Conversational AI with a Personal Touch: Effects of Personalization Distinctiveness and Context

FNU Al-Amin and Wi-Suk Kwon, Auburn University, USA

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Background and Purpose

Conversational artificial intelligence (CAI) refers to technologies that enable machines to interact with users through text or speech (Saka et al., 2023). CAI agents, such as chatbots, have greatly transformed customer service, arguably handling up to 70% of regular consumer queries (Uzoka et al., 2024). In addition, personalized CAI agents may learn from user-specific information derived from previous interactions and adapt their service dynamically to user preferences (Ma et al., 2021). For example, when a customer request for exchanging a recent purchase, a CAI agent may recognize the customer, recall their recent purchase history, confirm exchange eligibility, check inventory availability by recalling the customer's size preference, pre-fill the exchange form with their information without the customer's input while addressing them by name for a tailored experience. Personalized CAI has been shown to enrich social presence and create a sense of being understood and appreciated (Ma et al., 2021), thereby shaping user experiences and boosting user engagement (Lin & Chang, 2023). However, little research exists on what varying CAI personalization strategies can be used and how they impact consumer responses.

Addressing this literature gap, we propose *distinctiveness* as a potential CAI personalization strategy factor which may impact consumer experiences. Distinctiveness, a construct borrowed from attribution theory (Kelley, 1967), is defined in this study as how a brand's CAI agent's level of personalization changes across different contexts or situations. Equipping a CAI agent with personalization capabilities requires a costly investment (Kalinin, 2024). Further, excessive personalization can lead to privacy concerns to some consumers (Soni, 2024). Therefore, some businesses may choose to personalize their CAI agent in only a few limited-service contexts (i.e., *distinctive*) rather than providing personalization consistently across all service contexts (i.e., *not distinctive*). Therefore, through the lens of attribution theory (Kelley, 1967), this paper will first propose how consumers' attribution of motivations for a CAI agent's personalization impacts their attitude toward the agent, which in turn drives their engagement with the agent. Furthermore, we will conceptualize how the distinctiveness of CAI personalization impacts consumers' motivational attributions and how the context of the distinctively personalized CAI service may further alter these attributions (see Figure 1 for a conceptual model).

Theoretical Framework and Propositions

A low level of personalization involves delivering generic service relying on standard protocols without customer-specific adjustments, whereas a high level of personalization utilizes customer data, such as identity and preferences, to create

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tailored services specific to each user (Mendia & Cuautle, 2022). Personalized CAI agents have been shown to resolve queries more swiftly and reduce wait times (Nwokedi & Nwafor, 2024), thus enhancing the customer experience. Attribution theory suggests that individuals attribute another person's helping behavior to either situational motivations (i.e., external influences or rewards) or dispositional motivations (the person's inherent desire or satisfaction) (Deci & Ryan, 2000). In the context of CAI-customer interactions, a CAI agent's personalized services may be attributed to dispositional motivations (i.e., the firm's inherent desires to serve customers better) or situational motivations (i.e., pressure to make profits). Further, a plethora of attribution theory literature (e.g., Brun et al., 2021) has revealed the attribution-cognition-behavior linkage in which causal attributions of a person's behavior impact individuals' evaluation of the person, which in turn drives their behavior toward the person. Therefore, we propose that **(Proposition 1)** *consumers' perceived dispositional (situational) motivations of a CAI agent's personalized service positively (negatively) influence their attitude toward the CAI agent, which in turn positively (negatively) influences their engagement with the CAI agent.*

According to attribution theory (Kelley, 1967), one of the key factors individuals use to make causal attributions about another's behavior is its distinctiveness (i.e., whether the behavior occurs only in a certain situation). Varying levels of distinctiveness can be manifested in personalized CAI services in that a CAI agent may personalize consistently in every interaction context (*not distinctive*) or distinctively only in a certain interaction context (*distinctive*). A distinctive behavior, which is context-dependent, tends to be attributed to situational motivations rather than dispositional motivations (Zuckerman & Feldman, 1984). Given this theoretical reasoning, when a CAI agent personalizes services non-distinctively, consumers may be more likely to perceive it to be inherently motivated to care for them. Conversely, when personalization occurs distinctively, the behavior becomes more variable, which may lead to situational attributions (i.e., pressure for the firm to make profits). Therefore, we propose that **(Proposition 2)** *consumers perceive a) higher situational motivations and b) lower dispositional motivations when CAI agents' personalization is distinctive (vs. not distinctive).*

Furthermore, the type of context in which a distinctive personalization occurs may impact consumers' causal attributions. Specifically, when a personalized CAI service is distinctively provided only for transactional queries (e.g., helping customers make a purchase) and not for other queries, the close association of the transactional context to profitability may facilitate the attribution to situational motivations. However, if a CAI agent's distinctive personalization is offered in response to informational queries (e.g., store hours), which are less related to profitability, the personalized service may be perceived as a more inherently caring action. Therefore, **(Proposition 3)** *consumers perceive a) higher situational motivations and b) lower dispositional motivations when CAI agents' distinctive personalization occurs in a transactional (vs. informational) assistance context.*

Conclusion and Implications

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The proposed conceptual model extends the applicability of the attribution theory, particularly the constructs of distinctiveness and dispositional and situational motivations, to understanding consumers' responses to CAI personalization. This conceptualization offers an innovative perspective to future researchers who will examine the CAI personalization phenomenon. Findings from studies that empirically examine the constructs and propositions in this paper will hold significant importance across various contexts, including retail, customer service, and brand management. They will be particularly relevant for brands looking to invest in their CAI systems' personalization capacity to facilitate more authentic and meaningful interactions with consumers. Future research also may expand this line of investigation by examining situational factors, such as product or service type, or personal factors, such as trust in technology, familiarity with AI, and privacy concerns, could play a role in shaping how consumers attribute motivations to personalized CAI services.

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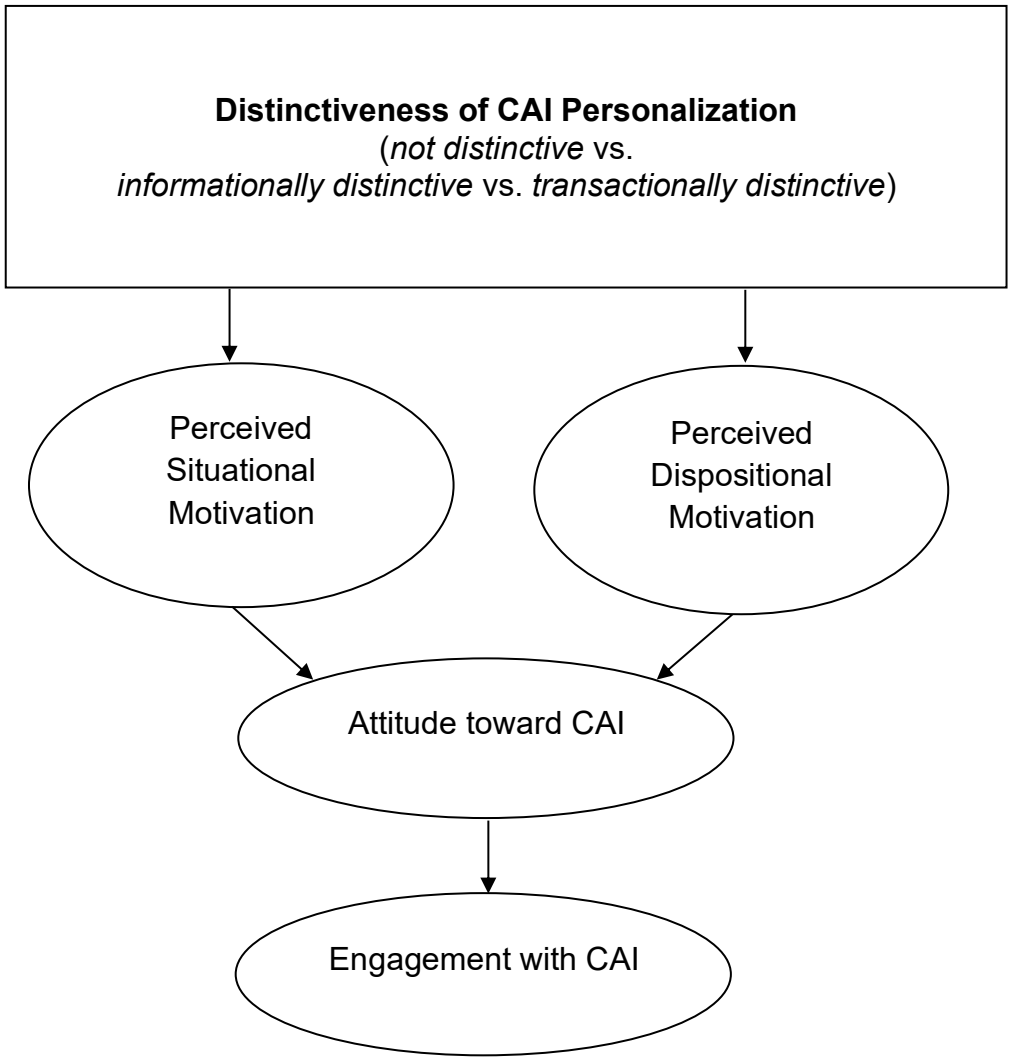
Figure 1. *A Conceptual Model*



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