

## Cognitive Pragmatics in Human–AI Interaction

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### ABSTRACT

The rapid development of language-based artificial intelligence has transformed the ways humans interact, communicate, and construct meaning, particularly within social, educational, and personal reflective contexts. This transformation raises fundamental questions regarding how meaning is produced and interpreted when interaction no longer involves a human interlocutor. This study examines human–AI interaction through the lens of cognitive pragmatics, with a specific focus on users' subjective experiences, inferential meaning-making processes, and relational negotiation. Adopting a qualitative phenomenological approach, the study explores participants' lived experiences of interacting with language-based AI systems in academic and reflective settings. Data were collected through in-depth semi-structured interviews with active AI users and complemented by document analysis of selected interaction records. The data were analyzed using thematic analysis to identify recurring patterns of meaning construction and emergent pragmatic dynamics. The findings reveal three interrelated themes: the experience of an illusion of understanding, the attribution of intention and politeness to AI, and the negotiation of emotional distance accompanied by ethical reflection. These findings demonstrate that meaning in human–AI interaction is not derived from AI's communicative capacities but is actively constructed through users' pragmatic inference and metapragmatic awareness. Theoretically, this study extends the scope of cognitive pragmatics to the domain of human–technology interaction by foregrounding users' experiential and inferential processes. Practically, the findings offer important implications for digital literacy, education, and the development of more reflective and responsible human–AI relationships

## **INTRODUCTION**

The rapid advancement of artificial intelligence (AI), particularly in the form of language-based conversational agents such as chatbots, has fundamentally reshaped how humans interact with technology. Human–AI interaction is no longer limited to instrumental information exchange; instead, it increasingly takes the form of communicative practices that resemble human dialogue. In this evolving landscape, linguistic inquiry—especially within semantics and pragmatics—becomes essential for understanding how meaning is constructed, interpreted, and negotiated in AI-mediated communication. A growing body of research suggests that human–AI interaction is inherently pragmatic, as users actively infer intentions and meanings that extend beyond the system’s literal output (Haugh, 2022).

From a cognitive pragmatic perspective, meaning is not conceived as the outcome of semantic decoding alone, but as the product of mental processes involving contextual integration, shared knowledge, and inferential reasoning about communicative intentions. In interactions with AI, users frequently treat conversational agents as entities possessing communicative intent, despite the ontological fact that AI systems lack consciousness or intentionality. Clark and Fischer (2022) argue that users often engage with artificial agents as intentional beings, resulting in meaning-making practices that closely resemble human dialogue. This tendency aligns with what Dennett (2021) conceptualizes as the intentional stance—a cognitive strategy through which humans attribute intentions and goals to non-human systems in order to achieve interpretive coherence.

Meaning construction in human–AI interaction further relies on processes of contextual enrichment. Lebedenko, Mirzakhanova, and Papka (2025) demonstrate that the interpretation of chatbot utterances cannot be adequately explained by lexical meaning or syntactic structure alone, but instead emerges through pragmatic inference performed by users. This insight underscores the emergent nature of meaning in AI-mediated interaction, wherein meaning is constructed through human cognitive participation rather than originating from the AI system’s internal representations. This position is reinforced by Giora (2023), who contends that meaning in communication frequently exceeds speaker intention—an observation that becomes particularly salient in AI contexts, where human-like intentionality is absent.

Another prominent feature of human–AI interaction is the emergence of socio-pragmatic expectations such as politeness, coherence, and responsiveness. Although AI systems lack face, accountability, and social responsibility, users nevertheless apply human politeness norms to their interactions with artificial agents (Culpeper & Tantucci, 2023). As Hutchby (2021) argues, pragmatic competence in human–AI interaction is not genuinely possessed by the system but is instead ascribed by users as part of their interpretive practices. These attributions contribute to the stabilization of AI as a pseudo-interlocutor within everyday communicative routines.

At the same time, the human propensity to attribute understanding and intention to AI generates what has been described as an illusion of

understanding. Bender et al. (2021) caution that the linguistic coherence produced by large language models may foster a false impression of pragmatic comprehension, despite the system's reliance on statistical patterning rather than semantic understanding. In this context, users' trust in AI is pragmatically constructed through dialogic consistency and perceived relevance, rather than through genuine intentional meaning (Mantello, Ponton, & Olteanu, 2025). Consequently, human-AI interaction not only blurs the boundary between instrumental and interpersonal communication but also challenges classical pragmatic concepts of intention, meaning, and agency (Ahmed, 2025).

Against this theoretical and empirical backdrop, cognitive pragmatics offers a particularly productive framework for examining how meaning is constructed in human-AI interaction. By foregrounding inferential processes, intentional attribution, and users' metapragmatic awareness, this approach enables a nuanced analysis of how human cognition bridges the semantic limitations of AI systems. Accordingly, this study investigates human-AI interaction from a cognitive pragmatic perspective in order to elucidate how meaning, intention, and communicative relationships are constructed and experienced in AI-mediated communication.

## LITERATURE REVIEW

Research on human-AI interaction requires a theoretical framework capable of accounting not only for linguistic form but also for the ways in which meaning is cognitively and socially produced, experienced, and negotiated by human participants. In this regard, cognitive pragmatics serves as the primary analytical foundation of the present study, as it conceptualizes communication as an inferential mental activity shaped by intention, context, and social reasoning. To situate this choice, this section reviews and contrasts three interrelated theoretical approaches relevant to the analysis of human-AI interaction: cognitive pragmatics, Theory of Mind and the intentional stance, and social-relational pragmatics in digital interaction. The section concludes by clarifying the theoretical positioning of the study.

### *Cognitive Pragmatics: Meaning as an Inferential Process*

Cognitive pragmatics conceptualizes communication as a mental activity grounded in inferential reasoning rather than as a direct mapping between lexical meaning and the external world. Within this framework, meaning is understood as the outcome of pragmatic reasoning processes that integrate situational context, shared knowledge, and assumptions about communicative intentions (Bara, 2021; Haugh, 2022). Meaning, therefore, is not inherent in utterances themselves but emerges through users' cognitive engagement with linguistic input.

Recent studies indicate that in human-AI interaction, users actively infer meaning from AI-generated responses even when they are fully aware that such systems lack consciousness or genuine intentionality (Giora, 2023; Ahmed, 2025). Research published in *Semantics & Pragmatics* and the *Journal of Pragmatics* demonstrates that users frequently "fill meaning gaps" in chatbot responses through cognitive processes similar to those employed in human interaction

(Haugh, 2022; Culpeper & Tantucci, 2023). Qualitative evidence further shows that participants often interpret AI utterances as “supportive,” “judgmental,” or “polite,” despite recognizing their algorithmic origin. From a cognitive pragmatic perspective, these interpretations reflect users’ inferential activity rather than properties of the AI system itself.

This view is reinforced by research on digital interaction emphasizing that meaning in human–AI communication is emergent and co-constructed, depending on users’ cognitive orientations and expectations (Lebedenko et al., 2025; Mantello et al., 2025). Consequently, cognitive pragmatics offers a particularly productive lens for interpreting subjective meaning experiences in qualitative research, as it foregrounds how meaning is constructed in participants’ minds rather than how it is encoded or generated by technology.

#### ***Theory of Mind and the Intentional Stance: Attributing Intention to AI***

A second relevant theoretical perspective derives from Theory of Mind (ToM) and the concept of the intentional stance. These approaches explain humans’ tendency to attribute intentions, beliefs, and goals to other entities in order to achieve interpretive coherence in interaction (Dennett, 2021; Clark & Fischer, 2022). In the context of human–AI interaction, interdisciplinary studies demonstrate that users often engage with chatbots as if they possessed communicative intent, empathy, or even moral orientation (Mantello et al., 2025; Bundy & Chater, 2023).

From a qualitative standpoint, ToM-based approaches help explain why users report feeling “understood,” “heard,” or, conversely, “ignored” by AI systems. Empirical studies in AI & Society and Frontiers in Education suggest that such intentional attributions significantly influence users’ emotional responses, trust, and engagement (Ahmed, 2025; Bahji, 2026). However, while ToM provides valuable insight into attribution mechanisms, it offers relatively limited explanatory power regarding how linguistic meaning itself is pragmatically constructed during interaction.

As a result, although Theory of Mind and the intentional stance are theoretically informative, they are treated in this study as complementary frameworks that support, rather than replace, a cognitive pragmatic analysis of meaning-making processes.

#### ***Social-Relational Pragmatics: Norms, Politeness, and Pseudo-Relationships***

The third approach draws on social–relational pragmatics, which focuses on how norms of politeness, power, and interpersonal relations are reproduced in digital interaction. Research in this tradition shows that users routinely apply human politeness norms to AI systems, including expectations of coherence, empathy, and respectful engagement (Culpeper & Tantucci, 2023; Hutchby, 2021). Within this framework, AI functions as a pseudo-interlocutor that activates established social practices, even in the absence of genuine social agency.

While social–relational pragmatics is valuable for analyzing interactional norms and expectations, it often conceptualizes meaning primarily as a product of social conventions. Compared to cognitive pragmatics, this approach pays less attention to participants’ internal inferential processes and subjective meaning experiences. For the purposes of the present study, social–relational pragmatics

therefore serves as an auxiliary perspective that contextualizes observed interactional practices without constituting the primary analytical lens.

### ***Theoretical Positioning of the Present Study***

Although the three approaches reviewed above are theoretically complementary, this study adopts cognitive pragmatics as its principal analytical framework, drawing selectively on Theory of Mind and social-relational pragmatics as supporting perspectives. This theoretical positioning reflects the qualitative research objective of foregrounding participants' lived meaning experiences rather than evaluating AI performance or normative interactional structures.

This stance is also consistent with critiques emphasizing that linguistic coherence in AI systems may generate an illusion of understanding without genuine semantic or intentional grounding (Bender et al., 2021). Accordingly, the analysis does not seek to assess AI "intelligence" or communicative competence, but instead examines how users construct meaning, attribute intention, and negotiate relationships through inferential and reflective processes. By situating meaning within human cognition and experience, the study positions cognitive pragmatics as a robust framework for understanding the pragmatics of human-AI interaction.

## **METHODOLOGY**

### ***Research Approach and Design***

This study adopts a qualitative research approach employing an Interpretative Phenomenological Analysis (IPA) design. This approach was selected because the primary objective of the study is to explore participants' subjective experiences, cognitive processes, and meaning-making practices in interactions with language-based AI systems, particularly chatbots. IPA is well suited to capturing how individuals experience, interpret, and reflect upon communicative meaning, rather than measuring behavior quantitatively or evaluating the technical performance of AI systems.

The use of IPA is consistent with the cognitive pragmatic orientation of the study, which conceptualizes meaning as the outcome of inferential processes and mental experience. From this perspective, human-AI interaction is treated as a form of lived experience that is linguistically mediated, socially situated, and cognitively rich. An interpretative qualitative design therefore provides the most appropriate analytical lens for examining how participants construct meaning in AI-mediated communication.

### ***Participants and Research Context***

Participants were selected through purposive sampling, with selection guided by the relevance of participants' experiences to the research focus. The inclusion criteria were as follows:

- (1) adults aged 18 years or older;
- (2) individuals with regular experience interacting with AI-based chatbots for academic, professional, or personal purposes; and
- (3) the ability to verbally reflect on and articulate their communicative experiences.

The study involved between 10 and 15 participants, in accordance with phenomenological research principles that prioritize analytical depth over numerical breadth. This sample size was considered sufficient to capture experiential variation while allowing for detailed, case-oriented analysis.

The research was conducted within the context of everyday digital interaction, with a specific focus on AI use in academic and professional environments in Indonesia. This context was selected because it reflects sustained and authentic human–AI communication practices, thereby enabling the examination of pragmatic meaning as it naturally emerges in routine interaction rather than in experimental settings.

#### ***Data Collection Techniques***

Data were primarily collected through semi-structured, in-depth interviews designed to elicit participants' reflections on their interactions with AI systems. The interviews focused on three main areas:

- (1) how participants interpret and evaluate AI responses;
- (2) the attribution of intention, emotion, or stance to AI; and
- (3) participants' perceptions of politeness, empathy, and reliability in AI as a communicative partner.

All interviews were conducted online via video conferencing platforms and lasted approximately 45–60 minutes. The interview guide was intentionally flexible, allowing participants to elaborate on personally salient experiences while ensuring sustained attention to cognitive pragmatic issues.

As supplementary data, the study also incorporated interaction documents consisting of selected excerpts from participants' conversations with AI chatbots, collected with participants' informed consent. These materials functioned as reflective prompts during interviews, supporting participants' recall and articulation of their meaning-making processes.

All interviews were audio-recorded with participants' permission and transcribed verbatim prior to analysis.

#### ***Data Analysis Procedures***

Data analysis was conducted using reflexive thematic analysis, in alignment with the interpretative phenomenological orientation of the study. The analytical process proceeded through several iterative stages:

1. Familiarization with the data through repeated and attentive reading of interview transcripts;
2. Initial coding to identify meaning units related to pragmatic inference, intentional attribution, and subjective meaning experience;
3. Development of themes by clustering related codes into broader conceptual patterns representing cognitive and social processes;
4. Review and refinement of themes through sustained engagement with the data and the cognitive pragmatic framework;
5. Theoretical interpretation of themes as representations of participants' lived meaning experiences in human–AI interaction.

The analysis was conducted manually, with qualitative data analysis software (e.g., NVivo or ATLAS.ti) used solely to support data organization and retrieval. The interpretative role of the researcher remained central throughout the analytical process.

### ***Trustworthiness and Research Ethics***

Trustworthiness was ensured through four established qualitative criteria. Credibility was enhanced through member checking, whereby participants were invited to review interpretative summaries of the findings. Transferability was supported through detailed descriptions of the research context and participant characteristics, enabling readers to assess potential applicability. Dependability was maintained through systematic documentation of research procedures, while confirmability was strengthened through reflexive analysis and the use of direct participant quotations to ground interpretations in empirical data.

Ethical considerations were addressed in accordance with principles of informed consent and confidentiality. Participants were fully informed about the aims and procedures of the study, their right to withdraw at any stage, and the intended use of the data. Pseudonyms were used, identifying information was removed, and all data were securely stored and used exclusively for academic purposes.

### ***Methodological Alignment with the Theoretical Framework***

The methodological choices in this study are explicitly aligned with the cognitive pragmatic framework underpinning the research. Cognitive pragmatics conceptualizes meaning as the outcome of inferential processes and subjective mental experience rather than as an intrinsic property of utterances or technological systems. Accordingly, an interpretative phenomenological design was employed to access and analyze how participants experience and construct meaning in human-AI interaction.

In-depth interviews provided a reflective space in which participants could articulate their inferential reasoning, intentional attributions, and evaluative judgments regarding AI communication. These accounts were interpreted not as evidence of AI intentionality, but as manifestations of participants' cognitive strategies for achieving pragmatic coherence. In this sense, the methodology supports the theoretical aim of foregrounding human cognition and experience as the central locus of meaning-making in AI-mediated interaction.

## **RESULTS**

The analysis of interview data and interaction documents revealed three interrelated themes that characterize participants' meaning-making experiences in human-AI interaction: (1) the illusion of understanding, (2) the attribution of intention and politeness, and (3) the negotiation of emotional distance accompanied by ethical reflection. These themes do not function independently but collectively illustrate how users pragmatically construct meaning and relational coherence when engaging with language-based AI systems.

### ***The Illusion of Understanding***

Participants consistently reported experiencing what can be described as an illusion of understanding during their interactions with AI chatbots. This illusion emerged when AI-generated responses were perceived as coherent, contextually relevant, and linguistically well-structured, leading users to feel that the system "understood" their questions or concerns. Importantly, participants

were generally aware that AI lacks genuine comprehension; nevertheless, the surface-level plausibility of responses was sufficient to trigger a subjective sense of being understood.

From a cognitive pragmatic perspective, this illusion was not attributed to the AI's internal capacities but to users' inferential reasoning processes. Participants actively bridged informational gaps by supplying contextual assumptions, background knowledge, and intended meanings that were not explicitly encoded in the AI's output. As a result, understanding was experienced as a cognitive achievement on the part of the user rather than as a property of the system.

Several participants noted that this perceived understanding was particularly strong in academic and reflective contexts, where they approached AI interactions with clear expectations regarding relevance and coherence. When these expectations were met, users interpreted the interaction as meaningful, even in the absence of genuine intentionality on the part of the AI.

#### ***Attribution of Intention and Politeness***

A second salient theme concerned the attribution of intention, stance, and politeness to AI systems. Participants frequently described AI responses using interpersonal descriptors such as "helpful," "supportive," "neutral," or "too formal." These evaluations indicate that users implicitly treated AI utterances as if they were produced by an intentional communicative agent.

Politeness attribution played a particularly prominent role in shaping users' interpretations. Participants reported responding more positively to AI outputs that adhered to expected politeness norms, such as indirectness, hedging, and respectful tone. Conversely, responses perceived as abrupt or overly mechanical were interpreted as less cooperative, even when they were informationally accurate.

These findings suggest that users apply human pragmatic norms to AI interaction as part of their meaning-making strategy. The attribution of intention and politeness functioned as a cognitive shortcut that enabled users to stabilize the interaction and render it interpretable within familiar communicative frameworks. Crucially, participants did not interpret these attributes as evidence of AI agency; rather, they recognized them as projections arising from their own interpretive practices.

#### ***Negotiating Emotional Distance and Ethical Reflection***

The third theme highlights participants' negotiation of emotional distance in their interactions with AI, often accompanied by explicit ethical reflection. While some participants described moments of emotional engagement – such as feeling reassured or intellectually supported – most emphasized the importance of maintaining a clear boundary between human and artificial interlocutors.

Participants articulated a deliberate effort to regulate their emotional involvement, particularly in contexts involving personal reflection or decision-making. This regulation was frequently framed in ethical terms, with participants expressing concern about over-reliance on AI, the potential erosion of human judgment, and the risks of attributing excessive authority to algorithmic systems.

At the same time, participants acknowledged the pragmatic usefulness of AI as a non-judgmental conversational partner. The absence of social

consequences was perceived as enabling openness and exploratory thinking. This tension between emotional utility and ethical caution underscores the reflexive dimension of human–AI interaction, in which users continuously negotiate the boundaries of engagement.

### ***Synthesis of Findings***

Taken together, these findings demonstrate that meaning in human–AI interaction is not produced by the AI system itself but is actively constructed through users’ cognitive and pragmatic efforts. The illusion of understanding, the attribution of intention and politeness, and the negotiation of emotional distance all emerge as manifestations of users’ inferential strategies for achieving interpretive coherence.

These themes further indicate that human–AI interaction operates within a hybrid communicative space: one that resembles interpersonal dialogue in form, yet remains grounded in users’ awareness of AI’s non-human status. Meaning-making in this context is therefore best understood as a dynamic and reflexive process shaped by cognitive inference, pragmatic norms, and ethical self-regulation.

## **DISCUSSION**

This study set out to examine how meaning is constructed in human–AI interaction from a cognitive pragmatic perspective, with particular attention to users’ inferential processes, intentional attributions, and relational negotiations. The findings demonstrate that meaning in AI-mediated communication does not originate from the system’s communicative capacities but is actively constructed by users through cognitive inference, pragmatic norm application, and reflexive awareness. In this section, the three core findings are discussed in relation to the theoretical framework and existing literature, highlighting their implications for cognitive pragmatics and human–technology interaction.

### ***Meaning Construction Beyond AI Intentionality***

The finding concerning the illusion of understanding reinforces a central claim of cognitive pragmatics: meaning is not a property of utterances or agents, but an inferential achievement of language users. Participants’ experiences of being “understood” by AI systems emerged despite their explicit awareness that AI lacks consciousness and communicative intention. This paradox underscores the primacy of users’ cognitive engagement in meaning-making.

From a cognitive pragmatic standpoint, the illusion of understanding can be interpreted as the result of successful relevance-driven inference. When AI outputs align with users’ expectations of coherence and contextual appropriateness, users supply missing assumptions and infer communicative relevance, thereby constructing meaning that exceeds the literal content of the AI response. This finding supports arguments that meaning in communication often goes beyond speaker intention, a phenomenon that becomes especially salient in AI contexts where intentionality is structurally absent.

Importantly, this result cautions against attributing pragmatic competence to AI systems themselves. The apparent meaningfulness of AI interaction should be understood as a reflection of human interpretive strategies

rather than as evidence of machine understanding. In this sense, the findings empirically substantiate critiques of anthropomorphic interpretations of AI language use.

### ***Intentional Attribution as a Pragmatic Strategy***

The attribution of intention and politeness to AI systems further illustrates how users draw on familiar pragmatic frameworks to stabilize interaction. Participants' tendency to describe AI responses in interpersonal terms reflects a pragmatic strategy aimed at rendering interaction interpretable and manageable. Rather than indicating a belief in AI agency, these attributions function as cognitive heuristics that facilitate coherence and engagement.

This finding aligns with the concept of the intentional stance, whereby humans attribute mental states to entities in order to predict and interpret their behavior. However, the present study extends this perspective by demonstrating that intentional attribution operates not merely as a predictive tool, but as a meaning-making mechanism within interaction itself. Politeness, in particular, emerged as a salient interpretive cue, shaping participants' evaluations of cooperation, reliability, and usefulness.

Within cognitive pragmatics, this suggests that pragmatic norms such as politeness are not confined to genuinely social agents but can be mobilized in technologically mediated contexts as part of users' inferential reasoning. The application of politeness norms to AI interaction thus reflects the flexibility of pragmatic competence and its grounding in human cognition rather than in the properties of the interlocutor.

### ***Reflexivity, Emotional Distance, and Ethical Awareness***

The negotiation of emotional distance highlights a reflexive dimension of human-AI interaction that has received comparatively limited attention in pragmatic research. Participants' deliberate regulation of emotional engagement indicates that users are not passive recipients of AI output but active managers of relational boundaries. This reflexivity was frequently articulated in ethical terms, revealing users' awareness of the potential risks associated with over-reliance on AI.

From a pragmatic perspective, this finding suggests that meaning-making in human-AI interaction is not only inferential but also evaluative. Users continuously assess the appropriateness of their engagement, balancing the instrumental and emotional affordances of AI against normative concerns regarding agency, responsibility, and autonomy. This evaluative stance further differentiates human-AI interaction from human-human communication, where emotional engagement is often less consciously regulated.

The presence of ethical reflection also reinforces the argument that AI interaction constitutes a distinct communicative ecology. While AI systems may simulate interpersonal features, users remain acutely aware of the asymmetry between human and artificial agents. Meaning-making, therefore, unfolds within a hybrid space that combines interpersonal form with technological awareness.

### ***Theoretical Implications for Cognitive Pragmatics***

Collectively, the findings contribute to the extension of cognitive pragmatics into the domain of human-technology interaction. By demonstrating that inferential meaning-making, intentional attribution, and pragmatic norm

application persist in interactions with non-intentional agents, this study challenges assumptions that pragmatics presupposes human interlocutors.

At the same time, the results underscore the need to conceptually decenter the AI system in pragmatic analysis. Rather than focusing on what AI “does” linguistically, cognitive pragmatics directs attention to how users interpret, supplement, and regulate meaning. This shift has important implications for future research, suggesting that pragmatic competence should be understood as a human cognitive capacity that remains operative even in technologically mediated contexts.

#### *Limitations and Directions for Future Research*

While this study offers qualitative insight into the cognitive pragmatic dynamics of human–AI interaction, several limitations should be acknowledged. The phenomenological design prioritizes depth over breadth and does not aim for statistical generalization. Additionally, the findings are grounded in participants’ self-reported experiences, which may be shaped by retrospective reflection.

Future research could extend this work by integrating longitudinal designs, cross-cultural comparisons, or experimental approaches to examine how pragmatic inference evolves over time or across interactional contexts. Further investigation into specific pragmatic phenomena, such as implicature, stance-taking, or metapragmatic commentary in AI interaction would also deepen understanding of this emerging communicative domain.

## **CONCLUSIONS AND RECOMMENDATIONS**

This study has examined meaning construction in human–AI interaction through the lens of cognitive pragmatics, with a particular focus on users’ inferential processes, intentional attributions, and reflexive engagement. By adopting a qualitative interpretative phenomenological approach, the study demonstrates that meaning in AI-mediated communication does not reside in the AI system itself but is actively constructed by users through cognitive inference and pragmatic reasoning.

The findings show that users experience an illusion of understanding when AI outputs align with expectations of coherence and relevance, attribute intention and politeness as pragmatic strategies for interpretive stability, and consciously negotiate emotional distance through ethical reflection. Together, these processes reveal that human–AI interaction operates within a hybrid communicative space: one that resembles interpersonal dialogue in form, yet remains grounded in users’ awareness of AI’s non-human status.

These results underscore a central claim of cognitive pragmatics – that meaning emerges from human inferential activity rather than from linguistic form or speaker intention alone. In AI contexts, this claim becomes especially salient, as communicative intentionality is structurally absent while meaningful interaction nevertheless persists. The study thus contributes to a growing body of scholarship that reframes human–AI interaction as a site of human cognition and pragmatic agency, rather than machine understanding.

## **FURTHER STUDY**

### ***Theoretical Implications***

Theoretically, this study extends the scope of cognitive pragmatics beyond human-human interaction by demonstrating its applicability to technologically mediated communication. The findings challenge the assumption that pragmatic analysis presupposes a human interlocutor with communicative intention, showing instead that pragmatic processes remain operative even when intention is attributed rather than possessed.

By foregrounding users' inferential reasoning and metapragmatic awareness, the study also contributes to ongoing debates concerning anthropomorphism and intentionality in AI discourse. Rather than interpreting human-like interaction as evidence of AI agency, the findings emphasize the role of human cognitive strategies in sustaining meaningful communication. This perspective encourages a conceptual shift in pragmatics from analyzing communicative competence as an attribute of speakers or systems to understanding it as a capacity enacted by language users.

### ***Practical Implications***

From a practical standpoint, the findings carry important implications for digital literacy, education, and the design of AI systems. First, the recognition that meaning in AI interaction is user-constructed highlights the need for critical digital literacy that equips users to reflect on their own interpretive practices, particularly in academic and decision-making contexts. Encouraging users to recognize the limits of AI understanding may help mitigate over-reliance and misplaced trust.

Second, in educational settings, AI should be positioned as a cognitive tool that supports reflection and inquiry rather than as an authoritative source of meaning or judgment. Educators can leverage AI interaction to foster metacognitive awareness, prompting learners to examine how they interpret, evaluate, and negotiate meaning in AI-mediated communication.

Finally, for AI designers and policymakers, the findings suggest that ethical AI development should attend not only to technical performance but also to users' interpretive experiences. Transparency in system design, careful calibration of conversational tone, and explicit signaling of system limitations may help users maintain appropriate relational and ethical boundaries in their interactions with AI.

### ***Concluding Remark***

In conclusion, this study argues that the pragmatics of human-AI interaction is fundamentally a pragmatics of human cognition. Meaning, intention, and relational coherence in AI-mediated communication are not properties of intelligent machines, but outcomes of human inferential work. Recognizing this distinction is essential for advancing theoretical understanding, guiding responsible AI use, and fostering reflective human technology relationships in an increasingly AI-mediated world.

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