Educalingua
International Conference
FPBS UPGRIS

Metapragmatic Awareness of Politeness in Student–AI Prompting: A Sociopragmatic Study

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ABSTRACT

This study is motivated by students' politeness in composing prompts to AI when seeking assistance with academic tasks. The central issue addressed here is the as-yet unrealized awareness among students regarding such politeness, along with the factors underlying it. This study aims to describe the forms of students' metapragmatic awareness and to identify the sociopragmatic factors that underlie it in their interactions with AI. Employing a descriptive qualitative method, the study analyzes 154 utterances drawn from retrospective interviews with six informants from various universities in the city of Semarang. The findings show that 85 of the 154 utterances (55.2%) displayed at least one form of metapragmatic awareness, with explicit naming of strategy emerging as the most dominant form (28 instances, 32.9%). Meanwhile, 109 of the 154 utterances (70.8%) contained at least one sociopragmatic factor, with rights and obligations as the most dominant factor (34 instances, 31.2%), followed by power relations (33 instances). The study further reveals an asymmetry between these two dimensions, indicating that students more frequently exhibited implicit sociopragmatic beliefs than metapragmatic awareness that was genuinely and explicitly verbalized.
Keywords: AI prompting, human-AI interaction, metapragmatic awareness, politeness, sociopragmatics

Introduction

The development of artificial intelligence (AI) technology is now advancing rapidly. AI is a system capable of emulating human cognitive functions (Hermanto et al., 2024). In practice, AI can perform a wide range of tasks, which greatly assists humans in numerous daily activities, from the simplest to the most complex (Purwanti, 2023), including retrieving information, generating answers, and producing images and even videos. Its role has, in fact, expanded to that of a co-writer in creative language processes, including in the teaching of Indonesian to foreign speakers (Saddhono et al., 2026). AI is also readily accessible to a wide range of users. Within the field of education, AI has likewise brought substantial change, particularly for university students, who now rely on it to assist with academic assignments. A global study reports that nearly 90% of university students have used generative AI in their academic activities (Hirabayashi et al., 2024). This phenomenon is similarly evident in Indonesia, where 50.57% of students across various higher education institutions use AI, and 42.53% report having a good understanding of it (Roger et al., 2025). A study conducted at one Indonesian university further found that nearly all students (96.9%) had used AI to complete assignments, most commonly for finding references (93.8%), drafting or writing assignment content (31.3%), and checking grammar (21.9%); moreover, 78.1% of students reported always reviewing AI-generated output before submission (Sururiyyah et al., 2026). These figures indicate that AI is no longer merely a technology but has become embedded in students' everyday academic routines.

This routine use, in turn, gives rise to a phenomenon worth closer examination, namely a recurring pattern within human–AI interaction in which users apply linguistic politeness when engaging with AI, even while recognizing that AI is merely a technology devoid of feelings. A survey (Reitz, 2025) of more than 12,000 AI users across 17 countries found that 43% of users routinely say "please" or "thank you" to AI, with the highest incidence in India and the lowest in the United States, Denmark, and Sweden. Meanwhile, a separate survey of American office workers found that 86% of respondents behaved politely toward AI, with the majority believing that such politeness influences the accuracy of the responses they receive (Small, 2026). The crux of this phenomenon, however, lies not simply in whether humans behave politely toward AI, but in their awareness of employing politeness in the first place. When students choose to use the word "please," or, conversely, issue commands directly without any softening, that choice reflects an awareness of the very speech strategies they themselves employ when interacting with AI.

Awareness of this kind is closely tied to the concept of politeness. Leech (1983) explains that speakers typically adjust their utterances so as not to disadvantage their interlocutor, while simultaneously securing some social benefit for themselves, a principle he terms the Politeness Principle. Yet in interactions with AI, a new question arises: to what extent is such adjustment of speech genuinely and consciously recognized by the speaker, as opposed to being merely a habit carried over unreflectively from human-to-human interaction? This kind of awareness is, in pragmatic studies, referred to as metapragmatic awareness. The term was first introduced by Verschueren (1999), who held that speakers' reflective awareness of the linguistic choices they make, along with the consequences of those choices, is itself part of language's adaptive capacity. Verschueren (1999) further emphasized that this awareness is calibrated between pragmatic and

metapragmatic functions, its most visible manifestation being self-monitoring, marked by hesitation and repair. Building on these indicators, including performative (dicendi) verbs, mental state verbs, and self-monitoring, the present study identifies five forms of awareness: explicit naming of speech strategy, self-reflective statements, calibration to situational context, repair or revision of utterances, and shifts in pattern over time. These forms demonstrate that pragmatic awareness is not always explicit in nature; some instances emerge reflectively and are fully conscious, while others surface more automatically or habitually. Kasper and Rose (2002) similarly affirm that pragmatic awareness can indeed vary in its degree of explicitness in this manner, depending on a speaker's linguistic experience. The mere manifestation of awareness, however, does not in itself account for the social factors that give rise to it. Thomas (2013) explains that the degree of indirectness a speaker selects is shaped by five factors. First, relative power, namely the tendency to speak more indirectly toward those who hold power over the speaker. Second, social distance, namely the degree of familiarity between speaker and interlocutor. Third, size of imposition, namely the weight of the burden carried by the request being made. Fourth, rights and obligations, namely whether or not the speaker has the right to make the request and the interlocutor the obligation to fulfill it. Fifth, negotiation of pragmatic parameters, namely the process by which the preceding four factors are negotiated through language. Thomas maintains that these five factors are universal, forming the basis of politeness choices across languages and cultures alike, even as their specific application varies. Accordingly, this study also seeks to uncover the sociopragmatic factors underlying students' awareness in speech, analyzed through Thomas's (2013) parameters of indirectness.

Research on the role of politeness in human–machine interaction has, in fact, been fairly extensively examined (Ribino, 2023). Existing studies, however, remain largely centered on its effect on system performance, and their findings are often contradictory. Yin et al. (2024) found that impolite utterances degrade the quality of AI responses, whereas Dobariya and Kumar (2025) found, conversely, that AI quality improved as the rudeness of utterances increased, and Mehta et al. (2026) demonstrated that this effect is in fact inconsistent, varying according to language and the AI model used. Beyond this debate over performance, several other studies have examined AI's own pragmatic competence. Chen et al. (2024) found that ChatGPT's conversational pragmatic performance matches, or even surpasses, that of human-to-human conversation. Lee and Cook (2024) showed that ChatGPT is reasonably capable of realizing speech acts of request and refusal while accounting for social distance and degree of imposition, though it remains weaker in performing apologies. Andersson and McIntyre (2025), meanwhile, found that large language models still struggle with complex situational contexts. Studies of politeness in human-to-human digital communication show that speech strategies are shaped by social relations and context (Zahidah et al., 2023), and research conducted in Indonesia by Yuri et al. (2026) has begun to touch on the sociolinguistic dimension of student prompting through code-mixing. Yet none of these studies has examined the forms of metapragmatic awareness that emerge when students report on or employ such politeness.

Research approaching the aspect of user awareness itself remains similarly limited and has yet to specifically target these forms of awareness. Lumer and Buschmeier (2023) reveal that users hold distinct expectations regarding robot politeness, tending to view it

as merely functional and rule-based rather than shaped by considerations of social status as in human-to-human interaction. This study, however, concerns users' beliefs about AI's politeness rather than their awareness of their own. In a similar vein, Lazebnik et al. (2025) quantitatively document that users' level of politeness toward AI declines over the course of interaction and is influenced by age and the AI's embodied appearance, yet this study stops short at measuring speech patterns and does not explain how users understand or reflect upon such shifts. Barhoum (2025) maps the escalation of users' abusive behavior in response to AI system failures, but likewise does not clarify what form of metapragmatic awareness underlies that escalation. Salsabila and Sohidin (2024) have examined students' understanding of academic ethics regarding AI use in general, but have not extended their inquiry to the forms of metapragmatic awareness students exhibit when reporting on or employing politeness in prompting.

Addressing this gap is a pressing matter, given that Indonesian students' use of AI in academic activities continues unabated, while Indonesian cultural norms of politeness, such as *sungkan* (a sense of reticence or deference) and respect, are not necessarily applied in the same manner when facing a nonhuman interlocutor. Without understanding how students become aware of their own linguistic choices, efforts to build responsible literacy in interacting with AI will be left lacking a crucial body of inquiry, particularly for the teaching of language skills and politeness in the AI era. In light of this gap, the present study aims to describe the forms of metapragmatic awareness (Verschueren, 1999) that students display when reporting on or employing politeness strategies in writing prompts to AI, as well as to identify the sociopragmatic factors (Thomas, 2013) that underlie this awareness and its use.

Methods

The method employed in this study is a qualitative method. This method aims to examine and understand the meanings that individuals or groups attach to a given social phenomenon (Creswell & Creswell, 2023). The object of this study is the forms of metapragmatic awareness displayed by students and the sociopragmatic factors underlying them. Data were drawn from a prior study, collected through retrospective interviews with six informants selected using a purposive sampling technique based on variation in politeness level, namely two informants exhibiting impolite utterances, two exhibiting polite utterances, and two exhibiting the most polite utterances, each group comprising one male and one female student from various universities in the city of Semarang. Retrospective interviews were chosen because they are regarded as a valid form of verbal report for uncovering speakers' strategies and modes of thinking, which are not always evident from their utterances alone (Cohen, 1996). Data validity was ensured through reflexivity, that is, presenting previously collected data in order to preserve the objectivity of interpretation when that data is re-analyzed through a new theoretical framework, as well as through thick description, by presenting excerpts of utterances as direct evidence for each category so that the process of data interpretation can be independently verified by the reader.

The data analysis applied in this study adapts Creswell and Creswell's (2023) qualitative data analysis model. This model was carried out through six stages, as follows. First, organizing and preparing the retrospective interview data, consisting of 154 utterances from six informants. Second, reading through the entire dataset to understand

the context of each utterance. Third, coding the data, which was then classified into two theoretical frameworks. The first framework concerns the forms of metapragmatic awareness students display regarding the politeness of their utterances, classified according to Verschueren's (1999) theory into five forms: explicit naming of strategy, explicit self-reflective statements, situational calibration, repair or revision of utterances, and diachronic pattern change. The second framework concerns the sociopragmatic factors underlying this awareness, adapted from Thomas's (2013) parameters: social distance, relative power, degree of imposition, rights and obligations, and negotiation of pragmatic parameters. These two frameworks were coded independently, and there was no requirement that both be filled for every utterance. An utterance was coded under the Form of Awareness dimension if the awareness in question left an explicit linguistic trace in the language used, whereas an utterance was coded under the Sociopragmatic Factor dimension if its content clearly pointed to one of the parameters. Where only one criterion was met, the data were coded under that single dimension alone, leaving the other dimension blank. The asymmetry in the amount of data across these two dimensions is discussed further in the Findings and Discussion section. The subsequent stage involved presenting the results of the data analysis according to themes and sub-themes in a descriptive and in-depth manner, followed by drawing conclusions regarding the forms of metapragmatic awareness displayed by students and the sociopragmatic factors underlying them.

Findings and Discussion

This section addresses the research problem by presenting the forms of metapragmatic awareness and the sociopragmatic factors underlying them, as analyzed from a dataset of 154 utterances obtained through retrospective interviews with six informants. The analysis was carried out by applying the theories and approaches outlined in the preceding sections, namely the Introduction and Methods.

The analysis in this section focuses on the first dimension, namely the forms of metapragmatic awareness students display when reporting on or employing politeness strategies in writing prompts to AI. It should be emphasized that the five categories used here do not constitute a fixed taxonomy from Verschueren (1999), but rather represent the researcher's own adaptation of the pragmatic-metapragmatic calibration principle he proposed, operationalizing the indicators of performative (dicendi) verbs, mental state verbs, and self-monitoring into five linguistically observable forms of awareness: explicit naming of strategy, explicit self-reflective statements, situational calibration, repair or revision within interaction, and diachronic pattern change. Of the 154 utterances analyzed, 85 displayed one of these five forms of awareness, with the distribution presented in Table 1.

Table 1. Metapragmatic Awareness Forms

No.	Category	Score
1.	Lexical naming	28
2.	Explicit self-reflection	14
3.	Situational calibration	24
4.	Prompt repair and revision	12
5.	Diachronic change	7

Explicit naming of strategy emerged as the most dominant form of awareness, with 28 instances, marked by direct references to the politeness lexicon that students employed or deliberately omitted. Some informants named their use of politeness markers as a conscious strategy, as seen in the utterance "For casual stuff I guess I still, like, still use whatever, 'please' I guess" (WWN-007/P/TS) and "I prefer to explain directly, or get straight to the point" (WWN-120/L/S). This kind of awareness aligns with the concept of self-monitoring that Verschueren (1999) emphasizes as the clearest manifestation of pragmatic-metapragmatic calibration, since students go beyond simply producing polite or impolite speech, they can name, in their own terms, the lexical choices they make. This finding also reinforces Kasper and Rose's (2002) observation that the explicitness of pragmatic awareness depends on a speaker's linguistic experience; students already accustomed to writing prompts appeared better able to name their politeness strategies than those still adjusting to the practice. The phenomenon of labeling one's own speech strategy using everyday terms, such as "politeness marker" (kata bantu), aligns with what Verschueren (1999) refers to as folk concepts of linguistic action, that is, labels speakers themselves devise to make sense of their own actions, rather than technical linguistic terminology, yet these labels nonetheless stand as valid evidence of reflective conceptualization of one's own speech practices.

The second most frequently found form was situational calibration, with 24 instances. This form is marked by the conditional structure "if... but if..." indicating conscious adjustment to context, for example "If I'm in a hurry then no [I don't use a politeness marker]" (WWN-008/P/TS) and "If it's like a really heavy, really serious assignment, sometimes I feel like I really need help" (WWN-009/P/TS). The high frequency of this form indicates that students' awareness of politeness toward AI is not fixed, but is continually renegotiated based on situational factors such as urgency and task load. This pattern aligns with Bell's (1984) audience design theory, whereby speakers adjust their speech style according to their perception of their interlocutor and the situation, even though in this context the interlocutor is a nonhuman entity. This pattern is also consistent with Lee and Cook's (2024) finding that ChatGPT itself is fairly sensitive to degree of imposition when realizing request speech acts, suggesting that user and system situational sensitivity appear interrelated, albeit from different sides of the interaction.

Explicit self-reflective statements were found in 14 instances, marked by performative mental verbs that directly articulate awareness itself, as in "I'm aware that I use the word 'please'" (WWN-063/P/SS) and "because I'm used to using polite language" (WWN-077/P/SS). Unlike explicit naming of strategy, which merely labels a word choice, this form displays awareness verbs such as "aware," positioning the speaker as a subject

who actively monitors their own speech acts. Data WWN-081/P/SS reinforces this pattern: "I've come to realize that the way I speak to AI is heavily influenced by habits and upbringing around politeness since childhood." This utterance shows that students' self-reflection does not stop at recognizing their own speech patterns, but also links those patterns to a process of politeness socialization that has been ongoing since childhood. Verschueren (1999) refers to this form of awareness as the most explicit manifestation of self-monitoring, since the speaker not only produces polite speech but is also able to verbalize their own awareness of that very process.

The form of repair or revision within interaction was found in 12 instances, marked by students' reports of rewriting or clarifying a prompt after finding the AI's response unsatisfactory. Data WWN-014/P/TS illustrates this: "[Rewriting] Just more detailed, really. More thorough, meaning some words get added." A similar pattern appears in data WWN-102/L/TS: "We usually do change the sentence in some parts. We change it to match what I want." Data WWN-144/L/SS further reinforces this form: "Yes, often maybe, because usually the first answer to the first question isn't quite satisfying for us." These three instances show the same pattern, namely that students detect a source of trouble in the form of an AI response that falls short of expectations, and then revise their own utterance to improve the outcome of the subsequent interaction. This pattern aligns with Levelt's (1983) monitoring theory of self-repair in language production, which explains that speakers monitor their own speech and interrupt it upon detecting a problem. Although Levelt's (1983) theory was formulated for spontaneous spoken production, this finding shows that a similar mechanism also operates in written, turn-based interaction with AI, where repair does not occur mid-utterance but rather in a follow-up prompt, after students have evaluated the outcome of the prior response.

The least frequently found form of awareness was diachronic pattern change, with 7 instances. This form is marked by explicit comparisons between students' past and present ways of speaking, as in data WWN-071/P/SS: "At first I wrote short statements because I didn't know how to write a good prompt. Now I'm clearer in explaining what I need so the answer is more accurate." A similar pattern is found in data WWN-023/P/TS: "So maybe going forward I probably won't use politeness markers anymore, since honestly the reason I used them before was just out of reflex." Data WWN-139/L/SS shows a different pattern, one of consistency over time: "I first used AI back in school. I've always used the word 'please' because whenever you're asking for something, asking for help, you naturally use the word 'please.'" These three instances show that students' metapragmatic awareness is not a static condition, but develops as their experience interacting with AI grows. The low frequency of this form aligns with Kasper and Rose's (2002) view that this kind of cross-temporal comparison demands a higher degree of reflection than other forms of awareness, since speakers must recall and evaluate their own speech patterns over time, rather than simply respond to the situation immediately at hand. This finding is also consistent with Barron's (2021) discussion of diachronic pragmatic variability, namely that an individual speaker's pragmatic patterns can change over time, and not merely vary synchronically across situations as seen in the situational calibration form discussed earlier.

Across these five forms, students' metapragmatic awareness clearly does not sit at a single, fixed level of explicitness. Naming and situational calibration tend to surface almost spontaneously, whereas self-reflection, repair, and diachronic change call for far

more deliberate monitoring of one's own speech. These forms of awareness point to a second dimension worth examining: the sociopragmatic factors underlying them.

Thomas (2013) explains that this degree of indirectness is shaped by five factors: relative power, social distance, size of imposition, rights and obligations, and negotiation of pragmatic parameters. Thomas (2013) maintains that these five factors are universal, applicable as a basis for the use of politeness across any language or culture, while acknowledging that their manner of application differs from one context to another. In this study, these factors serve as the framework for identifying what underlies students' polite behavior toward AI.

Table 2. Underlying Sociopragmatic Factor

No.	Category	Score
1.	Social Distance	10
2.	Relative Power	33
3.	Degree of Imposition	17
4.	Rights and Obligations	34
5.	Negotiation of Pragmatic Parameters	15

The findings of this study reveal that the most dominant factor is rights and obligations, with 34 instances. This factor relates to norms of rights and obligations, norms that are typically instilled from childhood and become habitual. Data WWN-013/P/TS shows an informant stating: "We want to get something, but if we don't say the politeness word, it just feels off. Maybe that's just how it is." A similar sentiment appears in data WWN-084/P/SS: "Since I was a child, my parents taught me to be polite, to say thank you, to apologize." AI, of course, holds no social status requiring deference. Yet this norm persists in students' interactions with it nonetheless. Consistent with Thomas (2013), the factor of rights and obligations concerns the speaker's right to make a request and the interlocutor's obligation to fulfill it. In human-AI interaction, however, this factor does not operate as a consciously negotiated exchange, but rather as a social habit formed through a long process of socialization. Data WWN-072/P/SS reinforces this finding: "I fairly often use the words 'please' and 'thank you' because it's become a habit." The word "habit" here indicates that linguistic politeness is not the outcome of a calculation involving rights and obligations, but behavior that has already become automatic. Locher (2013), through the concept of relational work, explains that language choices reflect the way speakers reproduce and negotiate appropriateness within social interaction. This norm of rights and obligations, expressed through linguistic politeness, becomes a means by which students maintain their social identity as educated and civil individuals, even when their interlocutor is a nonhuman entity.

The second most frequent factor was relative power, found in 33 instances, indicating that students' perception of their interlocutor's power also shapes their politeness. In the case of AI, however, this pattern is in fact inverted relative to human-to-human patterns. Data WWN-118/L/S shows an informant stating: "I don't believe it matters, because to me AI is just a program made by humans, so it can't interpret whether

a sentence is polite or not." This utterance shows that students regard AI as lacking the capacity to judge politeness, rendering politeness, in the informant's view, unnecessary. Data WWN-104/L/TS affirms the same view: "To me it's more like a tool that helps with certain things only." This data shows that AI is regarded merely as a tool. Data WWN-059/P/S concludes this point clearly: "In conclusion, because I consider it a tool, nothing more." This underscores an unequal power relation, in which humans occupy the higher position, since AI is a human creation that can be operated entirely according to the user's will. Because AI is not a social agent, no genuine power distance exists between it and its users and with that imbalance absent, so is much of the motivation for deference-based politeness, unlike in human hierarchies. This inverts what Hofstede (2001) frames as power distance: the perception of unequal power that ordinarily prompts politeness as a form of deference. Lumer and Buschmeier (2023) report a similar pattern: users hold different expectations of politeness toward robots, treating it as functional and rule-based rather than tied to social status the way it is between humans.

The factor of degree of imposition was found in 17 instances. This factor indicates that the size of the burden placed on AI through a given request also shapes students' politeness. Data WWN-009/P/TS illustrates this clearly: "If it's like a really heavy, really serious assignment, sometimes I feel like I really need help, so it's less about being polite really and more about being detailed and formal." This utterance shows that when facing a demanding task, students become not only more polite but also more detailed and formal, so that the AI produces an answer that fits their needs. Students here adjust how they speak mainly to secure a more useful result from AI. A pattern Zhang and Yu (2025) also observe, in which the politeness chosen no longer signals respect for the interlocutor but instead serves the goal of effective communication. The clearest illustration of this appears in data WWN-038/P/S: "If it's important, then I have to be polite, because I need it." This data shows that the informant directly links the importance of a task to the need to behave politely, meaning that students regard serious tasks as requiring a formal and structured approach. Brown and Levinson (1987) explain that the greater the threat to face, or face-threatening act, the greater the corresponding effort toward face-saving. In this study, however, that effort is directed not at preserving the interlocutor's face, but at optimizing the system's output through clear and structured requests. Blum-Kulka's (1989) CCSARP (Cross-Cultural Speech Act Realization Patterns) framework likewise holds that the level of imposition shapes speech strategy; toward AI, though, that strategy leans more on functional efficiency than social negotiation.

The factor of negotiation of pragmatic parameters was found in 15 instances. This factor indicates that students consciously weigh several social factors at once and adjust the way they speak to AI accordingly. Unlike the other factors, which tend to operate automatically, this factor involves deliberate, conscious consideration, with students selecting a particular strategy after comparing several conditions. Data WWN-044/P/S illustrates this: "It always ends up going from polite to ruder and ruder, and somehow the results get better the ruder it gets." This informant perceives a relationship between an increasingly harsh tone and increasingly better results. By contrast, data WWN-070/P/SS shows a different pattern: "Yes, I'm usually more detailed and more polite because I want to get an answer that fits what I need." This informant instead opts for politeness and detail in order to obtain a fitting answer. Together, these two instances show that the negotiation among parameters does not converge on a single pattern, but depends on how

each student interprets the relationship between the form of their utterance and the outcome they receive from AI. Politeness patterns in these human-AI exchanges clearly don't track those found between humans. A divergence Lazebnik et al. (2025) note as well. The findings for this factor reinforce the view that students treat politeness as a variable that can be recalibrated according to need, rather than as a fixed social norm. Elsweiler et al. (2026) reach a comparable conclusion, finding that people adjust their speech toward AI mainly for task-completion efficiency rather than for politeness itself. Of the five sociopragmatic factors identified, this is thus the only one that explicitly involves metapragmatic awareness, making it the point of convergence between the two principal frameworks of this study, the forms of metapragmatic awareness and the sociopragmatic factors.

The final factor identified, found in only 10 instances, is social distance. This indicates that the degree of familiarity between students and AI also shapes their politeness. Data WWN-021/P/TS shows an informant stating: "No, not really, I don't feel any reticence, it's just normal in situations like that. But maybe I feel a bit annoyed when, like, the answer doesn't fit." This utterance shows that students do not construct a conventional social distance with AI. The distance that emerges instead is emotional in nature and shifts according to the quality of the response received. Data WWN-035/P/S reinforces this finding: "On Meta, since I use it less often, my language is probably more polite, but on ChatGPT it's really, literally, sometimes when I'm frustrated with the answer it can get pretty sloppy, whatever word choices come out." This utterance shows that students' linguistic politeness fluctuates depending on how frequently they use a particular AI platform and their emotional state upon receiving a response. Thomas (2013) defines social distance as the degree of familiarity between speaker and interlocutor. In the context of AI, however, this concept shifts from a stable social relationship into a fluctuating functional one. Students do not sustain politeness on the basis of social distance or standing, but rather adjust it according to their perception of the system's performance and reliability.

This study also uncovers an asymmetry worth discussing. Of the 154 utterances, the majority were coded under the sociopragmatic factor dimension, while those explicitly coded under the metapragmatic awareness dimension were considerably fewer. As explained in the Method section, these two dimensions were coded independently, with no requirement that both be filled simultaneously. An utterance was coded under the form of awareness dimension only if it contained an explicit linguistic trace, whereas an utterance was coded under the sociopragmatic factor dimension if its content clearly pointed to one of the parameters. This asymmetry arises because many utterances met the second criterion without meeting the first. This pattern is most evident in the relative power factor, with 33 instances. Data WWN-118/L/S, WWN-104/L/TS, and WWN-059/P/S display a firm conviction that AI is merely a tool incapable of judging politeness. None of these three instances, however, include any explicit reflection on the form of language the informants themselves used in speaking to AI, and so they were coded solely under the sociopragmatic factor dimension. This suggests that students can hold strong sociopragmatic beliefs about power relations without genuinely, consciously reflecting on their own speech strategies. According to Schmidt (1990, 1993), awareness in language processing operates across three levels, namely perception, noticing, and understanding, with noticing serving as the pivotal level in his hypothesis. Drawing on

this distinction, a person may notice a given situation, in this case the power asymmetry between human and AI, without reaching the level of understanding that involves explicit reflection on how that awareness manifests in their own speech. In other words, noticing and understanding are two separate cognitive processes, and the activation of one does not automatically activate the other. This aligns with Verschueren's discussion in Chapter 7, "Reflexivity and Meta-awareness," in The Cambridge Handbook of Sociopragmatics (2021), which extends the concept of salience he had previously developed. Verschueren maintains that linguistic reflexivity operates across an uneven range, from automatic monitoring below the threshold of awareness to explicit reflection that speakers are able to verbalize. These two frameworks stem from different theoretical traditions, yet complement one another in accounting for both the findings of this study and the coding scheme employed: a sociopragmatic belief may sit at the point of noticing in Schmidt's terms, or at a point of low salience in Verschueren's, without ever rising to the point of understanding, or explicit reflection, that would also qualify it for coding under the form of awareness dimension.

Conclusion

Students' politeness toward AI, this study shows, runs deeper than observable speech behavior alone. It is also underpinned by metapragmatic awareness whose explicitness varies from one form to another. Of the five forms of awareness examined, explicit naming of strategy and situational calibration emerged as the most dominant, indicating that students' awareness manifests more often as spontaneous labeling of their own word choices and adjustment to situational context than as explicit self-reflection, repair, or comparison of patterns over time, forms that demand deeper monitoring. Within the sociopragmatic factor dimension, rights and obligations and relative power emerged as the most dominant factors, indicating that students' politeness toward AI is driven more by social norms internalized since childhood socialization than by any conscious assessment of AI's standing as an interlocutor. This study further uncovers an asymmetry between these two dimensions, in that a greater number of utterances displayed implicit sociopragmatic beliefs than explicitly verbalized metapragmatic awareness, with only the factor of negotiation of pragmatic parameters clearly bridging the two dimensions. These findings show that noticing and understanding, as distinguished by Schmidt (1990, 1993), as well as the range of salience proposed by Verschueren (2021), operate as two cognitive processes that do not always proceed in tandem within students' interactions with AI. This study is limited to retrospective interview data from six informants in a single city, and its findings cannot therefore be broadly generalized. Future research should involve a larger and more diverse pool of informants, and should consider triangulating actual speech data with retrospective reports, in order to test the consistency of metapragmatic awareness and sociopragmatic factors in students' interactions with artificial intelligence.

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