

Pragmatic Development of Korean Honorifics: A Corpus Analysis of Child-Directed Speech and Early Childhood Production

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Abstract

In this paper, we examine how complex honorific systems—an understudied linguistic phenomenon—influence children's pragmatic development and linguistic socialization. Through a corpus analysis of naturalistic Korean mother-child interactions, we investigate children's emerging cognitive representations of honorifics and how child-directed speech shapes this process. We present a corpus analysis of naturalistic Korean audio recordings between mother-child dyads ($n = 30$ across three age groups), coded for speech acts at the utterance level. Through this analysis, we investigate the prominence of honorific forms in CDS across three developmental stages, the distribution of the illocutionary force of utterances containing honorific markings, and children's own usage of honorifics. By examining the interaction between speech acts, age, and speaker type (mother vs. child), we can trace how mothers' honorific input maps onto children's emerging pragmatic, lexical, and morphosyntactic competence. This cross-sectional analysis of naturalistic recordings goes well beyond prior case studies to provide a comprehensive report on children's early input and representations of honorific forms. Analysis of children's honorifics production patterns suggests abstract social-cognitive representations that extend beyond construction-based, statistical learning models of pragmatic development. This work exemplifies my broader research interests in cross-linguistic and cross-cultural developmental pragmatics, which we plan to expand through linguistic fieldwork, formal theoretical frameworks, and computational modeling approaches. Potential follow-up study designs are proposed in the discussion section.

1. Introduction

Honorifics play a crucial role in social deixis in everyday language use. As defined by Brown (2011), they serve as “resources for indexing the relative position of interlocutors, referents and bystanders in the lexicon or the morpho-syntax of a language.” While a cross-linguistic phenomenon, the complexity and usage of honorific systems vary across languages and cultures. In most languages, the honorific system is limited to the usage of alternate vocative forms (e.g. honorific titles, nicknames, second person pronouns, self and third person reference terms) (Brown, 2015). Yet other languages such as Korean, Japanese, and Javanese possess far more complex honorific systems encompassing extensive lexical substitutions and verbal inflections (Sohn, 1999; Hori, 1986; Dardjowidjojo, 1973).

In these languages, the speaker’s understanding of the social context at hand is linguistically embedded in each utterance through honorific markings or their deliberate absence. Take for example the Korean verbal suffix and honorific marking *-yo*. For each utterance containing a verb, a Korean speaker must choose whether or not to agglutinate this verbal honorific suffix. Their decision may be static and entirely speaker-dependent (e.g. consistently adding honorific markings to utterances addressed to a professor or consistently omitting them to a close friend) but also dynamic and context-dependent (e.g. usually omitting honorific markings to a spouse, but adding them in the presence of extended family). Korean speakers’ utilization of honorific markings thus explicitly reveal not only their perceived relationship to their addressee, but also communicate their interpretation of the current social context.

Perhaps because honorific language development has remained understudied in languages with complex honorific systems such as Korean, current theory would predict that honorifics are reserved for adult-directed speech (ADS). Despite the complex socio-cultural

information embedded within honorific form usage, the pragmatic function of honorific forms has largely been regarded as a way of marking the referent's "elevated social status" (Kim & Sells, 2007) or the "distance" between the interlocutors (Brown 2011). If the pragmatic function of honorific forms was solely the display of politeness and deference toward addressees, we would not expect to observe systematic honorific form usage in child-directed speech (CDS) and thus not in early children's speech production given the critical role of caregiver input in language acquisition (Shneidman & Goldin-Meadow, 2012).

However, given the linguistic prevalence and cultural significance of honorific forms in languages such as Korean, the mastery of honorifics systems is a bedrock for language socialization and language acquisition. Honorifics acquisition is crucial for children's socialization into cultures that use these forms to convey politeness, hierarchy, and social roles (Burdelski, 2011). Despite their importance, little is known about the early input and production of honorific forms, and in languages like Korean, the developing honorifics system interfaces directly with children's developing morphosyntactic representations. Through the analysis of honorifics usage in CDS and child-produced speech in Korean, this study aims to understand children's early pragmatic representations of honorific forms and their interplay with word learning, morphosyntactic development, and language socialization.

1.1. Korean honorifics system

The Korean honorifics system includes both referent honorifics (including subject, object, and oblique honorifics) and addressee honorifics. Different forms of personal pronouns, address-reference terms, nouns, predicates, particles, and affixes are all used to form honorific expressions (Sohn, 1999). A crucial component of addressee honorification lies in verbal suffixes, dependent on "speech levels" and sentence types. Table 1 presents a summary of

suffixal realizations given six Korean speech levels and four sentence types as presented by Sohn (1999).

Sentence types Speech levels		Declarative	Interrogative	Imperative	Propositive
Honorific	Deferential	-(su)pnita	-(su)pnikka?	-sipsio	-(u)sipsita
	Polite	-(E ²).yo	-(E.)yo?	-(E.)yo	-(E.)yo
Non-honorific	Blunt	-(s)o/-(s)wu	-(s)o?/-(s)wu?	-(u)o/-wu	-(u)psita
	Familiar	-ne-y	-na?/-nunka?	-key	-sey
	Intimate	-E	-E?	-E	-E
	Plain	-ta	-ni?/-(nu)nya?	-kela/-Ela	-ca

Table 1. Korean suffixal realizations given speech levels and sentence types.

Alongside the complex suffixal realizations, there also exist monosyllabic words *ne* and *ye* that serve both as the honorific form of affirmative answers to polar questions as well as reactive tokens in Korean (Young, 2004).

The Korean honorific system's complexity makes it particularly valuable for studying pragmatic development, as it requires children to master both morphosyntactic rules and sophisticated social reasoning. The monosyllabic honorific forms of affirmative answers provide an interesting contrast to verbal suffixal realizations, and situates honorifics acquisition at the intersection of word learning, morphosyntax acquisition, and socialization.

1.2. Function of honorifics use in CDS

Recent studies on Korean honorifics have provided evidence for the usage of honorifics in CDS. However, these studies are observational in nature and focus narrowly on the role of

honorifics in facilitating children's behavioral socialization. Bae et al. (2024), for example, argued that honorifics are utilized by caregivers to encourage and reinforce socially commendable behaviors in children. Through analyzing video recordings of Korean families ($n = 5$; 7-16 months; 245 minutes), they identified 62 utterances and three interactional environments in which adults employed addressee honorification towards children: giving compliments, expressing gratitude, and issuing directives. Similarly, a 15-month observational study in a Korean preschool conducted by Ahn (2020) revealed that preschool teachers also use honorifics as a means of presenting social personas (i.e. that of a teacher) and as "on-stage" markers (i.e. using honorifics while addressing the whole class vs. using informal forms while conversing individually with students). While these papers highlight some of the social environments in which honorific forms are employed in CDS both inside and outside the home, they do not establish regularity of honorifics use or provide comprehensive environments of honorifics use in CDS.

1.3. Children's honorifics production

In order to establish the links between honorifics usage in CDS and how it shapes children's representation of honorifics, we must investigate children's own early honorific form production. Prior research provides both larger-scale statistics on children's usage of honorific markings (Kim et al., 2010; $n = 297$; 3-5 years) as well as observational case studies of preschool-aged children employing honorific forms to navigate social situations of peer conflict (Ahn, 2020). While these studies provide pioneering insights into children's early usage of honorific forms, they retain a largely prescriptivist view in defining and assessing children's socially appropriate (or even socially required) honorific form usage. Such a framework makes it difficult to disambiguate children's early mental representations of honorific forms and their

pragmatic functions from possible simpler one-to-one mappings between honorific forms and specific sociolinguistic contexts that necessitate their usage. Furthermore, the analysis of children's production data independent from their primary source of linguistic input (i.e. caretakers) in these studies limits the ability to understand the relationship between children's language environment and their production of honorific forms.

Specifically, the predefined, constrained contexts presented to children in the assessment of honorifics usage in Kim et al. (2010) provides little insight on *why* these production patterns emerge or what kinds of mental representations of honorific forms children may hold. While Ahn (2020) brings to attention children's novel usage of honorifics of varied speech levels and forms not demonstrated by the teachers, this could be credited to children's exposure to such honorific forms in their primary caregiver CDS, which is not analyzed in the study. Thus while this study provides important insights into children's developing honorifics usage, the question of what their mental representations of honorific forms entail (and how they develop) still remains.

Previous studies have presented narrow sociocultural environments for both honorifics usage in CDS (e.g. complimenting a child) and children's production of honorific forms (e.g. notifying a caller of parent's absence). Additionally, these studies focused largely on socialization through the use of language. In this study, we shift our focus to *socialization to use language* (Ochs & Schieffelin, 1986). That is, instead of focusing on caregivers' utilization of the marked nature of honorific forms to draw attention to socially appropriate behaviors, we focus on their use of honorifics in helping children acquire and produce honorific forms themselves. Through a large-scale and systematic analysis of honorific form usage in CDS and children's own production of honorific forms, we seek to uncover how these honorific forms of varying

pragmatic functions in children's linguistic environment facilitate the formation of their mental representations.

2. Methodology

2.1. Corpus

We analyze the recordings and transcripts from the Ko corpus (Ko et al., 2020) of the Child Language Data Exchange System (CHILDES) database (MacWhinney, 2000). The corpus includes cross-sectionally sampled mother-child dyads across three age groups: 8 months ("Preverbal"), 13 months ("Early speech"), and 27 months ("Multi-word"). 10 mother-child dyads were included per age group ($n = 30$). In the preliminary analysis presented in this paper, 8 mother-child dyads are included per age group ($n = 24$). The corpus includes a collection of 40-minute recordings of spontaneous mother-child play sessions in a mock apartment at Seoul National University.

2.2. Speech act coding: INCA-A

We use the Inventory of Communicative Acts - Abridged (INCA-A), created by Ninio et al. (1994), to code for speech acts at the utterance level (utterances were coded by the author, a native Korean speaker). Each turn-constructual unit (Sacks et al., 1974) is assigned one of 67 illocutionary force codes in the INCA-A, spanning across 12 sub-categories (Directives, Speech elicitations, Commitments, Declarations, Markings, Statements, Questions, Performances, Evaluations, Demands for clarification, Text editing, and Vocalizations). For a full list of codes, refer to Appendix A.

2.3. Honorifics extraction

We extract child-directed and child-produced utterances (Table 2), focusing specifically on those containing the deferential and polite speech-level verbal suffixes as well as the polite affirmative *ne* and *ye* (10.95% of CDS utterances towards 8-month-olds, 8.58% towards 13-month-olds, 15.45% towards 27-month-olds; 8.64% produced by 27 month-olds).

age group	mean utts/ min (MOT)	SD (MOT)	mean utts/ min (CHI)	SD (CHI)
8mo	40.1	8.66	0	-
13mo	41.2	4.70	87.5	30.7
27mo	39.8	2.94	57.2	13.8

Table 2. Mean frequency of utterances for each speaker (mother and child) per age group.

3. Analyses and results

3.1. Mothers' honorific production in CDS

The naturalistic recordings in the Ko corpus include not only mothers' CDS, but also experimenter- and family-directed speech (mean utterances per min: $M = 34.0$, $\sigma = 10.9$). Supporting the established understanding of honorifics usage (i.e. the use of honorifics in signaling social distance), our results presented below in Figure 1 indicate a high proportion of honorific utterances for mothers' experimenter-directed speech (0.7933) but a low proportion for family-directed speech (0.0836) with low standard error values of 0.027 and 0.022 respectively.

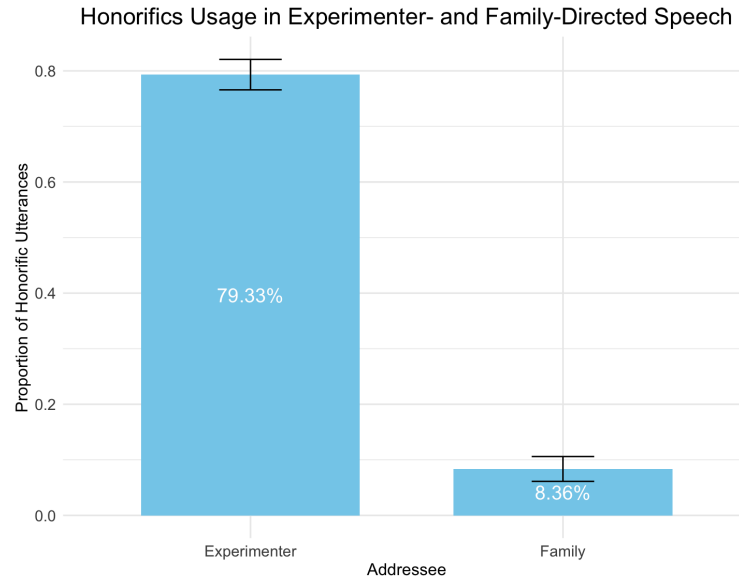


Figure 1. Honorifics usage in experimenter- and family-directed speech.

Mothers' honorifics usage in CDS presents more variable results. All mothers across children's age groups consistently employ honorifics in CDS, with considerable inter-speaker variation and a notable jump in variation between the 8- and 13-month groups to the 27-month group (Figure 2).

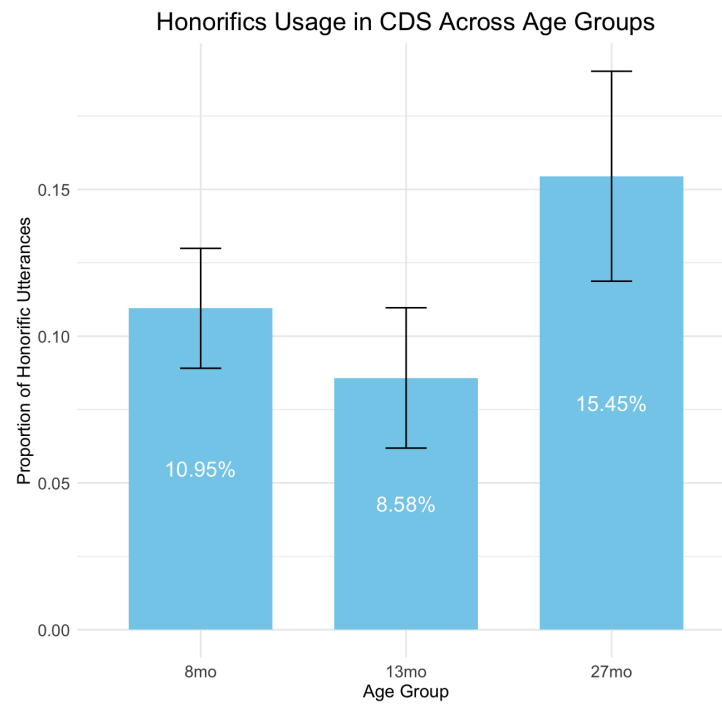


Figure 2. Proportion of honorifics usage in CDS across age groups.

In accordance with Bae et al. (2024), one of the main speech acts in which speakers employ honorific forms is in issuing directives (Figure 3: RP = request/propose/suggest action for hearer or for hearer and speaker). However, most of the other main speech act categories in which mothers employed honorific forms are not captured by the interactional environments reported by Bae et al. (2024). A paired t -test reveals that requests for information (YQ, QN) and requests for action (RP), the most common categories within honorific utterances in CDS, were formulated significantly more often with honorific markers than not across all age groups ($t(23) = -5.34, p < 0.001$).

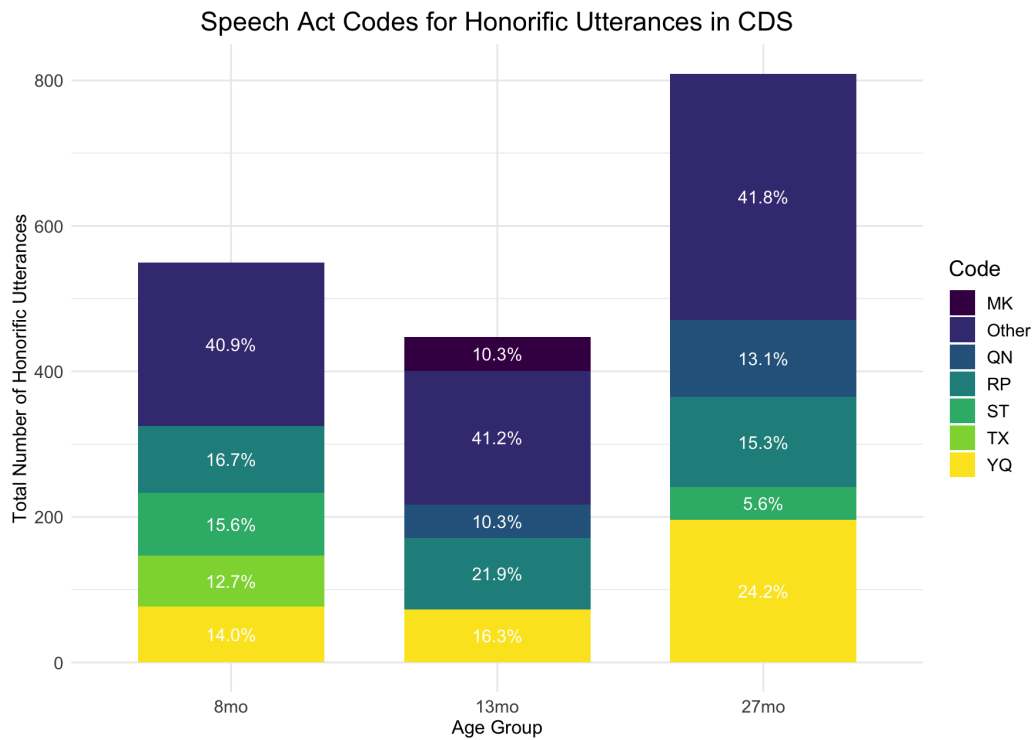


Figure 3. Speech act code breakdowns for honorific utterances in CDS, top 4 categories labeled. (QN = wh-question, RP = request/propose/suggest action for hearer or for hearer and speaker, ST = state or make a declarative statement, TX = read or recite written text, YQ = yes/no question, MK = mark occurrence of event)

3.2. Children's honorific production

We analyze the 27-month-old group's production for honorific utterances. The 8-month and 13-month groups were excluded in this analysis due to the high variability of their communicative utterances (mean utts/min = 0 for the 8-month-olds, mean utts/min = 87.5; $\sigma =$

30.7 for the 13-month-olds). We see high inter-speaker variation in the proportion of children's honorific use ($M = 0.0864$, $\sigma = 0.0674$), reflective of the larger variability in children's developmental trajectory overall (Figure 4). Figure 4 reports raw counts over proportional usage to highlight the number of honorific utterances we had available for analysis. We used linear regression to examine the relationship between mothers' honorific utterance frequencies and children's honorific utterance frequencies (Figure 5). The regression equation is statistically significant ($F(1,6) = 6.49$, $p = 0.044$), and the predictor explains a moderate amount of variance in the outcome variable ($R^2 = 0.52$, Adjusted $R^2 = 0.44$).

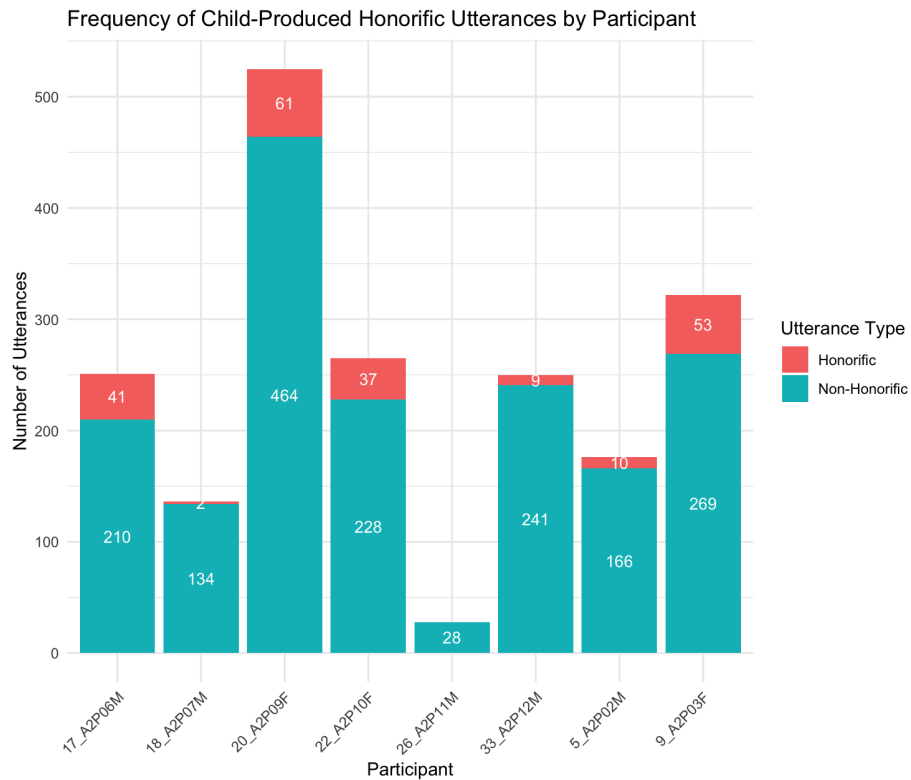


Figure 4. Frequency of child-produced honorific utterances by participant.

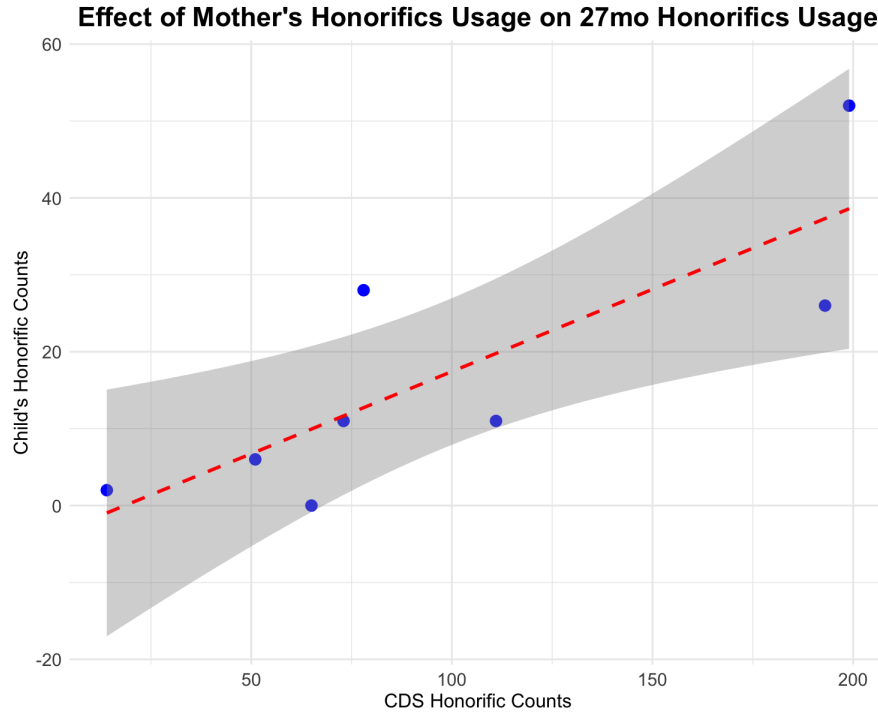


Figure 5. Effect of mother's honorifics usage on children's honorific production plotted with line of best fit.

A Welch's two-sample t -test is conducted to determine whether children were more likely to use honorifics when their mother used honorifics in her previous communicative turn compared to when she did not. The test reveals a statistically significant difference in the proportion of child honorific utterances between the two conditions ($t(571.49) = 7.62, p < 0.001$). The mean proportion of child honorific utterances is higher when the mother used honorifics ($M = 0.19, 95\% CI [0.10, 0.17]$) compared to when the mother did not ($M = 0.05$). This suggests that children are significantly more likely to use honorifics after their mother does in the previous conversational turn.

While children were more likely to employ honorific forms after their mother used an honorific form than when she did not, the *frequency* of their honorific form usage was comparable for each environment ($n = 95$ and $n = 112$ respectively). In Tables 3 and 4 below, we

highlight the top five speech act categories of children's honorific utterances for each linguistic environment.

	AA	RT	RP	SA	ST
%	28.4	12.6	10.5	6.3	6.3

Table 3. Top five most frequent codes for children's honorific utterances preceded by mother's honorific utterance, aggregated over participants.

(**AA** = affirmative answer to y/n question, **RT** = repeat/imitate other's utterance, **RP** = request/propose/suggest action for hearer or for hearer and speaker, **SA** = answer wh-question with a statement, **ST** = state or make a declarative statement)

	AA	RP	AD	ST	YQ
%	23.2	18.8	9.8	8.9	6.3

Table 4. Top five most frequent codes for children's honorific utterances not preceded by mother's honorific utterance, aggregated over participants.

(**AA** = affirmative answer to y/n question, **RP** = request/propose/suggest action for hearer or for hearer and speaker, **AD** = agree to carry out requested act, **ST** = state or make a declarative statement, **YQ** = yes/no question)

Table 3 displays instances of children conforming to an honorific linguistic environment set by their mother. AA and SA mark instances of children answering mother's honorific-marked questions with honorific utterances, RT marks children's imitation of mother's honorific utterance, while RP and ST indicate requests for action and declarative statements made by children within an honorific linguistic environment.

Table 4 displays instances of children utilizing honorific forms without their mother explicitly establishing an honorific linguistic environment in the previous utterance. AA and AD mark instances of children answering non-honorific-marked questions with the honorific affirmative form and complying to non-honorific marked requests for actions with an honorific utterance. Additionally, children make their own requests (RP) and statements (ST) and ask their own questions (YQ) with utterances containing honorific forms despite the lack of honorific forms in the mother's previous utterance.

4. Discussion

Through a large-scale analysis of the understudied linguistic feature of honorifics in Korean, this study provides insight on broader questions in pragmatic development occurring in tandem with word learning and morphosyntactic development.

An analysis of honorifics usage in CDS across age groups reveals consistent usage patterns alongside significant variability (Figure 2). This variability could be attributable to individual differences in children's verbal and non-verbal behaviors, which elicit differing verbal responses from caregivers (Rowe, 2012). Notably, the sharp increase in standard error from the 8- and 13-month groups, where children's verbal behavior was largely limited, to the 27-month group reflects the increasing variability in children's verbal behaviors (Fenson et al., 1994).

Despite the variation, this cross-sectional data establishes the regular use of honorifics in CDS, suggesting an integral role in shaping early sociopragmatic development.

The speech acts of honorific utterances in CDS sheds light on mothers' pragmatic representations of honorific forms. These representations are usually abstracted away in the largely consistent use and omission in stranger- and family-directed speech respectively (Figure 1). While honorifics serve as markings of deference and politeness in adult-directed speech (ADS) (Sohn, 1999), our findings suggest that honorifics in CDS serve the didactic purpose of fostering children's development and production of honorifics pragmatics. Supporting this hypothesis, we find that requests for action and information make up the most frequent speech act categories for honorific utterances in CDS across age groups in the corpus. Furthermore, these categories were formulated significantly more with honorific markers than not across all age groups. These findings suggest that mothers' representation of honorifics as politeness markers extend beyond a static referent status to speech act types of utterances. This mirrors

cross-linguistic observations that caregivers emphasize socially significant language features when addressing children, such as indirect requests in English (e.g., “Could you please...”) to model politeness (Brown, 1990).

Children’s own honorific production patterns suggest the early development of honorifics pragmatics, with word learning often preceding morphosyntactic acquisition. The relatively high frequency of affirmative answers (AA) in answer to both honorific-marked and unmarked questions suggests a pragmatic representation of requests for information, with or without honorifics, to be linked to honorifics usage (Tables 2 and 3). These results suggest that comprehension and mental representation formation precede production, as the frequency of both polar questions (YQ) and wh-questions (QN) lag behind that of affirmative answers (AA). These findings are consistent with the literature on comprehension preceding production (Petretic et al., 1977): as children expand their lexical and syntactic abilities, we would expect them to more frequently apply these honorific forms in context.

Overall, mother’s frequency of honorifics usage had a significant effect on the child’s own frequency of honorifics usage, supporting the construction-based, statistical learning model of the development of pragmatic competence that posits children learn language patterns based on the frequency of exposure (Cameron-Faulkner et al., 2003; Tomasello, 2003). However, beyond the frequency of honorific production, children’s production patterns in relation to the speech acts associated with their early honorifics production supports the formation of more abstract social-cognitive representations underlying children’s early pragmatic competence (Rowe, 2012). That is, if we assume that honorifics learning is purely construction-based, the high usage of affirmative answers to questions (with or without honorific markings) is not fully

accounted for. These findings thus suggest that children's representations of honorific forms map onto higher-level representations of speech acts beyond the linguistic constructions themselves.

Building upon these preliminary findings, future studies may further investigate the development of children's interconnected linguistic and social representations through honorifics. Children's understanding of the role of honorifics in social deixis could be tested through eye-tracking studies measuring online honorifics comprehension. We propose one potential design using the visual-world paradigm in which children and adults could listen to sentences with or without honorifics while viewing images representing different social roles (e.g. that of an adult vs. that of a peer). Eye-tracking would reveal how quickly and accurately participants infer the intended addressee. This would help clarify whether children's comprehension of honorifics is driven by linguistic input alone or by a developing understanding of honorifics pragmatics.

Additionally, future studies utilizing the combination of experimental tasks with computational modeling would allow for the simulation of the social, linguistic, and immediate contextual clues in honorifics comprehension. For example, a cross-situational learning task could examine how children infer appropriate honorific use based on repeated exposure to social contexts. In this task, children would observe animated characters interacting in formal and informal settings, with specific honorific forms paired to these contexts. The data collected on children's accuracy and frequency of honorific use could be used to construct a Bayesian learning model, simulating how children probabilistically map honorifics onto social contexts.

5. Conclusion

This paper examines how Korean honorifics, a linguistically and culturally significant feature, shape and reflect early pragmatic development. Through a corpus analysis of naturalistic mother-child interactions, our findings contribute to a broader understanding of the interplay between linguistic and pragmatic development and socialization.

Key findings suggest that mothers use honorifics in child-directed speech (CDS) not merely as markers of politeness or deference towards the addressee, but as tools to scaffold children's representations of the socio-pragmatics of honorific forms. The prevalence of honorifics in speech acts such as requests and information-seeking supports their pedagogical function, emphasizing pragmatic learning over static social indexing. These patterns suggest that caregivers selectively highlight the cultural and social relevance of honorifics to foster children's early pragmatic competence. Children's own honorific production patterns suggest that comprehension and pragmatic associations precede morphosyntactic mastery, shedding light on the broader debates of statistical learning and social-cognitive representation formation in pragmatic development within the language acquisition literature.

Future studies may extend these findings by exploring how children's understanding of honorifics evolves through experimental designs encompassing eye-tracking and computational modeling. These studies would offer deeper insights into how children integrate linguistic input, social context, and cognitive representations in the development of pragmatic competence.

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Appendix A. Inventory of Communicative Acts - Abridged (INCA-A) (Ninio et al., 1994)
Illocutionary Force Codes

Directives

AC	Answer calls; show attentiveness to communications.
AD	Agree to carry out an act requested or proposed by other.
AL	Agree to do something for the last time.
CL	Call attention to hearer by name or by substitute exclamations.
CS	Counter-suggestion; an indirect refusal.
DR	Dare or challenge hearer to perform an action.
GI	Give in; accept other's insistence or refusal.
GR	Give reason; justify a request for an action, refusal, or prohibition.
RD	Refuse to carry out an act requested or proposed by other.
RP	Request, propose, or suggest an action for hearer, or for hearer and speaker.
RQ	Yes/no question or suggestion about hearer's wishes and intentions
SS	Signal to start performing an act, such as running or rolling a ball.
WD	Warn of danger.

Speech Elicitations

CX	Complete text, if so demanded.
EA	Elicit onomatopoeic or animal sounds.
EI	Elicit imitation of word or sentence by modelling or by explicit command.
EC	Elicit completion of word or sentence.
EX	Elicit completion of rote-learned text.
RT	Repeat or imitate other's utterance.
SC	Complete statement or other utterance in compliance with request.

Commitments

FP	Ask for permission to carry out act.
PA	Permit hearer to perform act.
PD	Promise.
PF	Prohibit/forbid/protest hearer's performance of an act.
SI	State intent to carry out act by speaker; describe one's own ongoing activity.
TD	Threaten to do.

Declarations

DC	Create a new state of affairs by declaration.
DP	Declare make-believe reality.
ND	Disagree with a declaration.
YD	Agree to a declaration.

Markings

CM	Commiserate, express sympathy for hearer's distress.
EM	Exclaim in distress, pain.
EN	Express positive emotion.
ES	Express surprise.
MK	Mark occurrence of event (thank, greet, apologize, congratulate, etc.).
TO	Mark transfer of object to hearer.
XA	Exhibit attentiveness to hearer.

Statements

AP	Agree with proposition or proposal expressed by previous speaker.
CN	Count.
DW	Disagree with proposition expressed by previous speaker.
ST	Make a declarative statement.
WS	Express a wish.

Questions

AQ	Aggravated question, expression of disapproval by restating a question.
AA	Answer in the affirmative to yes/no question.
AN	Answer in the negative to yes/no question.
EQ	Eliciting question (e.g., hmm?).
NA	Intentionally nonsatisfying answer to question.
QA	Answer a question with a wh-question.
QN	Ask a product-question (wh-question).
RA	Refuse to answer.
SA	Answer a wh-question with a statement.
TA	Answer a limited-alternative question.
TQ	Ask a limited-alternative yes/no question.
YQ	Ask a yes/no question.
YA	Answer a question with a yes/no question.

Performances

PR	Perform verbal move in game.
TX	Read or recite written text aloud.

Evaluations

AB	Approve of appropriate behavior.
CR	Criticize or point out error in nonverbal act.
DS	Disapprove, scold, protest disruptive behavior.

- ED Exclaim in disapproval.
- ET Express enthusiasm for hearer's performance.
- PM Praise for motor acts, i.e. for nonverbal behavior.

Demands for clarification

- RR Request to repeat utterance.

Text editing

- CT Correct, provide correct verbal form in place of erroneous one.

Vocalizations

- YY Make a word-like utterance without clear function.
- OO Unintelligible vocalization.