing politeness (Brown and Levinson 1987).

However, the theory of politeness has been criticized for various reasons (e.g., Lim and Bowers 1991). One of the limits of this theory is that positive face-work and negative face-work were regarded as opposite ends of a spectrum. However, many scholars assert that positive face-work and negative face-work are separate phenomena, therefore these two types of face-work can be used at the same time (Lim 1990; Scollon and Scollon 1983). Furthermore, another limitation of this theory is that it is not applicable to types of communication situation other than FTAs, even though people use face-work strategies in all kinds of communication situations, including FTAs.

To address this limitation of the theory, Lim and Bowers (1991) suggest three types of face-wants: the fellowship face-wants; competence face-wants; and autonomy face-wants. These different types of face-wants lead to different types of face-works. For example, solidarity face-work is matched with fellowship face-want, approbation face-work is connected with competence face want, and tact face-work is related to autonomy face-want.

Face negotiation is another face-related theory (Ting-Toomey 1988; Ting-Toomey and Kurogi 1998). This theory suggests propositions regarding face-work based on both the cultural and individual levels (Oetzel et al. 2001; Ting-Toomey 1988; Ting-Toomey and Kurogi 1998; Ting-Toomey, Oetzel and Yee-Jung 2001). The conjoint co-constituting model (Arundale 1999, 2010) also describes face as a "social phenomenon" which is interchanged by both the speaker and the listener. Through daily communication, speakers and listeners share their meanings and reconfirm their face with each other.

Chemyeon*, the Korean Face, and Cultural Contexts*

Before Goffman created the face theory, he gathered ideas from Chinese culture

(Bargiela-Chiappini 2003; Cocroft and Ting-Toomey 1994). However, *mianzi* (the Chinese concept of the face) and Goffman's face are not the same concept since there are cultural differences between East and West (e.g., Cocroft and Ting-Toomey 1994; Oetzel et al. 2001). The concept of face in different cultures is influenced by cultural norms and standards. Harre and Gilett (1994) insist that people within the same culture hold similar norms to follow and standards to conform to in common. Thus, the degree of influence and the particulars of face differ from country to country.

Face influences Koreans' communication activities for the most part under the doctrine of Confucianism (Choi and Lee 2002; Sue, Ino, and Sue 1983). In particular, Confucianism stresses the importance of harmony within communities. Thus Koreans cherish social relationships as the most important part of life, and fostering social networks demonstrates personal competence. In this culture, the face is one of the most effective social skills used to start and maintain relationships. To be specific, Koreans try to avoid conflict by allowing others to save face and having a good relationship by saving their own face. As a result, they tend to communicate indirectly and try to make a good impression in regard to other people (Choi and Lee 2002; Shim, Kim, and Martin 2008).

The English word "face" can be translated as "*chemyeon*" in the Korean language. According to Lim and Choi (1996), although *chemyeon* is similar to the Western notion of face and the Chinese notion of *mianzi*, it is a more complex concept than either of those. For example, face and *chemyeon* have a lot in common: They are a kind of self-image, formed through social interactions, which reflect positive social values. Nonetheless, *chemyeon* has different characteristics compared to face: (1) The Western face is more like a personal self-image, whereas *chemyeon* is more like a social self-image; (2) much in *chemyeon* is determined by society, not only through social interactions; (3) face is an individual concept in general, whereas *chemyeon* is a matter for one's family, colleagues, company, and the in-group. Thus, the loss of *chemyeon* is shared within a group (Kim and Yang 2011a). This phenomenon reflects the tradition of collectivism and authoritarianism in South Korea.

Kim and Yang (2011a, 2011b, 2013) have studied the influence of *chemyeon* on communication processes. According to their research (2011b), if people's social *chemyeon* level is high, they tend to avoid social conflict. However, if

people's personal *chemyeon* level is high, they are more inclined to try to find a way to resolve conflict. The study results demonstrate that *chemyeon* influences the choice of negotiation strategies (2015b). When negotiators have a higher level of social *chemyeon*, they tend to choose unethical strategies in negotiation situations (2015b).

The Components of Chemyeon *and Measurement Scale*

People assess themselves through others' judgment on many occasions. The *chemyeon* measurement scale consists of items that describe situations where people can lose face, and asks people to assess how big the damage to their face would be in those situations (Kim and Yang 2011b). These items can be divided into seven subsets with two dimensions: ethics, social performance, social personality, social pride, competence, demeanor, and shame (Kim and Yang 2011b). The subset of shame *chemyeon* is finally excluded after a validity check, which finalizes the scale with six subsets.

The first subset, ethics *chemyeon*, is associated with moral and ethical decision-making situations where people can feel that their face is threatened. The second subset is social performance *chemyeon*, which is related to people's social networks and social achievements. The items constructing social performance assume that people lose face if their social performance is inferior to others. The third subset is social personality *chemyeon* which postulates people's thoughts about how others see them. If people think that others have an unfavorable opinion of themselves, they will lose face from a social personality perspective.

The fourth subset is social pride *chemyeon*, which is related to one's social status. Social pride items are associated with situations where people compare their social status to others. The fifth subset is competence *chemyeon*, which demonstrates an individual's ability by their achievements. The sixth subset is demeanor *chemyeon*, which is linked to an individual's adequate behavior or appropriate manners. For example, an individual's face can be threatened when people think their behavior is inadequate and improper in specific situations. The seventh subset is shame *chemyeon*, which delineates an individual's feeling of embarrassment in circumstances of high pressure or unpreparedness.

Nonetheless, shame has not been adopted as a measure of *chemyeon* since shame has both social and personal properties and was found to have no relationship with face-work strategies in previous studies (Kim and Yang 2011a, 2011b, 2013).

Although Kim and Yang (2011b) checked the *chemyeon* scale's content validity through conducting exploratory factor analysis, the *chemyeon* measurement scale was not buttressed by other validity checking processes. Therefore, this study aims to examine the diverse validity of the scale and investigate whether the six-factor model or the seven-factor model is more valid in order to corroborate the *chemyeon* scale.

Research Question 1: Is the *chemyeon* measurement scale valid? Is the six-factor model or the seven-factor model more valid?

According to previous research, these subsets can be categorized into two broad dimensions: social *chemyeon* and personal *chemyeon* (Kim and Yang 2011b, 2015b; Lim 1994; Lim and Choi 1996). Both social *chemyeon* and personal *chemyeon* are related to social norms and can be used interchangeably. However, there are differences between the two concepts. The differences can be derived from their emphasis either on an individual or society. Social *chemyeon* is a relative concept because this can be gained or lost by comparing oneself to others, whereas personal *chemyeon* represents meeting personal standards. Personal *chemyeon* can be threatened when people behave in an inappropriate and socially unacceptable manner. In other words, personal *chemyeon* is related to the display of proper courtesy in a given situation. Thus, personal *chemyeon* is similar to the Western concept of face in that both personal *chemyeon* and Western face are influenced by the nature of situations (Goffmann 1967; Lim and Choi 1996).

On the other hand, social *chemyeon* refers to an individual's desire for social approval and recognition (Lim 1994; Kim and Yang 2011b). In previous research (Kim and Yang 2011b), social *chemyeon* is regarded as the drive to be recognized by others and consists of social performance *chemyeon*, social personality *chemyeon*, and social pride *chemyeon*. In contrast, personal

chemyeon explains an individual's desire to attain autonomy and maturity. Personal *chemyeon* consists of ethics *chemyeon*, competence *chemyeon*, and demeanor *chemyeon*.

Given that, Kim and Yang (2011b) assert that social *chemyeon* can be a barrier to solve social conflicts in Korea. In their study, the types of *chemyeon* are related to the types of face work strategies used by an individual to solve a conflict. For example, individuals who have higher social *chemyeon* compared to personal *chemyeon* preferred to avoid conflicts, while individuals who have higher personal *chemyeon* than social *chemyeon* preferred to try and solve conflicts actively. Even though Kim and Yang (2011b, 2015a) proposed that personal *chemyeon* and social *chemyeon* are to be treated as two opposing dimensions, discriminant validity was assumed, but not tested. Thus, the factor structure and dimensions of the *chemyeon* scale have to be confirmed through the appropriate statistical process.

Research Question 2: Can the *chemyeon* measurement scale be divided into the two broad dimensions of social *chemyeon* and personal *chemyeon*?

The Relationship between Chemyeon *and Self-Construal*

In order to examine the predictive validity of the *chemyeon* scale, this study examined the relationship between *chemyeon* and self-construal, the latter of which represents the degree of self-recognition. Self-construal is divided into two dimensions: independent self-construal and interdependent self-construal. Independent self-construal is defined as the way individuals identify themselves based on their own abilities or achievements, whereas interdependent self-construal indicates the way individuals define themselves through their social roles or relationships (Makus and Kitayama 1991; Singelis 1994). In other words, if people have a high level of independent self-construal, they might think about themselves separately from "relational or contextual factors" (Singelis 1994, 581). However, if people have a high level of interdependent self-construal, they might have self-images that depend on their connections with others.

This self-recognition is affected by cultural norms and values. Therefore, in an individualistic culture that sets individuals above communities, people are likely to have a high level of independent self-image. On the other hand, in a collectivistic culture that values the entire society over individuals, people tend to have a high level of interdependent self-construal (Makus and Kitayama 1991; Singelis 1994; Singelis and Brown 1995).

One controversial issue affecting self-construal is in relation to the number of dimensions inherent in the concept. Some scholars have insisted that self-construal is a unidimensional concept that has two poles, independent and interdependent self-construal (e.g., Gudykunst et al. 1996; Kapoor et al. 2003). According to these scholars, one of the two characteristics must be more pronounced than the other depending on the situation. People have either independent or interdependent self-images in different contexts.

However, other scholars have asserted that self-construal is a multidimensional concept (e.g., Ting-Toomey and Kurogi 1998; Ting-Toomey, Oetzel, and Yee-Jung 2001). For example, Ting-Toomey and Kurogi (1998) categorized self-construal into four types using two dimensions: biconstrual type (high independent/high interdependent), independent type (high independent/low interdependent), interdependent type (low interdependent/high interdependent), and ambivalent type (low independent/low interdependent). This multidimensional approach is especially useful for a multicultural and multi-ethnic society such as the United States, where there exists diverse cultural values and norms in one society. Since this study was conducted in South Korea, which has a homogeneous ethnic population with relatively few non-Koreans, self-construal was considered to be unidimensional.

However, little attention has been paid to the relationship between *chemyeon* and self-construal. Previous studies have investigated the relationship between self-construal and concepts related to face (i.e., the level of face concern and face threat), rather than the relationship between self-construal and *chemyeon*. For example, Kim et al. (2009) researched the effects of self-construal on the face in specific situations, such as when people have to deliver advice to their friend, ask their friend to do something, or demand that their friends fulfill a duty. People who have a high degree of interdependent self-

construal and a low degree of independent self-construal felt that both their faces and their friends' faces are more threatened than on any other occasions. Also, Oetzel et al. (2001) found that interdependent self-construal influenced face concerns and the need for face-work.

Although there have been no studies which have looked into the relationship between *chemyeon* and self-construal directly, it seems plausible to assume that different *chemyeons* lead to different types of self-construal. *Chemyeon*, as a cultural variable, relates to collectivism (Kim and Yang 2015a). Research suggests that individuals who value collectivism are likely to have a high level of interdependent self-construal (Makus and Kitayama 1991; Singelis 1994; Singelis and Brown 1995, Ting-Toomey 2012, Triandis 1989). Given that, people who are from collectivistic cultures tend to have a high degree of social *chemyeon*. Also, those people are likely to construe themselves interdependently through their social ties with others since a high degree of social *chemyeon* implies individuals' desire for belonging to society (Kim and Yang 2011b, 2015b; Lim 1994; Lim and Choi 1996). In much the same way, people who value individualism tend to have a high degree of personal *chemyeon*. They are likely to perceive themselves independently without considering the context of society because personal *chemyeon* is associated with an individual's autonomy and personal maturity (Kim and Yang 2011b, 2015a; Lim 1994; Lim and Choi 1996). In other words, a high degree of social *chemyeon* can be a predictor of a low degree of independent self-construal, and a high degree of personal *chemyeon* can be a predictor of high degree of independent self-construal.

Research Questions 3: Will the types of *chemyeon* predict the level of independent self-construal?

Research Procedure

Samples of Study 1 and Study 2

Two surveys were conducted by using a survey company panel. Dimensional sampling with age and gender as quota variables was used to collect survey

samples. The first survey sample was used to conduct the confirmatory factor analysis (CFA) and test the scale's validity. The first survey sample consisted of 525 participants. Participants ranged in age from 20 to 71 years old (M = 39.61, SD = 11.30), and 262 were female (49.9%). The second survey sample was used to corroborate the CFA again, and further test the second-order CFA. A predictive validity also was tested in the second survey. Participants (N = 429) ranged in age from 20 to 79 years (M = 39.97, SD = 10.41), and 214 were female (49.9%).

Measure

The first survey questionnaire included the *chemyeon* scale developed in the previous study (Kim and Yang 2011b). The second survey questionnaire included the *chemyeon* scale and the independent and interdependent self-construal scale (Singelis 1994).

The *chemyeon* scale consisted of 29 items from the previous *chemyeon* study (Kim and Yang 2011b). Participants indicated how much they feel that their *chemyeon* has been threatened when the specific situation happens from score 1 (Did not threaten my *chemyeon* at all) to 5 (Threatened my *chemyeon* very much).

To measure for independent and interdependent self-construal, 24 items were adapted from Singelis (1994). Items were measured on a 5-point Likert scale with endpoints ranging from strongly disagree 1 to strongly agree 5. Respective sample items of interdependent and independent self-construal are as follows: "It is important for me to maintain harmony within my group," and "I act the same way no matter who I am with." The interdependent self-construal dimension was reverse-coded to combine self-construal dimensions. Cronbach's alphas of self-construal (interdependent = .85, M = 3.47, SD = 0.54, independent α = .83, M = 3.36, SD = 0.48) was satisfactory.

Table 1. Items on the *Chemyeon* Scale

	Items (My *chemyeon* has been threatened ~)
1	When I acted unethically
2	When my behavior was not clear
3	When I have had to engage in inappropriate behavior for the sake of an instant benefit
4	When my words didn't match my behavior
5	When I didn't act adequately
6	When I couldn't follow the social norm
7	When my parents have had relatively lower social status
8	When my family was inferior to other's families
9	When I lack an outstanding academic background
10	When I couldn't achieve social success
11	When I didn't receive a decent evaluation from others
12	When I was not acknowledged by colleagues
13	When I have been presented negatively to others
14	When I couldn't defend myself with a good reason when being criticized
15	When my weakness was shown to someone of lower standing
16	When I failed to keep my pride
17	When I was not treated with respect according to my status or position
18	When my weakness was revealed to others
19	When I couldn't behave in accordance with my status or position
20	When I couldn't fully do my job
21	When I have been inferior to others in my performance
22	When I couldn't keep up with other's expectations
23	When my expertise was not recognized
24	When I couldn't keep neat and tidy
25	When I misbehaved
26	When I acted vulgarly
27	When I have had to ask for a difficult favor
28	When I have had to owe someone something
29	When my secret was revealed to others

Analysis

For RQ1, the confirmatory factor analysis (CFA) was conducted to test the *chemyeon* scale's reliability and construct validity (convergent and discriminant validity). To decide which scale is more valid between the six-factor model and the seven-factor model, the results of CFA were compared. For RQ2, the second order CFA was used. In order to assess the predictive validity of *chemyeon*, structural equation modeling (SEM) was used to test the causal relationship between *chemyeon* and self-construal (RQ3). The Mplus 7 was used to estimate the models and generate fit indices.

Results

Defining the Structure of the Scale in Study 1

The first survey data (Study 1) was used to evaluate the internal consistency of the scale and to test the structure of the scale using confirmatory factor analysis (CFA). In order to assess internal reliability, Cronbach's alpha was calculated. Cronbach's alphas of ethics (α = .89), social performance (α = .83), social personality (α = .85), social pride (α = .84), competence (α = .83), demeanor (α = .83), and shame (α = .83) were greater than the .70 criteria of internal reliability (Nunnally 1978).

The seven-factors model (M1) of *chemyeon* was estimated initially. Although the result of the chi-square test of model fit was not satisfactory with χ^2 (df = 356, N = 525) = 1137.43, p = .00, the other non-normed fit indices indicated a fair fit (RMSEA = .065 with a 90% CI = [.060, .069], CFI = .92, SRMR = .055). The factor loadings also exceeded the acceptance criterion, ranging from .64 to .82.

Table 2. The Results of CFA Using Study 1 Data (7 Factors)

			Estimate				M	SD
			B	SE	t	β		
1	→	Ethics	1.00	.00	.	.78	3.30	0.77
2	→		0.96	.05	20.22	.81		
3	→		0.80	.05	16.78	.71		
4	→		0.84	.05	16.83	.71		
5	→		0.89	.05	18.88	.79		
6	→		0.81	.05	17.42	.74		
7	→	Social performance	1.00	.00	.	.78	2.71	0.88
8	→		0.97	.05	18.76	.80		
9	→		0.87	.06	15.72	.76		
10	→		0.70	.05	12.90	.64		
11	→	Social personality	1.00	.00	.	.73	3.23	0.79
12	→		1.12	.06	18.12	.80		
13	→		1.15	.07	17.57	.78		
14	→		1.02	.06	16.30	.74		
15	→	Social pride	1.00	.00	.	.69	3.14	0.77
16	→		0.90	.06	14.22	.68		
17	→		0.92	.06	14.79	.70		
18	→		1.04	.07	15.53	.75		
19	→		0.93	.06	14.79	.72		
20	→	Competence	1.00	.00	.	.73	3.30	0.79
21	→		1.07	.06	17.05	.77		
22	→		0.94	.06	15.71	.72		
23	→		0.98	.06	16.38	.74		
24	→	Demeanor	1.00	.00	.	.71	3.05	0.86
25	→		1.18	.07	17.18	.82		
26	→		1.21	.07	16.40	.82		
27	→	Shame	1.00	.00	.	.75	3.26	0.89
28	→		1.21	.06	19.32	.84		
29	→		1.05	.06	17.14	.79		

Note: N = 525, SE = Standard Error

In order to assess the convergent validity and the discriminant validity of the seven subscales model, the average variance extracted (AVE) and composite reliability (CR) were calculated. The seven subscales model showed good convergent validity: AVE was greater than .50, CR was greater than .70 at the same time (Hair et al. 2009). Also, as expressed in Table 3, the AVE for each subscale was larger than the square of the correlation between subscales, showing that each latent variable has discriminant validity (Fornell and Larker 1981).

Table 3. Correlations between Latent Values Using Study 1 Data (7 Factors)

		1	2	3	4	5	6	7	CR
1	Ethics	.983							.994
2	Social Performance	.307	.978						.989
3	Social Personality	.746	.463	.983					.991
4	Social Pride	.686	.585	.889	.975				.990
5	Competence	.743	.384	.936	.894	.980			.990
6	Demeanor	.751	.420	.756	.735	.799	.982		.987
7	Shame	.665	.427	.766	.821	.826	.783	.985	.990

Note: Values along the diagonal values indicate the square root of the AVEs.

Next, the six-factors model (M2) of *chemyeon* was estimated. Even if χ^2 of the model fit did not fit the data with χ^2 (df = 284, N = 525) = 915.42, p = .00, the other non-normed fit indices were acceptable (RMSEA = .065 with a 90% CI = [.060, .070], CFI = .92, SRMR = .057). The factor loadings exceeded the acceptance criterion, ranging from .64 to .83.

In order to assess the convergent validity and the discriminant validity of the six subscales model, average variance extracted (AVE) and composite reliability (CR) was calculated. The six subscales model showed good convergent validity and discriminant validity: AVE was greater than .50, and CR was greater than .70 (Hair et al. 2009). Also, the AVE for each subscale

Table 4. The Results of CFA Using Study 1 Data (6 Factors)

			Estimate			
			B	SE	t	β
1	→	Ethics	1.00	.00	.	.78
2	→		0.96	.05	20.22	.81
3	→		0.80	.05	16.79	.71
4	→		0.84	.05	16.82	.71
5	→		0.89	.05	18.88	.79
6	→		0.81	.05	17.41	.74
7	→	Social performance	1.00	.00	.	.78
8	→		0.97	.05	18.82	.80
9	→		0.87	.06	15.77	.76
10	→		0.70	.05	12.92	.64
11	→	Social personality	1.00	.00	.	.73
12	→		1.12	.06	18.16	.80
13	→		1.15	.07	17.58	.78
14	→		1.02	.06	16.30	.74
15	→	Social pride	1.00	.00	.	.69
16	→		0.89	.06	14.09	.67
17	→		0.92	.06	14.77	.70
18	→		1.02	.07	15.31	.74
19	→		0.94	.06	14.94	.74
20	→	Competence	1.00	.00	.	.74
21	→		1.04	.06	16.99	.76
22	→		0.93	.06	15.77	.72
23	→		0.97	.06	16.50	.74
24	→	Demeanor	1.00	.00	.	.72
25	→		1.18	.07	17.38	.83
26	→		1.18	.07	16.36	.81

Note: N = 525, SE = Standard Error

was larger than the square of the correlation between subscales (Fornell and Larker 1981).

Table 5. Correlations between Latent Variables Using Study 1 Data (6 Factors)

		1	2	3	4	5	6	CR
1	Ethics	.983						.994
2	Social performance	.307	.978					.989
3	Social personality	.746	.462	.983				.991
4	Social pride	.689	.585	.890	.975			.990
5	Competence	.746	.382	.937	.896	.980		.990
6	Demeanor	.747	.424	.754	.739	.797	.982	.988

Note: Values along the diagonal values indicate the square root of the AVEs

There is no big difference between the seven-factor and six-factor models. Thus, the Akaike information criterion (AIC) of the two models was applied to decide which model is better. Since the six-factor model's AIC (AIC = 31161.22) is smaller than the seven-factor model's (AIC = 34659.96), the six-factor model (M2) was selected as a preferred model. The model parsimony principle was also a deciding factor for choosing the six-factors model since the two models showed similar fit indices.

Finalizing the Dimensionality of the Scale in Study 2

In Study 2, the six-factor CFA model (M3) was estimated again to corroborate the six-factor model's validity and reliability using the second survey data. The model's χ^2 was unsatisfactory with χ^2 (df = 284, N = 525) = 1036.57, p = .00. However, non-normed fit indices were acceptable (RMSEA = .079 with a 90% CI = [.073, .084], CFI = .91, SRMR = .052). Overall, the model fitted with the data. All factor loadings exceeded the acceptance criterion.

In order to assess the convergent validity and the discriminant validity of the six subscales model, average variance extracted (AVE) and composite

Table 6. The Results of CFA Using Study 2 Data (6 factors)

			Estimate				M	SD
			B	SE	t	β		
1	→	Ethics	1.00	.00	.	.83	3.34	0.74
2	→		0.91	.05	19.48	.79		
3	→		0.85	.05	17.94	.76		
4	→		0.94	.05	19.32	.81		
5	→		0.99	.05	20.40	.84		
6	→		0.85	.05	18.07	.77		
7	→	Social performance	1.00	.00	.	.74	2.59	0.89
8	→		1.08	.06	16.85	.80		
9	→		1.12	.07	14.98	.85		
10	→		1.08	.08	14.50	.83		
11	→	Social personality	1.00	.00	.	.82	2.99	0.85
12	→		1.00	.05	20.23	.83		
13	→		1.07	.05	20.85	.86		
14	→		0.97	.05	18.68	.80		
15	→	Social pride	1.00	.00	.	.75	2.93	0.78
16	→		1.04	.06	16.43	.77		
17	→		1.06	.06	17.11	.80		
18	→		1.00	.06	16.38	.78		
19	→		0.96	.06	16.29	.78		
20	→	Competence	1.00	.00	.	.72	3.11	0.80
21	→		1.20	.07	16.97	.85		
22	→		1.21	.07	16.57	.84		
23	→		1.18	.07	16.09	.81		
24	→	Demeanor	1.00	.00	.	.75	2.88	0.89
25	→		1.29	.07	18.60	.89		
26	→		1.21	.07	17.07	.85		

Note: N = 525, SE = Standard Error

reliability (CR) were calculated. The six subscales model again showed satisfactory convergent validity. Also, as reported in table 7, the six subscales model indicated good discriminant validity (Fornell and Larker 1981).

Table 7. Correlations between Latent Variables Using Study 2 Data

		1	2	3	4	5	6	CR
1	Ethics	.985						.995
2	Social performance	.294	.983					.991
3	Social personality	.554	.628	.986				.993
4	Social pride	.549	.702	.892	.984			.993
5	Competence	.645	.508	.802	.863	.983		.991
6	Demeanor	.649	.524	.775	.809	.848	.984	.988

Note: Values along the diagonal values indicate the square root of the AVEs.

As specified in RQ 2, *chemyeon* has two broad dimensions that integrate six factors found in previous studies (Kim and Yang 2011b, 2013). To verify this meta-dimensionality, the second order CFA was conducted in two different ways. First, the second order CFA(M4) with one dimension of *chemyeon* was conducted. The model's fit was unsatisfactory with χ^2 (df = 293, N = 525) = 1125.96, p = .00, RMSEA = .081 with a 90% CI = [.076, .086], CFI = .90, SRMR = .062. Overall, this model's fit indices were unacceptable.

Next, the second order CFA (M5) was conducted, with two dimensions of social *chemyeon* and personal *chemyeon*. In general, the model's fit was improved and acceptable with χ^2 (df = 292, N = 525) = 1071.00, p = .00, RMSEA = .079 with a 90% CI = [.074, .084], CFI = .91, SRMR = .057. To test discriminant and convergent validity, AVE and CR of each dimension were calculated. Social *chemyeon* (AVE = .974, CR = .991) and personal *chemyeon* (AVE = .969, CR = .989) indicated satisfactory convergent validity. Also, the model has discriminant validity since the AVE of each dimension is bigger than the square correlations between dimensions although their correlation coefficient is marginal (AVE = .905) (Fornell and Larker 1981). This finding

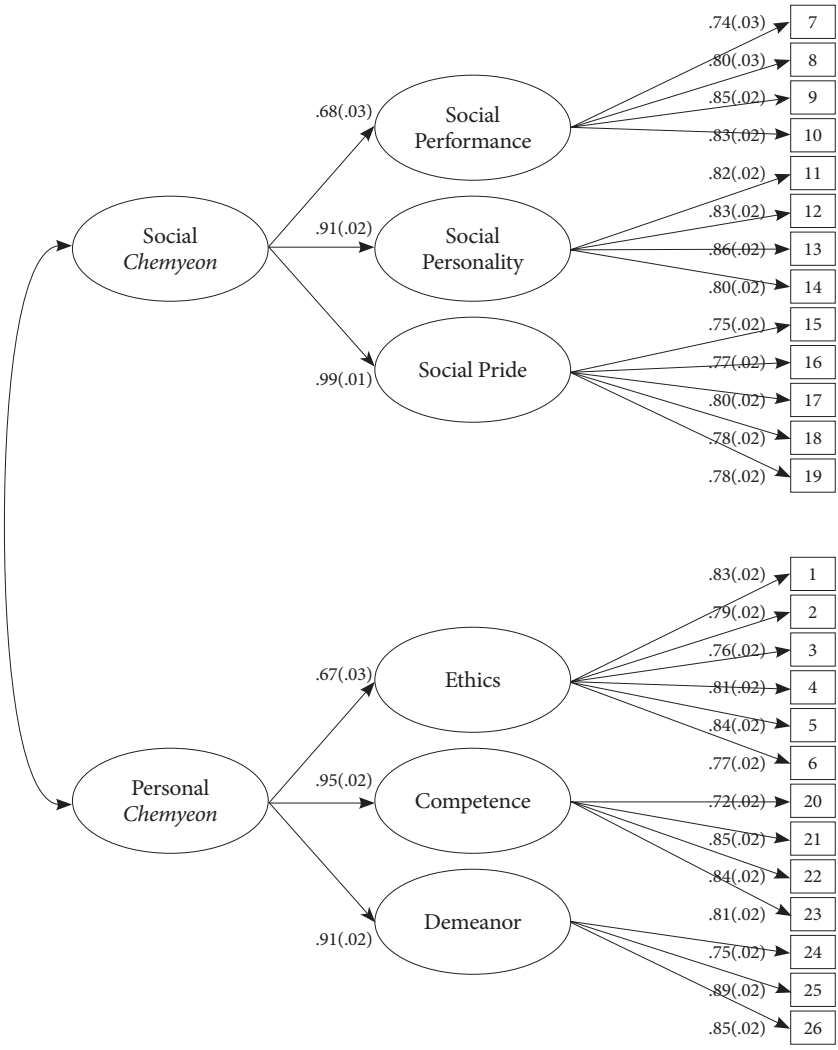

Figure 1. The results of the two dimension model of *chemyeon*

Table 8. The Fit Indices of the One-dimension Model and the Two-dimension Model

	One-dimension model (M4)	Two-dimension model (M5)
χ^2	1125.96 (df = 293, N = 525, p = .00)	1071.00 (df = 292, N = 525, p = .00)
RMSEA	.91 [.076, .086]	.79 [.074, .084]
CFI	.90	.91
SRMR	.062	.057

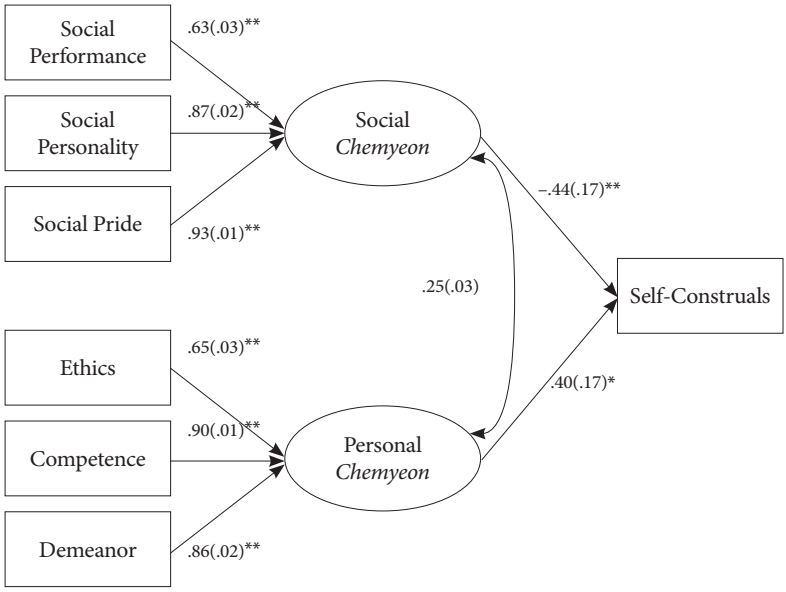

Figure 2. Predictive validity of the *chemyeon* scale (the two-dimension model)

*p < .05, ** p < .01

showed that the model with two dimensions (personal *chemyeon* and social *chemyeon*) has a better fit than the model with one dimension.

The Relationship between Chemyeon *and Self-Construal in Study 2*

In order to assess predictive validity, the finalized *chemyeon* scale's relationship with the self-construal scale was examined in a second survey. The interdependent self-construal dimension was reverse-coded to combine self-construal dimensions. Also, means of self-construal items and six factors of *chemyeon* were calculated to test a structural equation model (SEM). χ^2 of the model was not satisfactory, χ^2 (df = 12, N = 525) = 42.77, p = .00, but the RMSEA, CFI and SRMR values indicate fair fit (RMSEA = .077 with a 90% CI = [.053, .103], CFI = .98, SRMR = .030). In general, the two dimensions turned out to be strong predictors of self-construal. Social *chemyeon* predicted independent self-construal (β = –.44) negatively. Meanwhile, personal *chemyeon* predicted independent self-construal (β = .40) positively. The findings indicate that the finalized *chemyeon* scale has predictive validity.

Discussion

This study aims to validate the scale structure, finalize the scale dimension and test scale validity. This study confirmed the previous claim that *chemyeon* consists of six factors: ethics, competence, demeanor, social performance, social personality, and social pride—since the AIC of the six-factor model was less than the AIC of the seven-factor model.

As researchers have previously suggested (Kim and Yang 2011b, 2015b; Lim and Choi 1996), this study found that the *chemyeon* concept consists of two dimensions: social *chemyeon* and personal *chemyeon*. The result of the two-step CFA supports the claim that the two-dimension model is better than the one-dimension model. The initial one-dimension model's fit indices were unsatisfactory, while the two-dimension model's fit indices met standards that are acceptable. In addition, considering these two models' complexity, the two-dimension model shows a better fit than the one-dimension model that has

additional correlations between measurement errors.

In the results of study 2, social *chemyeon* and personal *chemyeon* were correlated with self-construal differently as predicted in previous literature. The correlation between social *chemyeon* and independent self-construal was negative. However, the correlation between personal *chemyeon* and independent self-construal was positive. This result demonstrates that the finalized *chemyeon* scale has predictive validity. Meanwhile, a possible explanation for this result is that people can gain social *chemyeon* only through comparing themselves with others. This result also implies that people who have a high level of social *chemyeon* can only define themselves under an appropriate social context or with subjects of comparison. On the contrary, people who have a high level of personal *chemyeon* are more likely to recognize themselves on their own, without associating themselves with others.

The results showed that the *chemyeon* scale is multidimensional, rather than unidimensional. This is because social and personal *chemyeon* are not incompatible, bipolar concepts. For example, people can have a high level of social and personal *chemyeon* at the same time, whereas other people can have a high level of social *chemyeon*, but a low level of personal *chemyeon*. This segmentation based on *chemyeon*'s two dimensions can allow various analyses of the relationship between *chemyeon* and communication variables. However, although this study argues that the *chemyeon* scale has two primary dimensions, future study should seek to confirm whether this result can be sustainable. Also, future research should examine how *chemyeon* relates to other constructs such as the face, shame or embarrassment.

Intercultural comparisons using the *chemyeon* scale are encouraged. Future research should apply this *chemyeon* scale to China and Japan, which have similar cultural contexts to South Korea, in order to establish common applications and differences among Confucian countries. Many studies indicate that face is deeply related to culture (e. g. Cocroft and Ting-Toomey 1994; Oetzel et al. 2001), especially in regards to two basic cultural forms: individualism and collectivism. However, this simplification and generalization can be dangerous since people within the same broad culture also vary. People in Eastern Asia must have different face-related concepts. According to the literature, there are a lot of face-related concepts which are similar but different

from one another. Different concepts in Eastern Asia include *chemyeon* in Korea, *mianzi* in China, and *mentsu* in Japan. Thus, understanding these concepts through comparisons helps us to differentiate various face-related concepts and possibly to develop the broader concept of Asian face.

The possibility of applying the *chemyeon* scale in the Western hemisphere should also be explored. Most face-related theories have focused on Western culture (e.g., Arundale 1999; Brown and Levinson 1987; Lim and Bowers 1991). Face-related theories generally deal with specific situations when face is threatened and the strategies that people use to understand how face works and to overcome these situations (e.g., Brown and Levinson 1987; Lim and Bowers 1991; Oetzel et al. 2001; Ting-Toomey and Kurogi 1998; Ting-Toomey, Oetzel, and Yee-Jung 2011). Thus, integrating the *chemyeon* scale with face-related theories can help not only deepen the theoretical implications of face in Western countries but also understand different applications of personal and social face through taking into consideration cultural differences between East and West.

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