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Exploring metapragmatics of politeness lexemes using a computational approach

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Abstract: This study employs a computational method, together with qualitative analysis, to explore the metapragmatics of politeness lexemes that both scholars and laypersons fail to provide effective articulations for. We specifically choose two bewildering politeness lexemes – *kyemson* (‘modesty’) and *kongson* (‘politeness’) – in Korean, and use the computational approach to identify their metapragmatic differences by analyzing over 27,000 texts that feature their usage. Results show that, while *kyemson* is associated with speakers’ personal and interpersonal qualities, *kongson* is manifested in a range of normative semiotic practices. They both feature the concepts of lowering oneself and elevating others, but realize them at different levels. In addition, *kyemson* helps to achieve relational harmony regardless of social hierarchies, and *kongson* reinforces social hierarchies but speaks little of relational harmony. The findings make two important contributions – namely, providing a novel methodology to address the pitfall in analysing first-order and second-order politeness, and offering an insight into the underexplored politeness lexemes in Korean.

Keywords: modesty; humility; topic modeling; Korean; East Asia

1 Introduction

Following the constructivist turn in linguistic studies, politeness has been divided into first-order politeness, which is conceptualized as laypersons’ discursive interpretations of what politeness is and what can be considered polite, and second-order politeness, which is defined as a scientific understanding of this concept (Eelen 2001; Watts et al. 1992). Based on either or both the emic (layperson) or etic

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(scholarly) perspectives, previous studies have surveyed institutional explanations for politeness lexemes (Haugh 2004) and speakers' self-reports (e.g., Fukushima and Sifianou 2017; Obana and Tomoda 1994), contributing invaluable insight into the metapragmatics of politeness lexemes across different cultures. However, a potential pitfall remains when both scholars and laypersons cannot provide effective explanations for a politeness lexeme. For example, Fukushima and Haugh (2014) found that their participants cannot always distinguish the three politeness lexemes that they investigate. Culpeper and Haugh (2021) also noticed the infinite regress issue of definition, that is, defining one politeness lexeme requires the definition of another politeness lexeme. Thus, they propose to identify the metapragmatics of a politeness lexeme by analyzing its co-texts that characterize the construal of the lexeme in contexts (Agha 2004; Firth 1957). They use collocation analysis, which is, however, confined to locations or frequencies of the co-texts in the corpus. The current study employs a more sophisticated computational approach to address both the theoretical and methodological challenges. It delves into the metapragmatics of two politeness lexemes that both scholars and laypersons could not articulate clearly.

The politeness lexemes that this study chooses are *kongson* ('veneration, politeness') and *kyemson* ('modesty, humility') in Korean. While politeness in East Asia has drawn continuous attention in its debates with politeness theories developed in Euro-American contexts (e.g., the debate between volitional and conventional politeness), the diversity of politeness expressions within East Asian languages has scarcely been examined (see Fukushima and Haugh 2014; Haugh 2004 for the few exceptions). The Korean language has especially received a rather disproportional amount of attention in comparison to its rich collection of politeness lexemes (Kim 2011). What seems to even hinder the research on Korean politeness lexemes is the difficulties in elucidating their differences. As Chen and Lee (2021) have noted, even L1 Korean speakers struggled to explain *kyemson* and *kongson* as well as their differences. Nevertheless, they used these lexemes differently and not interchangeably in context. Scholars also use the two lexemes to cross-define each other (Cho 1980; Hong 2020), falling into the infinite regress of definitions that Culpeper and Haugh (2021) called for to avoid. This study chooses the lexemes and applies a novel methodology to:

- (1) provide a computational method for the examination of metapragmatics of politeness lexemes for which both etic and emic explanations fall short;
- (2) provide an insight into Korean politeness lexemes that have not been systematically examined thus far.

In the sections below, we begin by reviewing previous studies on the metapragmatics of politeness lexemes, discussing their methodological approaches and outcomes.

We then move on to an introduction of the two lexemes in Korean by situating them in the broad context of East Asia. We explain the corpus data that we extracted and the computational method that we adopted in Section 4. Findings based on the data analysis are presented in Section 5, followed by a discussion and a conclusion that remark on the contributions of this study, and highlight the working direction for future research.

2 Metapragmatics of politeness lexemes

Metapragmatic underpinnings of politeness lexemes have attracted a great amount of researchers' interest since the divorce between first-order politeness (politeness understood by laypersons) and second-order politeness (politeness as a scientific and analytical concept) (Eelen 2001). We have witnessed that discussions about cultural specificities of politeness shifted from the debate between conventional politeness (emphasized in East Asian contexts; see Gu 1990; Hwang 1990; Ide 1989) and volitional politeness (proposed as universal in Brown and Levinson 1987), and mappings between speech strategies and politeness (e.g., Blum-Kulka 1987; Yu 2011), to the increasing comparisons of metapragmatic understanding of politeness lexemes in different cultures. The investigations into politeness metapragmatics can largely be categorized into three strands by the types of data and analytical methods that they adopted – namely, institutional explanations of politeness lexemes, speakers' reports, and corpus data.

In the first strand, Haugh (2004) drew on dictionary definitions, scholarly interpretations, and dialogical examples to compare English “politeness” to three Japanese lexemes: *teinei*, *reigi tadashii*, and *keii hyoogen*, that had often been translated into politeness. He found that the three lexemes were associated with different social qualities. *Teinei* conveyed the demonstration of warmth and kindness to others, *reigi tadashii* referred to both self-modesty and upward respect for others in accordance with social norms, and *keii hyoogen* fell between the two, featuring both considerations for others and less upward respect. In contrast, English politeness concerns predominantly the demonstration of a polished self-presentation and considerations shown to others. Similarities between English politeness and the three Japanese lexemes were argued at a higher and more abstract level, summarized by Haugh (2004: 105) as “self-oriented politeness” and “other-oriented politeness”. Similar to Haugh's (2004) approach, Terkourafi (2011) analyzed didactic literature that taught politeness in Egypt, India, and China. Gu (1990), who proposed principles for Chinese politeness, based his analysis on historical classics and dialogical examples.

Based on analyses of prescriptive texts, the first strand of research contributed to the understanding of politeness norms, but spoke little of politeness in interactions and discursive interpretations of individuals who may or may not adhere to the norms. The shortcoming gave rise to the second research strand of politeness metapragmatics, which focused more on laypersons' self-reports.

Researchers developed a variety of techniques to collect emic interpretations of politeness lexemes from laypersons, including self-narratives (e.g., Obana and Tomoda 1994), questionnaires (e.g., Fukushima and Sifianou 2017), lexical mapping tasks (e.g., Pizziconi 2007), and metapragmatic interviews (e.g., Fukushima and Haugh 2014). For example, in Pizziconi (2007), lexemes that participants believed to be related to politeness were collected first. Then, the conceptual similarity between politeness and each of these lexemes was evaluated by L1 English and L1 Japanese speakers. The findings pointed out that British politeness was closely related to being "appropriate", "nice", "considerate", and "courteous", while Japanese politeness was more associated with being "respectful", "appropriate", "considerate", and "sincere". The seemingly shared value of "consideration" or being considerate also differs across cultures. By comparing questionnaire answers from Japanese female college students and their Greek counterparts, Fukushima and Sifianou (2017) found that the Greek group paid more attention to egalitarian respect as a way of showing consideration, in contrast to the Japanese group, which showed more empathy. Similarly, using metapragmatic interviews, Fukushima and Haugh (2014) studied attentiveness, empathy, and anticipatory inference in Japanese and Taiwan Chinese. They found that attentiveness was understood in relation to respect and courtesy in Japanese, in comparison to propriety or appropriate behaviors in Chinese. Their finding of propriety in Chinese was supported by Su (2019), who used the same technique to compare politeness understood by mainland Mandarin speakers and Taiwanese Chinese speakers.

Based on the metapragmatic explanations provided by laypersons, these studies have contributed invaluable insight into cultural specifics of the seemingly equivalent politeness lexemes in different languages. However, as Fukushima and Haugh (2014: 177) warned, this approach "only gets us so far when considering the possible relevance of such notions to evaluations of im/politeness". Three main issues hindered the second approach from moving forward, the first being the restriction in sample size and their representativeness. The small number of participants ($n = 40$ in the case of Fukushima and Haugh 2014), may represent only the selected group of the population, especially considering that the selection was not random. The second issue is methodological and analytical constraints. The measurement tools, such as lexical mapping tasks in Pizziconi (2007), reduced the evaluation of politeness to two-dimensional connections between lexemes. The reduction may oversimplify the actual complexity of any single politeness

lexeme. Metapragmatic interviews, albeit being more capable of capturing the complexity, could not address the participants' own confusion. For example, Fukushima and Haugh (2014) found their participants could not distinguish the three lexemes of their investigation – namely, attentiveness, empathy, and anticipatory inference – just as Korean speakers cannot articulate the difference between *kyemson* and *kongson*. The third issue is lack of context, interactional data, and lexemes-in-use. The focus of these studies being on what speakers say about the concept of politeness, poses limitations on understanding what speakers actually do with politeness. As Dunn (2013) criticizes, the investigation of politeness-related lexemes from the metalinguistic approach often relies on decontextualized semantic analysis, which needs to be complemented by considering expressive practices.

A few recent studies, including Culpeper and Haugh (2021) and Oliver (2022), have started to address this issue by investigating politeness-in-use through corpus analysis. Closely related to the methodology of this study, Culpeper and Haugh (2021) analyzed collocations of the term “offensive”, and treated the lexico-grammatical patterns found in its collocations as metalanguage of offence. They compared the metalanguage of British offence to that of Australian English, and found that the British concept of offence has a stronger connection with “abusive”, “insulting”, and “racial” behaviors, in contrast to offence in Australian associated with “inappropriate”, “rude”, and “morally wrong” behaviors.

We should note, however, that collocation analysis only conveys the expressions that occurred right before or after the selected politeness lexeme. In contrast, the co-texts that are relevant to the key politeness lexeme and that are important to describe the context of its usage could occur far beyond the range of collocations. Thus, the corpus analytical techniques have not yet fully explored the potential of analyzing co-texts to explore metapragmatics of politeness lexemes.

Together, the disadvantages of the above-mentioned three analytical approaches have called for more sophisticated methods that can (i) capture a broad range of co-texts, and calculate their importance and relevance to the context where a politeness lexeme is used; (ii) extract reliable patterns from discursive interactions, instead of summarizing prescriptive norms; (iii) include data that are large in size and diverse in contexts to obtain more representative analysis results; (iv) capture the complexity of lexeme construal without reducing the analytical dimensions; and (v) explore politeness lexemes that are actually used in different contexts, while distinguishing them when laypersons and/or scholars have difficulties doing so. In response to the five challenges, the current study adopts a state-of-art topic modeling technique. It allows us to survey more than 10,000 texts where *kyemson* and *kongson* are actually used, analyze co-texts in terms of their importance and relevance, present patterned results from discursive usage of the two lexemes while

maintaining the diversity of interpretations, and most importantly, distinguish the politeness lexemes that laypersons and scholars could not provide effective interpretations for.

3 *Kyemson* and *kongson* in Korean

Kyemson and *kongson* originate from the Chinese lexemes 谦逊 (*qianxun* in the Chinese *pinyin* system) and 恭逊 *gongxun*. They are Sino-Korean, which is a type of loanword that occupies approximately 60 % of the overall Korean vocabulary (Chang 1996). *Kongson* has been widely translated into “politeness” (e.g., Brown 2015; Cho 1980; Hong 2020; Tao et al. 2016) and “veneration” (Chen and Brown 2022). *Kyemson* was translated into “modesty” or “humility” (e.g., Kim and Kim 2004), although Bond et al. (2012) argued that “modesty” was a culturally normative requirement and politeness tactic which does not concern genuinely about humility in Chinese. In the current study, we use modesty and politeness for *kyemson* and *kongson* when a translation is needed. We should, however, emphasize that the study is not focused on the translations of English modesty or politeness, but *kyemson* and *kongson*.

As briefly mentioned at the beginning of the paper, laypersons and researchers have presented rather mixed, cross-defined definitions for the two lexemes. For example, Hong (2020: 87) defined *kongson* (“politeness”) practices as “the act of linguistic expression of *modesty* and propriety”. Cho (1980) claimed that the principle of *kongson* lies with the mind of *kyemson*. In addition, *kongson* was associated with lowering oneself, elevating others, and awareness of face (Kim 1997; Yang 2021) all of which were associated with *kyemson*, too (Kim 2015; Kim and Kim 2004). The indexical relationships between the two lexemes and Korean societal structures were also unclear. From a historical perspective, Lee (2002) argued that *kyemson* was a top-down moral requirement, whereas Kim and Kim (2004) empirically found that *kyemson* was manifested more in equal relationships. *Kongson* appeared to be less controversial in terms of its usage by inferiors to superiors. Nevertheless, the motivation for the inferior to do so was argued to be mitigating the psychological burden of the superior by Lee (1996), in contrast to Jung (2014) who considered that the inferiors had no choice.

Tao et al. (2016) presented one of the few metapragmatic studies on *kongson* in Korean and compared it to *limao* in Chinese and *teinei* in Japanese. The three are all Sino-words that have often been translated into politeness. However, they are not cognates and are written differently and used differently in Chinese. Tao et al. (2016) asked their L1 Korean participants to illustrate the social qualities that they imagined when hearing *kongson*. Based on the metapragmatic reports from 100 participants,

they interpreted *kongson* as polite behavior, ways of speaking, courtesy, manners, being refined and cultivated, good image, good breeding, hierarchical relationship, personal relationship, and friendliness.

To the best of our knowledge, there have not been any metapragmatic studies of *kyemson* ('modesty'). As a point of comparison, its Chinese cognates, *qianxu* and *qianxun*, were found to be a moral virtue and an important interpersonal tactic in Chinese (Bond et al. 2012; Xiong et al. 2018). Shi et al. (2021) categorized the social traits of a modest Chinese person into 34 indicators. The central ones include low-key, politeness, friendliness, humility, easygoing, sincerity, stability, and prudence. Gu (1990) and Zhou and Zhang (2018) proposed modesty as one of the core values of Chinese politeness and paired it with respectfulness. Zhou and Zhang (2018) argued that modesty in Chinese is practiced by self-effacement, in particular when the interlocutors "are more highly ranked on various types of hierarchical scales than others" (Haugh et al. 2015: 81). In short, there has not been any systematic understanding of *kongson* and *kyemson* not only in terms of their definitions, but also the contexts of their usage and their metapragmatics, rendering the current study a necessity.

In Korean, *kyemson* and *kongson* function as nouns, in contrast to their Chinese cognates being adjectives. They are compounded with *-hata* ('to do') to form adjectives *kyemson-hata* ('be modest') and *kongson-hata* ('be polite'). *-ta* is the verb ending suffix, which can be replaced by other conjugations – for example, *kyemson-han* ('modest' as a modification), *kongson-ha-key/kongson-hi* ('politely'). These lexical variations have been taken into consideration when extracting our data.

4 Methods¹

4.1 Corpus creation

This study drew on corpus data. We first extracted long texts featuring the usage of the two lexemes from the representative, large-scale Korean corpus *Everyone's Corpus*, provided by the National Institute of Korean Language in South Korea.² The written corpus (National Institute of Korean Language 2020: version 1.0) comprised 26,509,659 lexemes sourced from a total of 20,188 newspapers, magazines, and books spanning from 2004 to 2017. The spoken corpus (National Institute of Korean

¹ The dataset and Python code can be found here: https://osf.io/xu6j8/?view_only=1895c73a3b-764e5c85411b827baa0927.

² See the following for details: <https://kli.korean.go.kr/corpus/main/requestMain.do>.

Language 2021: version 1.1) encompassed 5,008,399 lexemes from 25,696 items sourced from three genres (formal monologue, formal conversation, play script) from 2004 to 2018. Using the entire corpus datasets, we initially extracted raw texts containing the two lexemes automatically via *Python* programming. Our search included both nominal and adjectival forms as well as their conjugations to ensure comprehensive coverage (see Section 3). The texts were then manually inspected to ensure the quality of these automatic extraction outcomes. During the inspection, we (i) excluded incomplete sentences, (ii) removed symbols, notations, and characters which were unrelated to sentence meanings/interpretations, and (iii) excluded instances of *kongson* used as the name (公孫 *gongsun*). *Kongson* is a homonym, with the same spelling and sounds but different origins and meanings for names and politeness. Over the inspection, we retained only the *kongson* (and its variations) that originated from the Sino-word 恭遜 *gongxun* ('politeness'). Any disagreements regarding inclusion/exclusion were resolved by reviewing individual cases. Finally, we obtained 18,236 sentences for *kyemson* ('modesty') and 9,718 sentences for *kongson* ('politeness').

4.2 Data analysis

We analyzed the two sub-corpora by employing a recently proposed, cutting-edge topic-modelling technique, *BERTopic*³ (Grootendorst 2022), together with qualitative analysis. Topic modeling techniques are designed to identify expressions that characterize a document (Vayansky and Kumar 2020). An analogy to this technique could be the practice of a researcher highlighting relevant words and sentences when reading a paper. Unlike collocation analysis that only “highlights” words before or after a keyword, *BERTopic* is able to “highlight” any expressions in a text according to their relevance to the document. *BERTopic* uses an advanced algorithm for topic modelling that harnesses the power of BERT (Bidirectional Encoder Representations from Transformers) (Devlin et al. 2019), a state-of-the-art model for natural language understanding (in contrast to natural language generation models like GPT). The data processing of *BERTopic* included several steps. In the first step, the model “read” each of the input texts and calculated their semantic similarities. It then grouped the semantic similar ones into one cluster – for example, *kyemson* used for describing one’s personal characters (see Section 5.2). The next step was then calculating the likelihood for each lexeme to occur within the cluster, using a class-based Term Frequency-Inverse Document Frequency (TF-IDF). The technique not only considers the frequency of each expression, but also its level of uniqueness

³ More instructions for *BERTopic* can be found here: <https://github.com/MaartenGr/BERTopic>.

across multiple texts in one cluster. For example, when describing “NLP”, the expression “computer” may be very frequent, but speaks only generally of this topic. “Speech-to-text” may be more specific but less frequent. TF-IDF looks for a balance between the frequency and specificity of an expression in relation to a topic. Based on the probability distribution of all lexemes in clusters, BERTopic provided researchers with representative topics and expressions. These terms offer valuable insights into the thematic content of each topic, facilitating researchers’ comprehension and analysis of the findings. For example, we outputted the first three topics that showed the strongest associations with *kyemson* (‘modesty’) and *kongson* (‘politeness’), respectively. Each topic contained twenty representative expressions. To further moderate the weight that TF-IDF assigned to unique expressions (i.e., unique words may be given too much importance), we also manually confirmed the frequency of each topic expression. In this process, we excluded several morphological patterns (e.g., *-eykey* ‘to’), which contributed little to the propositional meaning of co-texts, and context-specific words (e.g., *kyengpiyeng* ‘guard soldiers’), the occurrence of which was restricted to one or two specific source texts. Excluding the latter type ensured our goal of identifying the common-sense understanding of *kyemson* (‘modesty’) and *kongson* (‘politeness’).

BERTopic provides effective solutions for the methodological challenges listed at the end of Section 2. First of all, BERT processes 512 tokens for each text and thus provides sufficient capability of “reading” long texts than collocations used in previous studies (e.g., Culpeper and Haugh 2021). It attends to each of the lexemes within the 512-token window, no matter whether it is close to or distant from the keywords, and then calculates their importance in relevant topics. Therefore, BERTopic addresses the challenge of handling a broad range of co-texts. BERT is also effective in reflecting diverse context-dependent meanings. That is, each lexeme receives its own vector representations based on the context where it is used, and the same lexeme may have different vector representations in different contexts. The context-based approach allows BERTopic to “construe” the keywords in the diversity of texts and present the complexity of their metapragmatics in its output. Additionally, BERTopic autonomously determines the optimal number of topics present in the data. This adaptive feature obviates the need for manual adjustments, ensuring comprehensive topic coverage. It also employs robust clustering algorithms, such as HDBSCAN, to discern meaningful clusters even amidst noisy or ambiguous data. This resilience is vital for navigating real-world text datasets, which often exhibit diverse linguistic patterns and variations. Owing to its capabilities, BERTopic has gained widespread adoption in various domains, including the analysis of political stances (e.g., Ebeling et al. 2022 on vaccination attitudes), group interests (e.g., Zankadi et al. 2023 on topical interests of learners), and online feedback concerning specific topics (e.g., Šćepanović et al. 2023 on employees’ reflections on stress).

The quantitative patterns found in the output of BERTopic were further examined using qualitative analysis to reveal the specific relationships that each representative expression has with the two keywords, *kyemson* ('modesty') and *kongson* ('politeness'). We specifically searched example texts that contained the topic expressions found in the quantitative analysis and examined their syntactic, semantic, and pragmatic connections with the keywords by the topics that they belonged to. For example, the comitative particle -과 *kwa* 'and (for connecting nouns)' used between *kyemson* and a topic expression indicated their cooccurrence in parallel (see Example 1a in Section 5.2). The cooccurrences between multiple topic expressions and the keywords, such as *kongson* and a range of body moves (e.g., bowing, gathering one's hands), were also included in the analysis.

5 Findings

5.1 Quantitative overview

Table 1 presents the three topics that showed the strongest association with *kyemson* (0.701–0.724) and *kongson* (0.806–0.858). *Kyemson* ('modesty') and *kongson* ('politeness') demonstrated saliently different sets of topic expressions, with 태도 *thayto* 'attitude' being the only one that they shared. Nevertheless, *thayto* 'attitude' showed a much higher probability to co-occur with *kongson* ('politeness') than with *kyemson* ('modesty'). The probabilities of *thayto* were 0.039 in Topic 1 and 0.11 in Topic 3 of *kongson*, in contrast to 0.013 in Topic 1 of *kyemson*.

In *kyemson*, Topic 1 and Topic 2 presented a variety of descriptions of personal or interpersonal qualities, such as 친절 *chincel* ('friendliness'), 솔직 *solcik* ('frankness'), 소박 *sopak* ('simplicity'), 귀엽- *kwiyeop-* ('cute'), 온순 *onswun* ('gentleness'), 의젓 *uyces* ('maturity') in Topic 1, and 자신감 *casinkam* ('self-confidence'), 신뢰 *sinloy* ('trust'), 책임감 *chaykimkam* ('sense of responsibility'), 안심 *ansim* ('[the feeling of] being reassured') in Topic 2. A closer examination showed, however, that the social qualities listed in Topic 2 were the consequences arising from practicing *kyemson* (see Section 5.2). For example, sharing one's glory in a humble manner can make his/her colleagues feel *ansim* ('reassured') (겸손한 태도로 영광을 나누어 갖는다면 동료들을 안심시킬 수 있다, 'if you share your glory humbly, it will make your colleagues feel reassured'). Topic 3, on the other hand, included a list of abstract social behaviors, such as 낮추- *nacchwu-* ('to lower'), 높이- *nophi-* ('to elevate'), 존중 *concwung* ('respect'), 존경 *conkyeng* ('admiration'), 겸양 *kyemyang* ('yielding'), 간접 *kancep* ('indirectness'), with the same person deixis, 자신/자기 *casin/caki* ('oneself') and 상대/상대방 *sangtay/sangtaypang* ('counterpart'), repeatedly included. Together, they formulated the practice of lowering oneself and respecting others (see

Table 1: Topic expressions in three topics of *kyemson* and *kongson*.

<i>Kyemson</i> (modesty)			<i>Kongson</i> (politeness)		
Topic 1	Topic 2	Topic 3	Topic 1	Topic 2	Topic 3
(0.7243275561794122)	(0.7057271985632154)	(0.7017345882107116)	(0.8577007264595982)	(0.8245715318178302)	(0.806302607418059)
‘친절’, ‘kindness’ 0.0229),	‘자신감’, ‘self-confi- dence’ 0.1572),	‘상대’, ‘counterpart’ 0.06),	‘고개’, ‘head’ 0.0781),	‘모으’, ‘to gather’ 0.1443),	‘태도’, ‘attitude’ 0.1087),
‘솔직’, ‘frankness’ 0.0203),	‘신뢰’, ‘trust’ 0.046),	‘낮추’, ‘to lower’ 0.0388),	‘속이’, ‘to bow’ 0.0554),	‘으로’, ‘with’ 0.0763),	‘느낌’, ‘feeling’ 0.0719),
‘무례’, ‘rudeness’ 0.0173),	‘사귀’, ‘to socialise’ 0.0163),	‘상대방’, ‘counterpart’ 0.0377),	‘말투’, ‘way of speaking’ 0.0473),	‘내밀’, ‘to offer’ 0.0505),	‘말투’, ‘way of speaking’ 0.0327),
‘소박’, ‘simplicity’ 0.0162),	‘지나치’, ‘to be exces- sive’ 0.0161),	‘존중’, ‘respect’ 0.0344),	‘맞이’, ‘to greet’ 0.0451),	‘모아’, ‘conjugation of 모 으’, ‘to gather’ 0.0449),	
‘귀엽’, ‘cute’, 0.0155),	‘책임감’, ‘sense of re- sponsibility’ 0.0128),	‘존경’, ‘admiration’ 0.0252),	‘태도’, ‘attitude’ 0.039),	‘가지런’, ‘neatly’ 0.0357),	
0.0128),	‘행복’, ‘happiness’ 0.0127),	‘높이’, ‘to elevate’ 0.0251),	‘습니다’, ‘deferential formal sentence ending’ 0.0366),	‘양손’, ‘both hands’ 0.0342),	
‘온순’, ‘gentleness’ 0.0127),	‘차분’, ‘calmness’ 0.0102),	‘겸양’, ‘yielding’ 0.0175),	‘상체’, ‘upper body’ 0.0332),	‘악수’, ‘handshake’ 0.0332),	
‘지혜’, ‘wisdom’ 0.0127),	‘안심’, ‘relief’ 0.0098),	‘긍정’, ‘positivity’ 0.016),	‘일어나’, ‘to rise’ 0.0292),	‘합장’, ‘bringing the palms together’ 0.0308),	
‘의젓’, ‘maturity’, ‘well- mannered’ 0.0109),	‘신뢰감’, ‘trustworthi- ness’ 0.0098),	‘간접’, ‘indirectness’ 0.0159),	‘아우’, ‘younger brother’ 0.0288),	‘맞잡’, ‘to hold together’ 0.0258),	
‘부른다’, ‘to cause’ 0.0109),	‘가치’, ‘value’ 0.0097)	‘자세’, ‘posture’ 0.0148),	‘형님’, ‘honorific address of older brother’ 0.0288),	‘허리’, ‘waist’ 0.0243),	
‘정직’, ‘honesty’ 0.0108),		‘표현’, ‘expression’ 0.0129),		‘속이’, ‘to bow’ 0.0239),	

Table 1: (continued)

(‘관계’, ‘relationship’ 0.0124), (‘자신’, ‘oneself’ 0.0117), (‘보이’, ‘to be seen’ 0.0116),	(‘올리’, ‘to present’ 0.023), (‘ 마주’, ‘facing each other’ 0.0229), (‘무릎’, ‘knees’ 0.0222), (‘건너네’, ‘to pass’ 0.0219), (‘꺼내’, ‘to take out’ 0.0206)
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Bold values are the likelihood that the cluster appears with modesty/politeness.

Section 5.2). The topic also contained 관계 *kwankyey* ('relationship') and 보이- *poi-* ('to be seen'), indicating the link that *kyemson* has with interpersonal relationships and other-oriented perspectives.

In *kongson* ('politeness'), Topics 1 and 2 presented a variety of semiotic practices, such as 고개 숙임 *kokay swukim* ('head bowing'), 일어나- *ilena-* ('to rise'), 양손 모음 *yangson moum* ('hands gathering'), 악수 *akswu* ('handshake'), 합장 *hapcang* ('bringing the palms together'), 허리 (굽임) *heli (kwupim)* ('bending over at the waist'), and honorific linguistic forms, i.e., 형님 *hyengnim* ('honorific address of older brother'), -습니다 *-supnita* ('deferential formal sentence ending'). Topic 3 was led by 태도 *thayto* ('attitude'), followed by 느낌 *nukkim* ('feeling') and 말투 *malthwu* ('ways of speaking'). *Malthwu* ('ways of speaking') seemed to echo the honorific linguistic forms included in Topic 1. *Thayto* ('attitude') and *nukkim* ('feeling') were found to be associated with the above semiotic practices (see Section 5.3).

5.2 Understanding *kyemson*

As demonstrated in the above Table 1, the highest probable expressions in Topic 1 of *kyemson* were 친절 *chincel* ('friendliness'), 솔직 *solcik* ('frankness'), 소박 *sopak* ('simplicity') and 무례 *mulyey* ('rudeness'). Modest persons are often described as having the first three as their personal characteristics, as shown in Example (1).

- Example (1)
- a. 기본적으로 대부분의 스포츠 영웅들은 친절함과 겸손한 인상을 가지고 있으며, 이들은 어린이나 청소년 그리고 자신의 행동을 따라 하려는 사람들을 위한 역할모델이 되고 있다.
'Generally, most sports heroes give off a **friendly and kyemson-han (modest)** impression, and they have become role models for children, teenagers and anyone who would like to imitate their behavior.'
 - b. 두 분은 조선의 전체 문학계에서 명성이 높은 작가들이었으나 평시 몹시 겸손하고 소박한 인간들이었다.
'Both were highly renowned writers in Joseon literati but were extremely **kyemson-ha (modest) and simple** in their daily lives.'
 - c. 많은 사람들을 만나고 많은 업무를 하던 그녀였지만, 항상 초심을 잊지 않고 냉철한 머리와 뜨거운 가슴, 그리고 공부하는 자세를 버리지 않았기에 자신이 모르는 것에 대해서 솔직히 인정하고 다른 사람에게 가르침을 요청하는 겸손한 태도를 잃지 않았다.

‘She met and worked with many people but has never forgotten her initial enthusiasm. She has kept a cool head and a warm heart without abandoning her posture to learn. She did not lose her **kyemson-han (modest)** attitude by admitting **frankly** what she does not know and asking for advice from others.’

In Example (1a), 친절함 *chincelham* (‘friendliness’) was used together with “modest impression” to describe sports heroes. These two descriptions were connected by a comitative particle -과 *kwa* ‘and (for connecting nouns)’, indicating their concurrence. Their “inseparable” relationships were also described arbitrarily by another sentence in our dataset as 겸손하지 못하면 친절할 수 없고, 친절하지 않으면 겸손해질 수가 없다 (‘If not being modest, you are not being friendly and vice versa’). Similarly, the verb base 소박하- *sopakha-* (‘simple’) was connected to “modest” using an additional ending -고 *ko* ‘and (for connecting verbs)’ (Example 1b), listing them as the character of two renowned writers in the Joseon dynasty. 솔직 *solcik* (‘frankness’) was used to describe one’s honesty about his/her own shortcomings. Such honesty was also considered to be a form of modesty, as demonstrated by Example (1c).

In between these positive descriptions of one’s personality, a third topic expression 무례 *mulyey* (‘rudeness’) appeared to be an alien. Scrutinizing the data showed that it was not that a modest person tended to be rude, but rather the avoidance of 무례 (‘rudeness’) was juxtaposed with *kyemson* as the “do” and “don’t”. For example, 항상 겸손하고, 어떤 경우에도 무례하게 굴지 마라 (‘Stay modest at all times and never be rude in any occasions’). This finding has extended the existing view of rudeness that has often been related to, but not as exact opposite of, politeness (Watts 2008). In the Korean context, it seems that modesty provides another avenue for evaluating rudeness.

In Topic 2, the top expressions were 자신감 *casinkam* (‘self-confidence’), 신뢰 *sinloy* (‘trust’), and 사귀- *sakwi-* (‘to socialize’), followed by 지나치- *cinachi-* (‘to be excessive’). They appeared to be the social consequence arising from practicing *kyemson*, which can be seen in Example (2).

- Example (2) a. 반면에 지나치게 진지하거나 겸손한 모습은 시청자에게 자신감이 부족한 것으로 비칠 수도 있다.
 ‘On the other hand, being overly serious or overly **kyemson-han (modest)** may lead you to look like you are lacking **confidence** to the viewers.’
- b. 거칠고 사나운 정치세계에서 결속을 이루어내면서 기성 남성 정치인에게 보기 어려운 담백한 매력과 겸손한 권력으로 국민들에게 신뢰를 보여줬다.

‘She built solidarity in this tough and fierce political environment and gained people’s **trust** with plain charm and *kyemson-han* (**modest**) power which male politicians have rarely shown.’

Example (2a) maintained that overly practicing *kyemson* would result in an impression of one lacking confidence. Example (2b) described that a politician gained trust from practicing *kyemson-han* (‘modest’) power to the populace. The social recognition was obviously realized over interpersonal activities. It is thus not a surprise that 사귀- *sakwi*- (‘to socialize’) was the third popular topic expression.

In Topic 3, *kyemson* co-occurred with expressions of self-effacement and other-enhancement, including 자신(을) 낮추(다) *casin(ul) nacchwu(ta)* (‘lowering oneself’) and 상대방(을) 높이(다)/존중 *sangtaypang(ul) nophi(ta)/concwung* (‘elevating/respecting the other’). They formed the social practices to achieve a modest heart, *kyemson-han maum*, 겸손한 마음, seen in Example (3).

Example (3) a. 겸손한 마음이란 곧 자신을 낮추고 남을 높이는 것이니, 이것이야말로 외식업에 종사하는 나로서는 항상 잊지 말아야 할 덕목 아닌가.

‘The so-called *kyemson-han* (**modest**) heart is that you **lower yourself and elevate others**, so isn’t it the virtue that I, as a person who works in the food service industry, should never forget.’

b. 평소에 시간날 때마다 남을 존중하고 스스로를 낮추는 겸손한 마음을 훈련하고 생각하라.

‘Whenever you have time, you should think about training yourself for having a *kyemson-han* (**modest**) heart of **respecting others and lowering yourself**.’

Example (3a) used a defining connective -이란 *ilan* (lit: ‘the so-called...’) to ascribe the lowering/elevating practices to the heart of modesty. Example (3b) further showed that the mindset of *kyemson* and its practices can be trained, although the training or the specific embodiment of the idea of lowering oneself and elevating others was not provided anywhere in the dataset. It thus seems that the practices of *kyemson* are largely at the abstract, attitudinal level, or in the Korean term, *maum* (‘heart’).

관계 (‘relationship’) was another topic expression in Topic 3 of *kyemson*. As Example (4) shows, *kyemson* was one of the essential strategies for managing interpersonal relationships, (대인관계 *tayinkwankyey*, seen in Example 4a), business relationships (비즈니스 관계 *picinisu kwankyey*, seen in Example 4b), and even international relations (Example 4c).

- Example (4) a. 자원봉사활동은 감사하는 마음과 기쁨으로 시작하고, **대인관계**에 있어서는 **겸손**하며, 서로간에 감사와 기쁨 그리고 보람으로 마칠 수 있도록 노력한다.
 ‘Volunteer activities start with gratitude and joy, **be kyemson-ha (modest) in interpersonal relationships**, and strive to end with gratitude, joy and reward for each other.’
- b. 일을 하면서 **인간관계**가 꼬일 때면 나는 많은 사람들에게 **친절**하고 **겸손**했던 그 분의 얼굴을 떠올린다.
 ‘When an **interpersonal relationship at work** goes wrong, I recall the person who was **kind and kyemson-ha (modest)** to a lot of people.’
- c. **중·일 관계** 정상화 과정에서도 **겸손**한 태도로 깊은 인상을 남기기도 했다.
 ‘(S/he) also left a deep impression with her/his **kyemson-han (modest)** attitude in the process of normalizing **China-Japan relations**.’

Interestingly, *kyemson*, as a contributor to relational management, was not sensitive to social hierarchy. Despite the fact that hierarchical relationships are encoded and often mediated morphologically, lexically, and syntactically in Korean, such as honorifics and the contrast of *윗사람 wissalam* (‘superiors’, lit: ‘people above’) and *아랫사람 alayssalam* (‘inferiors’, lit: ‘people beneath’), *kyemson* was employed indiscriminately by people of various statuses. Even speakers of higher status, such as seniors at work, elders, and knowledgeable professionals, may need *kyemson* in their relationships with others of lower status (see Example 5).

- Example (5) a. 오늘 저는 **대표**님의 **겸손**한 태도에서 우리나라 한우시장의 밝은 미래를 보았습니다.
 ‘Today, I saw a bright future for the Korean beef market from the **CEO (honorific address)’s kyemson-han (modest)** attitude.’
- b. 모든 **직원**에게 일정한 거리를 두고, 동일하게 친절하고, 공정하며, **겸손**하게 행동하라.
 ‘Maintain a distance from all **employees**, be equally friendly, be fair and act **kyemson-ha-key (modestly)**.’

In Example (5a), the speaker addressed the referent as *대표님 tayphyo-nim* (‘CEO-honorific suffix’) and used the deferential formal ending *-습니다 -supnita*. They indicate that the speaker was lower in social status than the CEO. The CEO adopted a modest attitude, which showed the speaker the prospect of the future market. Example (5b) instructed one to be modest to all employees, together with friendliness and fairness. This indiscriminate behavioral code illustrates that

kyemson ('modesty') in Korean may be an egalitarian concept rather than an upward one. It is relationship-sensitive but not hierarchy-sensitive.

In summary, *kyemson* ('modesty') in Korean is closely associated with personal characteristics, such as friendliness, simplicity, and honesty about one's shortcomings. Acting modestly helps one to gain certain social recognitions, including both positive ones, such as trust, and negative ones, such as lack of confidence. It is practiced by lowering oneself and elevating others in Korean, the embodiment of which is unclear. *Kyemson* is an effective strategy to manage social relationships in Korean but is less responsive to social hierarchies.

5.3 Understanding *kongson*

Different from *kyemson*, the topic expressions of *kongson* ('politeness') included a collection of semiotic behaviors. Topic 1 presented upper body movements and linguistic honorifics, e.g., 고개 *kokay* ('head'), 상체 *sangchey* ('upper body'), 말투 *malthwu* ('way of speaking'), and Topic 2 included hand movements, e.g., 양손 *yangson* ('both hands'), 악수 *akswu* ('handshake'), 합장 *hapchang* ('bringing the palms together'). They shared a common movement 숙이- *swuki*- ('to bow'). Qualitative analysis showed that these embodied practices often co-occurred and collectively contributed to the demonstration of *kongson*, as can be seen in Example (6).

- Example (6) a. 그리고는 이내 두 사람 똑같이 의자에서 벌떡 일어나 아주 공손한 모습으로 두 손을 모아 합장을 하면서 가볍게 고개를 숙여 보았다.
 'And then, both **sprung up** from their chairs, **put their palms together**, and **bowed their heads** slightly to show a very ***kongson-han* (polite) image.**'
- b. 박 이사는 엉거주춤 자리에서 일어나 45도로 상체를 숙인 채 두 손으로 공손히 와인 잔을 잡고 사장이 주는 술을 받고 있다.
 'Director Park stood up from his/her seat awkwardly, **bowed his/her upper body** at a 45-degree angle, holding a wine glass ***kongson-hi* (politely)** with **both hands** while accepting the drink the president gave him/her.'

In Example (6a), the image of *kongson* (공손한 모습 *kongson-han mosup*) was portrayed by the two people "standing up", "gathering their hands" and "bowing their heads". Similarly in Example (6b), what characterized holding the wine glass *kongson-hi* ('politely') was the person's behaviors of "standing up", "bowing upper body at a 45 degree" and "holding with both hands". These *kongson* practices also

applied to other actions, such as 내밀- *naymil*- ('to offer'), 건네- *kenney*- ('to pass'), 꺼내- *kkenay*- ('to take out') and (인사/절) 올리- (*insa/cel*) *olli*- ('to present bowing').

In addition, *kongson* was realized verbally in Korean, defined as polite ways of speaking (공손한 말투 *kongson-han malthu* Example 7a). The term *malthu* ('ways of speaking') appeared repeatedly in Topics 1 and 3 of *kongson*. In Topic 1, the honorific address term, i.e., 형님 *hyengnim* ('honorific address of older brother'), and the deferential sentence ending -습니다 *-supnita* on the list exemplify the *kongson* ways of speaking. At the same time, *kongson* was also manifested in other modalities, such as 어조 *eco* ('tone of voice') and 억양 *ekyang* ('intonation'), seen in Examples 7b and 7c.

- Example (7) a. 어른에게 공손한 말투를 쓰면 좋겠다고 느끼게 하는 책으로 《코끼리와 버릇없는 아기가 있습니다.
'The book *Elephant and the ill-mannered baby* makes (children) realize that it is good to use a ***kongson-han (polite) way of speaking*** to elders.'
- b. 그러나 공손한 어조로 이렇게 대답하는 것이었다.
'However, s/he answered in a ***kongson-han (polite) tone of voice***.'
- c. 상승조의 억양이 공손하고 친근한 느낌을 주는 것은 분명하다.
'Raising the pitch in your intonation surely gives a ***kongson-ha (polite)*** and intimate feeling.'

태도 *thayto* ('attitude') was the top expression in Topic 3 of *kongson*, followed by 느낌 *nukkim* ('feeling'). When co-occurring with *kongson*, they were used both to describe specific kinds of attitudes or feelings that are brought about by the practices of *kongson*, and to demonstrate the attitudes/feelings of *kongson* itself, which can be seen in Example (8).

- Example (8) a. 물건을 두 손으로 공손히 받는 것은 보기에도 상대방을 기분 좋게 해 주는 태도이다.
'Receiving an item **with both hands *kongson-hi (politely)*** is an **attitude** that makes the other person feel good.'
- b. 유채에게 공손히 머리를 숙이는 모습에서 사츠코에겐 이번 일 자리가 반드시 필요하다는 느낌이 들었다.
'**Bowing her head *kongson-hi (politely)*** to Yuchae gives a **feeling** that Sachiko desperately needs this job.'
- c. 도현은 고개를 들지 못한 채 공손한 태도로 대답을 했다.
'Dohyun answered with a ***kongson-han (polite)*** attitude as if s/he **could not raise his/her head**.'

- d. 그 말투에 공손하지 못한 느낌은 조금도 없었다.
 ‘There was not even the slightest **feeling of not being kongson-ha (polite)** in that **way of speaking.**’

In Example (8a), the *kongson* practice of accepting an item with two hands was seen as showing an attitude that makes the other feel good. Similarly, in Example (8b), the *kongson* practice of bowing one’s head delivered the feeling that this person wants the job desperately. Furthermore, Examples (8c) and (8d) used *kongson-han* (‘polite’) to modify attitude and feeling directly – namely, polite attitude and polite feeling. They are associated with *kongson* practices, such as ‘not raising his/her head’ (Example 8c) and the way of speaking (Example 8d). Therefore, it may be the case that *kongson* manifests in two layers: as an attitude at the abstract level, and as practices at the concrete level, and the two layers interact.

Unlike *kyemson* (‘modesty’), *kongson* (‘politeness’) did not have 관계 *kwankyey* (‘relationship’) in its topics. Instead, it seemed to feature a great extent of upward directionality. Namely, the *kongson* practices were primarily adopted by speakers of lower status to those of higher status, or by service providers to customers. For example, 박 이사 *Park isa* (‘Director Park’) in Example (6b) needed to stand up, bow his/her upper body, and hold the wine glass with two hands to show *kongson* when 사장 *sacang* (‘president’) poured him/her a drink. These obedient social practices made it hard to judge whether the director and the president had a rapport relationship. It is highly probable that, even if they did not, the director would still have to practice the same level of *kongson* to the president. Age seniors are also categorized as superior in Korea. Thus, the book mentioned in Example (7a) was recommended by the speaker because it teaches how to use polite ways of speaking to 어른 *elun* (‘elders’). The asymmetrical adoption of *kongson* by inferiors to superiors indicates that the use and understanding of this lexeme may be more sensitive to social hierarchy, in comparison to *kyemson*, which is conceptually more egalitarian.

In summary, *kongson* (‘politeness’) is translated into a range of semiotic practices, including bowing, standing, and giving/receiving with two hands. It also entails specific ways of speaking, which include both word choice and paralinguistic features. By adopting these practices, one may convey attitudes and feelings of *kongson* to the other, and the other who receives *kongson* (‘politeness’) is normally higher in social status than the speaker. Therefore, in comparison to *kyemson* (‘modesty’), *kongson* has a greater level of sensitivity to social hierarchy.

6 Discussion

The interdisciplinary methodologies used in this study have effectively differentiated the two bewildering politeness lexemes: *kyemson* and *kongson*. Specifically, *kyemson* is associated with personal qualities that one needs in managing a rapport relationship, regardless of their position in the structural hierarchy. The finding explains why *kyemson* was previously observed in both symmetrical and asymmetrical relationships (Kim 2015; Kim and Kim 2004). In contrast, *kongson* is related to a rather normalized set of embodied movements, including hand moves, bowing, and the way of speaking. They are sensitive to the social hierarchy and are primarily adopted by inferiors to superiors. This finding largely agrees with existing conclusions about the contexts where *kongson* should be used (Hong 2020; Kim 1997).

It was previously unclear which of *kongson* and *kyemson* was manifested by lowering oneself and elevating others (Kim 1997, 2015; Kim and Kim 2004; Yang 2021). The current findings clarified the nuanced differences – that is, *kyemson* is associated with lowering oneself and elevating others at an abstract and largely attitudinal level, whereas *kongson* presents concrete practices of lowering oneself and elevating others, such as bowing. Both seem to align with Haugh’s (2004: 105) categorization of “self-oriented politeness” and “other-oriented politeness” wherein “one does not think too highly of oneself” and “one thinks well of others”, respectively. However, we may argue that the semiotically lowering and elevating practices of *kongson* (‘politeness’) appear to be more “politic” (Watts et al. 1992) than actually thinking well of others. As found in Section 5.3, inferiors practice *kongson* to their superiors, with little demonstration of the quality of their relationships. In this sense, *kongson*, translated into politeness, pertains to conventional politeness or discernment-driven politeness that observes the social status of a speaker instead of face needs (Hwang 1990; Ide 1989).

In terms of metapragmatics, one common aspect between *kongson* (‘politeness’) and politeness lexemes in English and Japanese is their association with appropriateness (Fukushima and Haugh 2014; Pizziconi 2007). The semiotic practices of *kongson* are deemed to be appropriate when addressing a hierarchical superior, as substantiated in Examples (6b) and (7a). If Lee (1996) was correct about the psychological motivation for practicing *kongson* – namely, to mitigate the superior’s psychological burden, *kongson* also shares the quality of “showing consideration for others” with English and Japanese politeness (Haugh 2004; Pizziconi 2007). However, the current study has not found any quantitative or qualitative indications of whether the consideration is genuine or not. The absence of an association with genuine other-oriented considerations, such as warmth,

kindness and sincerity, may have differentiated *kongson* from English politeness and Japanese *teinei* (Haugh 2004; Pizziconi 2007).

In addition, our findings only partially agree with previous metapragmatic explanations for *kongson* (Tao et al. 2016). Tao et al. (2016) associated *kongson* with polite behavior, ways of speaking, courtesy, manners, being refined and cultivated, good image, good breeding, hierarchical relationship, personal relationship, and friendliness. Our findings support the inclusion of polite behaviors, ways of speaking, manners, and hierarchical relationships, and further reify the “polite behaviors” into multimodal movements, such as bowing and gathering hands. We do not support, however, the links between *kongson* (‘politeness’) and friendliness or personal relationships. The two are found in relation to *kyemson* (‘modesty’) in this study.

The difference between our findings and those of Tao et al. (2016) may stem from the size and types of data used. Tao et al. (2016: 139) employed written questionnaires, with which they asked 49 Korean males and 51 Korean females only one question: “What do you imagine at first when hearing the term *kongson*?”. Only five male participants (3.5 %) and nine females (9 %) mentioned friendliness, and four females (4 %) mentioned personal relationships in their answers. In contrast, the current study surveyed 9,718 texts where *kongson* (‘politeness’) was used. It is possible that a small portion of these data (e.g., 5 % as Tao et al. 2016 found) mentioned friendliness and personal relationships with *kongson* (‘politeness’). They are, however, not salient enough to become patterns that can be used to characterize the metapragmatics of this lexeme. The link between *kongson* and friendliness/personal relationships appears to be either individual variation in our data, or cognitively less salient in comparison to the other cooccurrences identified.

In terms of metapragmatics of *kyemson* (‘modesty’), the findings showed a consistency at a high, abstract level with its Chinese cognate *qianxun* that represents both a virtue used to evaluate one’s personality and behavior, and a tactic to manage social relationships (Bond et al. 2012; Xiong et al. 2018). In order to obtain or maintain a positive social evaluation, speakers with different social statuses were found to demonstrate that they have the virtue *kyemson*. In the meantime, *kyemson* was identified as an effective strategy to manage different types of social relationships, ranging from interpersonal to international (see Example 4). In contrast, *kongson* (‘politeness’), which is adopted to respect the social hierarchies, speaks little about the management of interpersonal relationships. Structural hierarchies have long been regarded as a feature of Korean social relationships (e.g., Kang 2003), against which Korean politeness is examined (e.g., Lee and Ramsey 2000; Yoon 2004). However, our findings point out a potential inconsistency between the two. Rapport relationships and social hierarchies may in fact be managed by different strategies, such as demonstration of *kyemson* and practices of *kongson*. Possibly, a violation of

the *kyemson* norms indicates a speaker's social status being powerful, and a violation of the *kongson* norms incurs relational damage (e.g., not being *kongson* to superiors) or demonstrates extra efforts to establish relational harmony (e.g., being *kongson* to inferiors). The interface between social hierarchies and social relationships in Korean is, nevertheless, more complicated than one featuring another.

Besides the high-level similarities, Korean and Chinese modesty lexemes – namely, *kyemson* and *qianxun* – differ significantly in the personal qualities that they are associated with. *Kyemson* co-occurs frequently with frankness and simplicity, which are not found in metapragmatic interpretations of *qianxun* (Shi et al. 2021). Low-key, stability, and prudence, which are associated with Chinese *qianxun*, are entirely absent with *kyemson*. The concepts of lowering oneself and respecting others occupied one of the topics of *kyemson*, showing their importance in understanding *kyemson*. They are, however, marginal in Chinese conceptualization of *qianxun* (Shi et al. 2021). These differences correspond to the observations of different societal changes in China and South Korea. While South Korea still values Confucianism as “a cultural grammar” (Kim 2016: 9), China abandoned Confucianism during the Cultural Revolution, untying the lowering/elevating practices from the norms of social interactions.

7 Conclusions

By implementing a computational technique, the current study unraveled the metapragmatics of two politeness lexemes, *kyemson* and *kongson*, which are otherwise hard to explain from both emic and etic perspectives. It contributes to the increasing volume of studies on metapragmatics of politeness, by providing a novel approach that can help researchers overcome a number of challenges, including the analysis of broader co-texts, the involvement of diverse contexts, the exploration of politeness-in-use, the multiplicity of metapragmatic interpretations, and the extraction of regularities from discursivities. The findings also provide insight into the underexplored Korean politeness lexemes by revealing their associations with different social qualities and practices. They can be used to define the two lexemes, explain the contexts of their usage, and assist non-Korean speakers in understanding their connections to Korean social cultures.

We should note that there are many more politeness lexemes, such as *yeyuy* in Korean (Kim and Brown 2024) and *reigi*, *teinei*, and *keii* in Japanese (Haugh 2004), as well as Sino-cognates of *kyemson* and *kongson* in other Asian languages (e.g., Vietnamese), that need to be disentangled for the ease of understanding by their global audiences. Therefore, we recommend the application of our methods in

future examinations of intracultural and cross-cultural metapragmatic variations of politeness lexemes.

We should also offer several caveats for the application of our methods. First, although the current study adopted a relatively large size of data from both spoken and written corpora, the spoken data were transcribed with inevitable information loss of their prosodic and non-verbal features. It will be a welcome enrichment if future data analysis includes both transcribed spoken data and their original recordings. Second, topic modeling techniques use vector spaces to extract patterns. If the vector space is highly sparse, for example, including a less frequent politeness lexeme or when its co-texts only occasionally cluster together, other methods, especially manual text analysis, may produce more reliable results than topic modeling techniques. Finally, we should note that BERTopic represents only one of the effective computational methods that can be used to explore politeness metapragmatics. Future studies are encouraged to explore other methods, such as word embeddings and other machine learning techniques, that serve the purpose of their research.

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