How Can “I” Help “You”? The Impact of Personal Pronoun Use in Customer-Firm Agent Interactions

Grant Packard
Sarah G. Moore
Brent McFerran

Grant Packard (gpackard@wlu.ca) is assistant professor of marketing, Laurier School of Business and Economics, Wilfrid Laurier University, 75 University Avenue, Waterloo, ON N2L 3C5. Sarah G. Moore (sarah.g.moore@ualberta.ca) is assistant professor of marketing, Alberta School of Business, University of Alberta, Edmonton, AB T6G 2R6. Brent McFerran (brent.mcferan@sfu.ca) is assistant professor of marketing at the Beedie School of Business, Simon Fraser University, 8888 University Drive, Burnaby, BC, V5A 1S6. The authors thank Jim Bettman for his pronoun wizardry and an anonymous firm for providing the data used in study 5.
Abstract

In responding to customer questions or complaints, should firm agents indeed “put the customer first”? We address this question from a linguistic perspective, focusing on personal pronoun use in customer-firm interactions. While customer-orientation theory and the lay beliefs captured in the present research suggest that firm agents should focus on “you” (the customer) in these interactions, we find that increased self-centered references to “me” (the firm agent) are more beneficial. Five studies using lab and field data reveal increases in customer satisfaction, purchase intentions, and actual purchase volume when firm agent responses to customer inquiries or complaints contain an increased frequency of “I” (first-person singular) pronouns, but not when they contain an increased frequency of “you” (second-person singular) or “we” (first-person plural) pronouns. Building on prior research examining personal pronoun use, we find that perceived empathy and agency mediate the effects of firm agent pronoun use on customer satisfaction and intentions. These findings offer valuable implications for marketers and enhance our conceptual understanding of the impact of subtle language variations on consumers’ perceptions and behavior.

Keywords: language, personal pronouns, customer-orientation, social perception, customer-firm interactions
A central role of marketers is to manage the “speaking terms” of the relationship between firms and their current or prospective customers (Duncan and Moriarty 1998; Vargo and Lush 2004). This dialogue spans everything from advertising and public relations to customer relationship marketing, and occurs via traditional sales or service interactions with customers in stores, as well as through an array of technology-mediated interactions (e.g., phone, Internet).

A vast literature has examined how marketers might optimize these customer-firm interactions, with a focus on managing firm agent actions. For example, customer satisfaction, purchase intentions, and sales can be increased through agent behaviors toward customers such as adaptive selling (Weitz, Sujan and Sujan 1986), mimicry (Tanner et al. 2008), or flattery (Chan and Sengupta 2010). Similarly, in sales and service settings, firm agents can positively resolve customers’ inquiries or complaints by responding quickly, apologizing, or offering compensation or discounts (e.g., Davidow 2003; Rust and Chung 2006; Zeithaml, Berry and Parasuraman 1996). Customer-firm interactions are also enhanced when firm agents communicate effectively through listening, turn taking, and asking questions (Ingrain, Schwepker, and Hutson 1992; Schuster and Danes 1986).

In contrast to this work on a firm agent’s actions or general communication skills, we ask what impact a firm agent’s specific words might have in customer-firm interactions. While this topic has been neglected in the literature, it appears that marketing managers recognize the importance of a firm agent’s words. Apple has “stop words” that employees are prohibited from saying to customers, as well as specific scripts and phrases that employees are encouraged to use with customers (Chen 2011). In contrast, online retailer Zappos does not have scripts for its agents, allowing each to create a “personal emotional connection” in conversations with customers (Hsieh 2010). Despite their different philosophies on language use, both firms invest in managing their employees’ “speaking terms” when responding to customers. In this vein, we offer an empirical examination of how the language used by firm agents (employees) in customer-firm interactions influences customer attitudes and behaviors.

To do so, we focus on personal pronouns: first-person singular (I, me, mine), second-person singular (you, your, yours), and first-person plural (we, us, our). By using certain personal pronouns, a firm (or firm agent) can linguistically focus a conversation (Gordon, Grosz

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1 For brevity, we refer to these personal pronoun categories as “I”, “you”, and “we” pronouns throughout the paper. The category examples shown here are not exhaustive. See Appendix 3.
and Gilliom 1993) on the customer (“Thank you for contacting Apple.”), the firm (“We are happy to help.”), or the firm agent herself (“I am happy to help.”). We focus on the impact of firm agents’ linguistic self-references—their use of “I” pronouns—when responding to customers, comparing this to their use of “you” or “we” pronouns. In so doing, we answer three questions: 1) What do firms and customers believe is optimal in terms of personal pronoun use?, 2) What pronouns do firms actually use?, and 3) What pronouns should firms use?

To our knowledge, our examination is the first to examine specific language use in firm agent interactions with customers. In contrast to prior research reporting a positive impact of “we” pronouns on consumer’s perceptions of individuals or brands (Fitzsimons and Kay 2004; Sela, Wheeler and Sarial-Abi 2012), we present an important context in which increased use of “I” pronouns are beneficial. Further, rather than focusing on pronouns as indicators of social or psychological states (Pennebaker 2011), we contribute insight into the consequences of language use in social interactions. We also offer a theory-driven explanation for why the positive effects of “I” pronouns occur (perceived empathy and agency). Finally, we contribute practical insights that marketers can implement to enhance their sales and service interactions with customers. In doing so, this research challenges conventional marketing wisdom by demonstrating how and why the linguistic manifestation of a “customer first” orientation may not be optimal for firms.

Language Use in Customer Interactions

A growing body of research demonstrates the importance of words in several areas of marketing. Specific language use has been shown to impact individuals’ self-control and motivation (Patrick and Hagtvedt 2012; Senay, Albarracín and Noguchi 2010), senders and receivers of word of mouth (Chen and Lurie 2013; Moore 2012; Schellekens, Verlegh and Smidts 2010) and consumers’ responses to advertising (Kronrod and Danziger 2013; Kronrod, Grinstein and Wathieu 2011; Sela et al. 2012).

Building on this work, we examine personal pronouns, which play a central role in language as the “currency of social processes” (Pennebaker 2011) and as strategic negotiators of the social space between conversation partners (Fortanet 2004). Linguistic psychologists have demonstrated that the type and volume of specific pronouns as a proportion of the total words in a body (corpus) of text can indicate psychological states, intentions, and social relations. In fact, pronoun use can be more predictive of these variables than linguistic content analysis at the
phrase, sentence, or narrative level (Chung and Pennebaker 2007; Pennebaker 2011). From a social interaction perspective, personal pronouns are important indicators—and influencers—of the relationships between conversation parties (Agnew et al. 1998; Fitzsimons and Kay 2004; Sela et al. 2012), and signal the social focus of a dialogue on one party (“I”), the other (“you”), or both (“we”; Gordon et al. 1993; Pennebaker 2011). Given their importance in social processes, personal pronouns are likely to be relevant for firm agent language use in customer-firm interactions. But what personal pronoun focus or emphasis is optimal?

On one hand, prevalent managerial philosophies imply heightened use of a particular personal pronoun category. Customer-orientation theory states that to maximize customer and firm outcomes, firm agents should prioritize the needs and wants of the customer in everything they do (Saxe and Weitz 1982). A strong customer-orientation enhances customer attitudes and intentions (Brady and Cronin 2001) and has been empirically linked to increased sales (Homburg, Hoyer and Fassnacht 2002) and firm performance (Ramani and Kumar 2008). In addition, a flood of managerial publications (e.g., Basch 2003; Evenson 2011) address the merits of a strong customer-orientation. This philosophy seems to have attained the status of conventional wisdom in marketing circles as suggested, for example, by the popularity of Ray Kroc’s famous advice, “Always put the customer first,”2 and the emergence of counter-arguments such as The Customer Comes Second (Rosenbluth and Peters 2002) and Employees First, Customers Second: Turning Conventional Management Upside Down (Nayar 2010).

While customer-orientation theory and managerial literature suggest that firm agents should put the customer first in everything they do, should what firm agents say also follow this rule? At the level of word use, customer-orientation theory suggests that firm agents should be linguistically focused on “you,” the customer, in verbal interactions. Indeed, since personal pronouns signal the focus of a dialogue (Gordon et al. 1993), firm agent use of “you” pronouns (e.g., “How do those pants fit you?”) might signal interest and involvement in the customer’s issues, while the use of “I” pronouns might be expected to signal neglect of the customer (e.g., “I have a pair of those pants!”) or a more profit-focused sales motivation (e.g., “I don’t think those pants will be available much longer!”). Thus, as customer-orientation theory implies, greater use of “you” and/or decreased use of “I” pronouns in customer-firm interactions may be beneficial.

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2 A Google Books search for published books containing the exact phrase “Put the customer first” produced over 18,000 results as of May 29, 2014.
Some prior research supports this theorizing. Specifically, language high in “you” pronouns suggests a focus on and desire to satisfy an interaction partner (Chung and Pennebaker 2007; Pennebaker 2011). Individuals who are motivated to impression manage by accommodating others’ desires use “you” pronouns at a higher rate (e.g., high self-monitors; Ickes, Reidhead and Patterson 1986). Increased use of “you” pronouns also contributes to the perception that the speaker views a situation from the audience’s point of view (Campbell, Riley and Parker 1990). In contrast, “I” pronouns are used more when people are motivated to draw attention to the self (Rude et al. 2004), create a positive impression for others (Barasch and Berger 2014; Berger 2014), or indicate expertise (Packard and Wooten 2013). People in physical or emotional distress use a high proportion of “I” pronouns to reflect their internal state and draw attention to their own plight (Chung and Pennebaker 2007; Lyons, Mehl and Pennebaker 2006; Rude, Gortner and Pennebaker 2004). “I” pronouns are also used more frequently by people high in traits linked to competitive self-interest (e.g., Machiavellianism; Ickes et al. 1986). This perspective suggests that heavy “I” pronoun use by the firm agent may be detrimental for customer satisfaction and purchase intentions, while more customer-oriented “you” pronoun use may enhance these outcomes.

On the other hand, this same literature offers reasons why firm agent self-references (“I” pronouns) during an interaction might be beneficial, and why a customer focus (“you” pronouns) might be detrimental for these same outcomes. In addition to egotistic self-centeredness, “I” pronouns can indicate active listening, attention, or understanding, which might signal empathy to customers (e.g., “I’m happy to help”; Ickes et al. 1990; Wales 1996). “I” pronoun use can also indicate personal involvement in a situation, regardless of which party is the focus of the interaction (Cohn, Mehl and Pennebaker 2004; Scherwitz, Berton and Leventhal 1978). This might signal agency to customers, such that the firm agent is willing and able to take responsibility or action on their behalf (e.g., “Should I go find a different size in those pants?”; Ahearn 2001; Chung and Pennebaker 2007; Kashima and Kashima 2003). Thus, “I” pronoun use by the firm agent may signal emotional (empathy) and behavioral (agency) engagement with the customer’s inquiry or complaint, and could have a beneficial impact. In contrast, second-person singular pronouns can be used to blame the interaction partner (e.g., “You didn’t follow the instructions.”; Buttny 1993; Simmons, Gordon and Chambless 2005) and could be interpreted as the firm or agent abdicating responsibility or shifting it to the customer (Bitner 1990). In this
case, heavy “you” pronoun use in customer-firm interactions may be perceived as accusatory and have a detrimental impact on customer attitudes and intentions towards the firm.3

To sum, the literature provides contrasting predictions on whether to emphasize “I” versus “you” pronouns in customer-firm interactions. The relative prevalence of these pronouns in the marketplace is also not clear. The present research examines these issues.

We note that while our conceptual discussion to this point has focused on “I” and “you” personal pronouns, firm agents also frequently use “we” personal pronouns in their interactions with customers. This first-person plural pronoun category is particularly complex. “We” can encompass the audience only (“We must eat our broccoli, children.”), the speaker and audience (“We’ll figure this out together.”), or a group that excludes the audience (“We’re happy to help.”; Inigo-Mora 2004; Pennebaker 2011; Wales 1996). These latter two uses seem the most likely in a customer service context, and suggest potentially opposing effects of “we” pronouns.

Inclusive “we” pronouns that refer to the customer and firm agent together may have beneficial effects. Greater use of “we” pronouns indicates psychological closeness in dyads (Duck 1992; Fitzsimons and Kay 2004) and positively impacts marital happiness (Sillars et al. 1997; Seider et al. 2009) and satisfaction in consumer-brand relationships (Sela et al. 2012). In contrast, exclusive “we” pronouns that refer to the agent and the firm—and not to the customer—might have detrimental effects, as with self-focused “I” pronoun use. Similar to “I” pronouns, exclusive “we” pronouns may serve to distance the firm agent from personal involvement or action with the customer (e.g., “We have a policy against that.”), reducing the potential for increased perceptions of firm agent empathy or agency. Data reported below (studies 2 and 5) reveal that this exclusive “we” is most commonly used by firm agents, suggesting that “we” pronouns may not be as beneficial for customer satisfaction and purchase intentions as “I” pronouns.

We (the authors) begin to address the use of this personal pronoun category—along with “you” and “I” pronouns—in a pilot study by asking consumers and employees what language is optimal in customer-firm interactions. Pilot results (available in Appendix 1) reveal that, consistent with managerial theory and practice, managers, customer service representatives, and consumers all believe that firm agents should talk more about the customer (and less about

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3 Context dependence of personal pronoun use is controlled for and/or minimized through experimental stimuli in most prior research and in the studies presented here.
themselves) when responding to customers. However, two questions remain. First, setting aside what people believe is optimal, what pronoun emphasis do firm agents actually use? Second, is increased “you,” “we” or “I” pronoun use optimal in reality? We address both questions in the studies that follow.

**Overview of Studies**

In five studies, we examine (1) firm agent personal pronoun emphasis in practice and (2) how firm agent “I” pronoun use impacts consumers compared to firm agent “you” and “we” pronoun use. Study 1 uses real-world language samples to show that in their interactions with customers, firm agents emphasize “you” (the customer) and “we” (the firm) while downplaying “I” (the firm agent). Study 2 provides an initial test of the consequences for customer satisfaction and purchase intentions when firm agents use first person singular self-references (“I”) rather than plural self-references as the agent and firm (exclusive “we”). Study 3 provides an assessment of the relative effects of firm agent use of each pronoun category (“I,” “you,” and “we”) on customer outcomes. Study 4 replicates the positive effects of “I” and compares it with different grammatical cases of “you” pronoun use to investigate a possible downside of “you” pronoun use. Studies 3 and 4 also examine the process by which our effects occur; we test perceptions of firm agent empathy and agency as mediators. Finally, study 5 offers preliminary evidence of external validity. We use field data—customer-firm email interactions—to show a link between customers’ purchase behavior and firm agents’ personal pronoun use, controlling for numerous covariates.

Our empirical setting is technology-mediated customer service interactions (e.g., email), a setting that holds strong managerial relevance. Nearly half of consumers report it as their preferred way of interacting with firms (44%; Charlton 2011), and over 90% of U.S. firms support email-based customer-firm interactions, with a majority of these also supporting other online mechanisms (e.g., social media, forums; Dutta 2012). We consider the generalizability of our findings to other customer-firm interaction settings in the general discussion. Within this setting, we also assess both customer inquiries and complaints to provide a robust test of two key types of customer-firm interactions (Bowman and Narayandas 2001; Bolton 1998).

**Study 1: Do Firm Agents Focus on “You” the Customer?**
Building on our pilot study (Appendix 1), which demonstrated a belief among customers and managers that firms should emphasize “you” pronouns in customer-firm interactions, study 1 examines which personal pronouns firms actually emphasize in practice.

Our conceptual discussion on personal pronouns suggests three potential strategies that firm agents could use to respond optimally to customer inquiries and complaints. First, firm agents could refer to the self (“I”) to indicate empathy or agency toward the customer (Ickes et al. 1990; Kashima and Kashima 2003). Second, rather than using “we” to represent the agent and firm, firm agents could use “we” to create a social relationship and signal that the customer and agent are “in it together” (Sela et al. 2012). Third, firm agents could put the customer and their needs first through a linguistic “you” focus (Campbell et al. 1990; Inigo-Mora 2004).

As managerial theory and the lay beliefs revealed in our pilot study suggest that firm agents will pursue the third strategy, we expect to observe a higher rate of “you” relative to “I” pronouns in firm responses to customers. The pilot study also suggests that we should see a fairly high proportion of “we” pronouns—but, as discussed, these personal pronouns should likely refer primarily to the firm and agent (exclusive “we”), rather than the agent and customer.

Participants, design, and procedure

We constructed two bogus customer emails—an inquiry and a complaint—and sent these to a sample of twenty firms each (total target N = 40) randomly selected from the top 500 online retailers in 2012 as identified by Internet Retailer, a leading trade magazine.4 The inquiry asked about the company’s international shipping and returns policy, while the complaint expressed frustration with the website’s usability for a touchscreen tablet (see Appendix 2 for full text).

One of the two bogus customer emails were sent to each of the 40 selected firms using a webmail account created for this purpose by the researchers. Two firms did not offer web/email-based customer support and seven failed to respond within two weeks. Nine more firms were randomly selected to achieve the predetermined sample size of twenty for each interaction type. All nine additional firms responded, delivering our total sample of 40.

Results

4 https://www.internetretailer.com/top500
We assessed personal pronoun use in two ways. First, for each firm response, we coded whether or not each pronoun category was used (yes/no). Second, we used Linguistic Inquiry and Word Count (LIWC; Pennebaker et al. 2007), an application common in research leveraging linguistic psychology variables, to assess use of the three personal pronoun categories in each response. For a given corpus of text (a firm response), LIWC counts the incidence of words in each personal pronoun category, and adjusts this count for the total number of words in the target corpus. The LIWC statistic can thus be interpreted as the proportion of words in a corpus that are represented in the dictionary for that category (see Appendix 3 for the words LIWC counts in each personal pronoun category). We use LIWC for our personal pronoun category statistics for all subsequent studies in this manuscript.

**Firm agent personal pronoun use.** Consistent with the tenet of “putting the customer first,” while “you” pronouns referring to the customer appeared in nearly 97.5% of firm responses, “I” pronouns referring to the firm agent were present in fewer than half (40.0%) of the firm agent responses ($\chi^2(1) = 26.91, p < .001$). This pattern was observed for firm agent responses to the customer inquiry (“I” = 40% vs. “you” = 95%; $\chi^2(1) = 26.91, p < .001$) and to the complaint (“I” = 50% vs. “you” = 100%; $\chi^2(1) = 26.91, p < .001$). Indeed, the relative incidence of the three personal pronoun categories did not vary across the inquiry and complaint samples for “I” (40% vs. 50%; $\chi^2(1) = .40$, NS), “you” (95% vs. 100%; $\chi^2(1) = 1.03, p > .30$) or “we” pronouns (100% vs. 100%; $\chi^2(1) = 0$, NS).

As for the LIWC statistics, “I” pronouns were used less frequently than either “you” (“I” = .94 vs. “you” = 6.04; $t(39) = 12.35, p < .001$) or “we” (“we” = 4.83; $t(39) = 6.68, p < .001$) pronouns in the full sample. The relative absence of self-references by the firm agent was sustained whether firm agents were responding to the customer inquiry (“I” = .80 vs. “you” = 4.94, $t(19) = 6.86, p < .001$; “I” = .80 vs. “we” = 3.28, $t(19) = 3.77, p < .01$) or complaint (“I” = 1.07 vs. “you” = 7.14, $t(19) = 12.40, p < .001$; “I” = 1.07 vs. “we” = 6.37, $t(19) = 6.13, p < .001$). Summary statistics are provided in Table 1 (following References).

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5 See Tausczik and Pennebaker (2010) for a review of the development of and psychometric properties of LIWC, as revealed in its use in over 400 peer-reviewed publications (as of June 2014).

6 We also asked the sample in the pilot study what pronouns they believe firms do use (in addition to what they believe should be used). Results exactly replicate the reported “should” results, suggesting it is unlikely that service agents are using “you” pronouns unknowingly.
Personal pronoun use in comparison samples. While the results above suggest that firm agents linguistically emphasize “you” (the customer) in their responses, this focus may simply be consistent with natural language use. To assess this possibility, we compared the sample obtained in this study to other linguistic corpuses, including a large natural language dataset (N > 700,000) and an Internet-based consumer forum (see Appendix 4). The current sample of firm agent language use is inconsistent with these natural language samples, with a higher proportion of “you” and a lower proportion of “I” pronouns. We next obtained samples where, as with our firm agent sample, a customer-orientation might be relevant. We used a sample of 95 telephone interactions from the online retailer who provided the data in study 5 and a sample of 80 advice columnist responses from four major syndicated advice columns. The current sample showed language use consistent with these customer-service samples, with a similarly heavy emphasis on “you” pronouns and a lighter emphasis on “I” pronouns relative to natural language use.

Discussion

In sum, consistent with our predictions, we see significantly lower use of “I” pronouns relative to “you” and “we” pronouns in real firm agent responses to a bogus customer inquiry or complaint. When it comes to personal pronoun use in customer-firm interactions, firm agents linguistically “put the customer first.” This pattern of pronoun use differs from the global “natural language” mean (Pennebaker et al. 2007) and from consumer responses to one another in an online setting, where “I” pronouns predominate. However, in samples where a customer-orientation is relevant, we find a similar pattern—an emphasis on “you” pronouns—replicating the sample in the current study.

We have so far found evidence consistent with a firm agent strategy of increased use of “you” pronouns and inconsistent with a strategy of increased use of “I” pronouns. As noted, a third strategy might involve firm agents using “we” to refer to the firm agent and customer in union, suggesting that the two parties are engaged in shared effort towards a common goal. However, content analysis of the 40 firm responses from the present study and a random sample of 100 firm responses taken from study 5 reveals that firm agent use of “we” pronouns referred to the agent and firm (exclusive “we”) in 100% of the 40 cases in this study and 98% of cases sampled from study 5 data.
While managerial theory, lay beliefs revealed in the pilot study, and study 1 results suggest that firm agents should (and do) focus on “you” (the customer) and “we” (the firm and/or its agents) over “I” (the agent) in customer-firm interactions, is this necessarily optimal? Our next study provides an initial test of this question, examining whether firm agents’ tendency to refer to themselves using “we” rather than “I” impacts consumer perceptions of the agent and firm.

**Study 2: “I” vs. “We” Using Real Firm Agent Responses**

Study 2 used the real firm email responses from six of the companies sampled in study 1 (three inquiries and three complaints). The six firm agent responses were selected to cover a broad range of product categories and to be representative of the base rates of personal pronoun use of the larger sample of the 40 firms from study 1 (Appendix 5). We then modified the actual firm responses to increase “I” pronoun use relative to “we” pronoun use in a manner intended to minimize potential changes in meaning (Appendix 6). We aim to test how increased “I” pronoun use by firm agents—versus firm and agent references using the exclusive “we”—affects customer attitudes and intentions toward the firm in a relatively externally valid context.

**Participants, design, and procedure**

Canadian undergraduates participated for partial course credit (N = 211). Participants were asked to imagine themselves as the customer in each of two unrelated customer-firm interactions—an inquiry and a complaint. Participants’ first names were collected and inserted into the customer’s initial communication to the firm and the firm’s response to enhance their involvement in the scenario. Each participant saw one of three customer-firm inquiry interactions and one of three customer-firm complaint interactions (order randomized). Participants evaluated each of these independently, resulting in approximately 35 participants per condition.

Any information identifying the real firm was removed from the original responses, and where appropriate, replaced with the fictional firm name Shopsite.com. Firm agent response condition was manipulated by using either the original firm response from study 1 or a modified version. In the modified response, “we” pronouns were replaced with “I” pronouns when this did not otherwise change the meaning of the sentence. For example, “We thank you for understanding” can be modified to “I thank you for understanding,” but “We do not offer international shipping” cannot be modified to “I do not offer international shipping,” as it is the
firm that offers free shipping. Sample stimuli are presented in Appendix 6. This resulted in a mixed design, with interaction type (inquiry, complaint) as a within-subjects factor, and firm replicate (1, 2, or 3) and firm agent response (original, modified) as between-subjects factors across each of the two interaction types.

After reading the scenario, participants indicated their satisfaction with the person who had responded to their email and their purchase intentions toward the firm. Satisfaction was assessed using three items (“I am satisfied with my overall experience with this person;” “As a whole I am not satisfied with the response provided by this person”, “How satisfied are you with the quality of service provided by this person?”; $\alpha = .77$). Purchase intentions were measured with three items (“In the future, I would purchase from Shopsite.com;” “If I was in the market for the kind of product they sell, I would use Shopsite.com,” “In the future, I would not use Shopsite.com again”; $\alpha = .80$). Items were adapted from Maxham and Netemeyer (2002) and used 7-point scales (1 = not at all, 7 = very much).

**Results**

Our primary independent variable of interest is the firm agent response condition, where we test for changes in both satisfaction with the agent and purchase intentions from the original “we” response to the modified “I” response. We assess the robustness of any such effect across customer-firm interaction type (inquiry and complaint) and across the six replicates.

An omnibus ANOVA indicated a significant main effect of firm agent response (original, modified) on satisfaction with the agent ($F(1, 405) = 39.95, p < .001$) and purchase intentions ($F(1, 404) = 25.95, p < .001$). This model also revealed a marginal main effect for the six replicates from our sub-sample on satisfaction ($F(5, 405) = 2.14, p < .10$) and purchase intentions ($F(5, 404) = 2.13, p < .10$). This variation across replicates is of little empirical interest given there was no interaction of replicate with firm agent response condition for either dependent measure ($Fs < 1$). As such, this firm-level variation is not discussed further. There was also no effect of the order in which the two interaction types were presented to participants on either satisfaction with the firm agent ($F < 1$) or purchase intention ($F(1, 414) = 1.25, p = .26$).

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7 In studies 3 and 4 we use experimenter-constructed content, which provides a cleaner test but trades off the external validity afforded here.
The omnibus test revealed an improvement in agent satisfaction and purchase intentions for the modified “I” firm response ($M_{\text{satisfaction}} = 5.32; M_{\text{intentions}} = 5.07$) relative to the original “we” firm response ($M_{\text{satisfaction}} = 4.48; M_{\text{intentions}} = 4.40$). We present means and simple comparisons for the original and modified firm response for each of the six replicates in Table 2 (following References). As shown in the table, the positive effect of “I” pronoun use in the modified response condition is revealed in heightened customer satisfaction across all six firms, and in increased purchase intentions for five of the six firms. We speculate that the non-significant result for purchase intentions in the Firm F replicate is related to long purchase cycles for the automotive category.

**Discussion**

Study 2 demonstrates that simply changing “we” to “I” pronouns in real firm agent responses improves customer satisfaction and purchase intentions after inquiries and complaints. We have suggested that these results may be due to increased perceptions of firm agents’ agency and empathy, a mechanism we will test in studies 3 and 4. However, alternate mechanisms could also explain the improvements for “I” relative to “we” pronoun use observed in this study. If the modified (“I”) firm responses are viewed as more or less expected or typical than the original (“we”) responses, our results might be explained by conversational norms or expectancy violations (Kronrod et al. 2011; Kronrod and Danziger 2013). To assess this, we used a separate sample from the same participant pool to confirm that our modified responses were not perceived to be less typical than the original responses, ruling against these alternatives (Appendix 7).

We note that in the current study, to provide a clean test of “I” versus “we” self-references, we did not reduce the strong emphasis on “you” pronouns observed in real firm agent email responses. However, as the use and impact of “you” as well as “I” pronouns is a key component of our investigation, study 3 uses more controlled stimuli to comprehensively assess how firm agent emphasis on each of the three pronoun categories (“I”, “you”, “we”) influences customer attitudes and intentions. Given the consistent results we have seen thus far for firm agent pronoun use (study 1) and participant responses (study 2) across customer inquiries and complaints, we focus on inquiries only in studies 3 and 4. Study 5 revisits both categories.

**Study 3: “I” vs. “You”, “We”, and Control**
In study 3, we expand to more broadly assess the impact of increased “I” pronoun use relative to increased “you” as well as “we” pronouns. We achieve this by manipulating the prevalence of the three personal pronoun categories between-subjects. We further introduce a control condition that minimizes personal pronoun use. This enables a series of planned contrasts that isolate the impact of increased “I” pronoun use relative to other personal pronoun categories.

More importantly, having demonstrated that firms use more “you” pronouns and fewer “I” pronouns compared to consumers and to natural language samples (study 1), and that increasing the use of “I” pronouns in real firm agent responses may enhance consumer satisfaction and purchase intentions (study 2), we now seek evidence of the process underlying this effect. We examine perceived empathy and agency of the firm agent as mediators of the positive effect of increased “I” pronoun use on consumer attitudes and behavioral intentions.

Participants, design, and procedure

Undergraduates at a Canadian university completed the study in return for partial course credit (N = 190). Participants were presented with one of four versions of a hypothetical customer-firm interaction, and were asked to imagine themselves in the scenario. This study used a scenario rather than the real firm responses from study 1 to ensure controlled manipulation of pronoun use across categories, while changing as little other linguistic content as possible. In the scenario, the participant contacted fictional retailer Shopsite.com to request a replacement copy of an online coupon they had lost. The four firm response conditions varied the level of personal pronoun use, emphasizing one of the three key personal pronoun categories (“I,” “you,” “we”) or minimizing personal pronoun use (control). In each firm response condition, we attempted to create personal pronoun use base rates similar to those in the real firm agent emails from study 1. Full stimuli and LIWC statistics for each of the four firm response conditions are provided in Appendix 8. Other than pronoun use, no other meaningful content was altered. For example:

“I”: “Once I receive this info, I can investigate the coupon further.”

“You”: “Once you send this info, your coupon can be investigated further.”

“We”: “Once we receive this info, we can investigate the coupon further.”

Control: “Once this info is sent, the coupon can be investigated further.”
After reading the customer-firm interaction, participants reported their satisfaction with the person who responded to their inquiry ($\alpha = .79$) and their purchase intentions towards the firm ($\alpha = .89$) using the measures from study 2. Next, participants indicated the extent to which a series of words described the firm agent’s empathy toward the customer (understanding, empathetic, concerned) and the agent’s agency on behalf of the customer (acts on my behalf, tries hard to help, takes initiative for me). All items used seven-point scales (1 = Not at all, 7 = Very much). Presentation order was randomized across the six items.

Results

We report planned comparisons for the “I” firm response condition against the other three firm response conditions combined, as well as simple effects of the “I” condition against each alternative. For completeness, we also report the impact of “we” and “you” firm responses relative to the control. All condition means are presented in Table 3 (following References).

“I” versus others. Relative to all other conditions combined, the “I” firm response showed higher satisfaction with the firm agent (4.90 vs. 4.27; $F(1, 188) = 6.62; p = .01$) and marginally higher purchase intentions towards the firm (4.90 vs. 4.41; $F(1, 187) = 3.57, p = .06$).

“I” versus “you.” Relative to the “you” firm response, the “I” firm response produced significantly higher satisfaction with the firm agent (4.89 vs. 4.06; $F(1, 92) = 8.37, p < .01$) as well as a significant increase in purchase intentions (4.91 vs. 4.22; $F(1, 92) = 5.03, p < .05$).

“I” versus control. Relative to the minimized personal pronouns control condition, the “I” firm response significantly increased satisfaction with the agent (4.89 vs. 4.29; $F(1, 92) = 4.94, p < .05$) and marginally increased purchase intentions (4.91 vs. 4.44; $F(1, 92) = 3.46, p = .07$).

“I” versus “we.” Relative to the “we” firm response, the “I” firm response did not have a significant effect on satisfaction with the agent (“I” = 4.89 vs. “we” = 4.48; $F(1, 88) = 1.59, p = .21$) or purchase intentions (“I” = 4.91 vs. “we” = 4.60; $F < 1$), though the means were in the same direction as found in study 2. The process analysis below will reveal a significant, positive indirect effect of “I” relative to “we” pronoun use on these dependent variables.

“We” or “you” versus control. Neither the “we” nor the “you” firm response increased—or decreased—customer satisfaction or intentions relative to control (all $F$s < 1).

Process. The firm agent empathy ($\alpha = .89$) and agency measures ($\alpha = .86$) were assessed as mediators of the relationship between firm agent response (“I,” “you,” “we,” control) and each
of the dependent measures (satisfaction with the firm agent, purchase intentions). Confirmatory factor analysis supported empathy and agency as separate factors ($\Delta \chi^2(1) = 5.31, p < .05$).

We leveraged Preacher and Hayes’ (2008) INDIRECT macro to assess the two predicted mediators in parallel, and to independently contrast the effect of increased “I” pronoun use against each of the two personal pronoun alternatives (“you” and “we”). This resulted in two mediation models. In the first, the independent variable was the “I” condition coded against the “you” condition, with control dummies for the “we” and minimized pronouns control conditions. The second model treated the contrast of the “I” versus “we” conditions as the independent variable while controlling for the “you” and control conditions.

Results for the “I” versus “you” mediation model revealed that, compared to a “you” pronoun emphasis, an “I” pronoun emphasis increased participant perceptions of firm agent empathy ($B = 1.03, t = 3.42, p < .001$) and agency ($B = .98, t = 3.23, p < .01$). Further, both mediators significantly predicted satisfaction with the firm agent ($B_{empathy} = .42, t = 4.93, p < .001; B_{agency} = .30, t = 3.45, p < .001$). Bootstrapping showed that the impact of “I” (vs. “you”) pronouns on satisfaction was mediated by both empathy (CI: .19 – .83, $p < .05$) and agency (CI: .10 – .62, $p < .05$).

The same pattern of results held with purchase intentions as the dependent measure. Empathy ($B = 1.00, t = 3.31, p < .001$) and agency ($B = .93, t = 3.06, p < .01$) were increased with an “I” pronoun emphasis compared to a “you” pronoun emphasis, and increased empathy ($B = .49, t = 5.23, p < .001$) and agency ($B = .27, t = 2.09, p < .01$) predicted increased purchase intentions. Bootstrap confidence intervals again supported mediation by empathy (CI: .19 – .90, $p < .05$) and agency (CI: .06 – .59, $p < .05$).

Notably, the “I” versus “we” model produced slightly different results. Although the agent response emphasizing “I” pronouns resulted in greater empathy than the “we” response ($B = .68, t = 2.22, p < .05$), it produced only a directional benefit in terms of perceived agency ($B = .58, t = 1.88, p < .10$). Similarly, while both empathy ($B = .43, t = 4.93, p < .001$) and agency ($B = .30, t = 3.45, p < .001$) predicted increased satisfaction with the firm agent, bootstrap tests confirmed mediation for empathy (CI: .05 – .63, $p < .05$) but not agency (CI: -.01 – .46, $p > .05$).

The same pattern was found for the “I” versus “we” mediation model with purchase intentions as a dependent measure. Compared to “we” responses, “I” responses led to significant increases in empathy ($B = .65, t = 2.12, p < .05$) and directional increases in agency ($B = .53, t =
While both mediators significantly increased purchase intentions (B_{empathy} = .49 \ t = 5.23, p < .001, B_{agency} = .27, t = 2.90, p < .01), bootstrap confidence intervals showed a significant indirect effect for empathy (CI: .02 – .69, p < .05) but not agency (CI: -.03 – .37, p > .05). We elaborate on this result in the discussion below.

“You” as an alternative explanation. As considered in the conceptual development section, and notable in this study’s stimuli, the shift from “I” or “we” to “you” pronouns may result in a perceived shift of accountability or responsibility from the firm to the customer (e.g., “You need to send this information”). This shift could explain the relative underperformance of the “you” condition. Our measure of the perceived agency of the firm agent’s helps address this possibility. A low agency score would suggest that “you” pronouns lead to perceptions of a negative shift in behavioral accountability towards—rather than a positive focus on—the customer. However, participants did not perceive the firm agent in the “you” condition as any less agentic than in the minimized pronouns control condition (3.85 vs. 4.20; \( F(1, 96) = 1.50, p = .22 \)), reducing the plausibility of this alternative. We examine this further in the next study.

Discussion

Study 3 provided a controlled test of the consequences of firm agent use of “I” pronouns, relative to the other personal pronoun categories and to a minimized pronoun control. Results revealed that self-references (“I” pronouns) by the firm agent improved attitudes toward the agent and behavioral intentions towards the firm relative to “you” pronouns and a minimized pronoun control condition. These latter two conditions did not differ from one another, suggesting that a customer orientation is not damaging in customer-firm interactions—but it is not as beneficial as an increased “I” focus. Process analysis revealed that enhanced perceptions of both empathy and agency underlie the increased effectiveness of “I” pronouns relative to the prescribed emphasis on “you” (the customer) in customer-firm interactions.

In contrast to study 2, this study found no direct effect of “I” versus “we” pronoun use on agent satisfaction or purchase intentions. However, mediation results for the “I” versus “we” model offer some insight into this result. Specifically, the mediation model showed an indirect positive effect of “I” versus “we” pronouns on our dependent measures through empathy, but not through agency. Given that both “I” and “we” pronouns suggest firm-related action, the lack of incremental effects for agency between the two pronouns are perhaps not surprising. In contrast,
increased use of “I” pronouns by the firm agent did enhance perceived empathy, ostensibly by positioning the interaction partner as a more caring individual relative to the larger, more impersonal entity represented by the exclusive “we” (the agent and firm). Thus, it appears that increased use of “I” pronouns operates by enhancing customer perceptions of the firm agent’s feelings (empathy) and behavior (agency), and has more consistently significant effects on customer satisfaction and purchase intentions than do exclusive “we” pronouns. Given that the “we” pronoun condition did not represent an improvement over the control condition for either dependent measure, the perceived empathy linked to “I” pronouns may be the more crucial mechanism through which this pronoun emphasis improves customer-firm agent interactions.

Study 3 also addressed two alternative explanations. We again confirmed that the typicality of firm agent language does not explain our results (Appendix 7), and partially addressed an alternative explanation related to customer agency. However, as discussed above, “you” pronouns may be underperforming in terms of customer satisfaction and purchase intentions because they shift blame or responsibility to the customer. Our next study tests this directly.

**Study 4: Variations in “You” Pronoun Use**

While customer-orientation theory recommends a focus on the needs and wants of the customer, a firm agent focusing too heavily on “you” (the customer) in their personal pronoun use may unintentionally signal blame or attribution of responsibility toward the customer (Chung and Pennebaker 2007; Simmons et al. 2005). Linguistically, this might occur when the firm agent’s use of “you” makes the customer the grammatical subject (or “actor”) rather than the grammatical object (“recipient”) or possessor of the object in the interaction. These three conditions—subjective, objective, and possessive—represent the three cases of personal pronoun use (Huddleston and Pullum 2002; Straus, Kaufman and Stern 2014). Take the following subtle variation in the manner in which a firm agent might use “you” in response to a customer inquiry:

“You” in objective case: “I’m happy to help *you* with this question.”

“You” in possessive case: “I’m happy to help *your* question.”

“You” in subjective case: “I’m happy to help *you* answer this question.”

While the first two examples (objective and possessive cases) present the firm agent as the actor who will help the customer with his or her question, the third example (subjective case) suggests that the firm agent is an assistant to action to be taken by the customer. We hereafter refer to the
objective and possessive cases jointly as “objective case”; both function to focus on action by the
firm agent in regards to the customer and his/her possession(s) as opposed to the subjective
case’s treatment of the customer as an actor (rather than recipient of the action).

In the present study, we test the impact of firm agent use of “you” personal pronouns in
the objective case versus the subjective case in their response to a customer inquiry. We also
manipulate “I” pronoun use to provide an additional replication of our basic effect of heightened
firm agent self-focus on customer satisfaction and purchase intentions. Lastly, while our prior
studies independently manipulated the volume of each personal pronoun category, we have not
tested for a simple effect for the presence versus absence of these words; we do so in the present
study. We include a “no personal pronouns” control condition to test the baseline importance of
“I” and “you” pronouns in firm agent language.

Participants, design, and procedure

Undergraduates at a Canadian university (N = 350) participated in a 3 (firm agent “you” use:
objective case, subjective case, absent) x 2 (firm agent “I” use: present, absent) between-subjects
study for partial course credit. Note that the condition in which both “you” and “I” pronouns are
absent provides a no personal pronouns control.

Participants were presented with an adapted version of the inquiry stimuli from study 1 in
which the participant asked fictional retailer Shopsite.com about their return policy. The firm
agent’s response was carefully manipulated such that customer references were either (a) in the
objective case, referring to the customer—or the customer’s possessions—as the object of the
firm agent’s communication (e.g., “Yes, the order can be placed on your credit card”), or (b) in
the subjective case, referring to the customer as the actor (e.g., “Yes, you can place an order on a
credit card”). We also orthogonally manipulated whether firm agent (“I”) self-references were
present (e.g., “If you would like me to provide further assistance…” ) or absent (e.g., “If you
would like further assistance…” ). Full stimuli are presented in Appendix 9.

We captured satisfaction with the firm agent (α = .79) and purchase intentions towards the
firm (α = .86) using the same items as in studies 2 and 3. We then collected the agency (α = .77)
and empathy (α = .82) measures from study 3, as well as the items previously used to assess the
typicality of firm agent language use across conditions (α = .86). As before, there were no
differences across conditions in perceived typicality of the firm agent’s response (Appendix 7).
Results

An omnibus 3 ("you": objective case, subjective case, absent) x 2 ("I": present, absent) ANOVA with satisfaction as the dependent variable revealed a main effect for the presence (vs. absence) of "I" pronouns ($F(1, 345) = 9.40, p < .01), a marginal main effect for the three level "you" factor ($F(2, 344) = 3.42, p = .07), and no interaction of the two factors ($F < 1$). The same analysis for purchase intentions reveals a main effect for "I" pronoun use ($F(1, 344) = 5.47, p < .05), a main effect for the three level "you" factor ($F(1, 344) = 3.93, p < .05) and no interaction ($F < 1$). In the following paragraphs we report results for the relevant contrasts.

"I" Present or Absent and No Personal Pronouns Control. The main effect of the "I" pronoun manipulation indicates that responses with "I" pronouns present led to higher satisfaction with the agent ($M = 5.65$) than responses with "I" pronouns absent ($M = 5.25$). The "I" pronoun present response also outperformed the no pronouns control on the satisfaction measure ($5.65$ vs. $5.28; F(1, 211) = 6.08, p < .05$). The "I" pronouns absent condition did not differ from the no personal pronouns control in terms of satisfaction ($5.25$ vs. $5.28, F < 1$).

As for the purchase intentions dependent measure, the main effect in the omnibus analysis indicates that firm agent responses with "I" pronouns present produced higher purchase intentions than those in which "I" pronouns were absent ($5.44$ vs. $5.10$). Relative to the no personal pronouns control condition, the presence of "I" pronouns marginally improved purchase intentions ($5.55$ vs. $5.11; F(1, 211) = 3.62, p = .06$). The absence of "I" pronouns did not differ from the no pronouns control condition ($5.10$ vs. $5.11; F < 1$).

"You" in Objective or Subjective Case and No Personal Pronouns Control. Underlying the marginal main effect of the "you" manipulation was a finding that firm agent references to "you" (the customer) in the subjective ($M = 5.33$) rather than the objective case ($M = 5.57$) negatively impacted customer satisfaction. However, firm agent use of “you” in the objective case enhanced satisfaction versus the no personal pronouns control condition ($5.57$ vs. $5.28; F(1, 142) = 8.12, p < .01$), suggesting that the linguistic manifestation of a customer-orientation offers at least some advantage over no personal pronoun use. In contrast, satisfaction when the firm agent used “you” in the subjective case was equivalent to the control ($5.33$ vs. $5.28; F(1, 140) = 1.69, p > .15$).

Turning to the purchase intentions dependent measure, firm agent use of “you” in the objective case increased purchase intentions relative to the no personal pronouns control ($5.41$
vs. 5.11; $F(1, 142) = 5.40, p < .05$), though firm agent use of “you” in the subjective case did not differ from the control condition (5.12 vs 5.11; $F < 1$).

*Process.* Finally, using the agency and empathy measures, we replicated the mediation results from study 3 (Appendix 10). The improved customer satisfaction and purchase intentions in the “I” present condition were due to increased perceptions of firm empathy and agency.

**Discussion**

Study 4 replicated the positive effect of firm agent self-focus (“I” pronoun use) relative to the complete absence of “I” pronouns and to a no personal pronouns control condition. Firm agents who used more self-references produced enhanced customer attitudes towards the employee (satisfaction) and the firm (purchase intentions).

Independent of the positive effects for “I” on customer outcomes, the present study also reveals a condition under which there are positive effects for firm agent references to “you” (the customer). While study 3 found null effects for an increased “you” emphasis relative to a minimal pronouns condition, the present study found that the complete elimination of “you” personal pronouns from the firm agent’s language in study 3 had negative consequences. Importantly, this only occurred when the firm agent’s “you” pronoun use treated the customer in the objective case (vs. subjective case). Overall, these results suggest that some baseline level of linguistic customer-orientation is important, but that care must be taken by the firm agent to ensure that the customer is treated as the grammatical object (i.e., recipient of or possessor of the object of firm agent concern and/or action) rather than subject (i.e., actor) in the interaction.

**Study 5: Pronoun Use in Real Customer-Firm Interactions**

Up to this point, we have demonstrated the relative absence of “I” pronoun use by real firm agents in customer-firm interactions relative to natural language (study 1) and provided experimental evidence that increased “I” pronoun use by firm agents may offer significant benefits in terms of customer satisfaction and purchase intentions (studies 2-4). In the present study, we leverage field data to provide an initial test of external validity for the effect of “I” pronoun use by firm agents on purchase behavior in the real world. The use of field data allows us to account for heterogeneity in individual and situated variation in firm agent pronoun use.
Notably, this setting also offers an opportunity to control for heterogeneity in the customer’s pronoun use. While our lab studies fixed the customer’s initial inquiry through experimental design, in reality, the firm agent’s pronoun emphasis in their reply should interact with the personal pronoun emphasis of the customer in their initial communication. As pronouns are used to establish the center of a social interaction, the pronouns used by the customer (e.g., “I’d like to purchase this.” vs. “Can you help?”), are likely to impact the pronoun used by firm agents in reply (Gordon et al. 1993). The present study assesses and controls for these effects by accounting for the customer’s emphasis on a given personal pronoun category (e.g., “I” pronouns) in their email inquiry to the firm as a main effect and as an interaction term with the focal effect of the present research—the firm agent’s use of the same personal pronoun category (e.g., “I” pronouns) in his or her response to the customer. As in prior studies, we examine the effects of “I,” “you,” and “we” pronouns independently, resulting in three models (one for each of “I,” “you,” and “we” pronouns) for the present study’s analysis of field data.

Data

We obtained a data set that included both the linguistic content of actual customer-firm interactions and customer purchases before and after these interactions. The data was obtained from a large multi-category online retailer which sells primarily entertainment and information products (books, music, movies). The firm wishes to remain anonymous. The data set contains a random (nth select procedure) sample of customer-firm interactions (N = 2,098) in 20048 initiated by customers using the “contact us” link that appeared on every page of the firm’s website. The firm operated its own telephone and email customer contact center, with agent staffing ranging from 20-40 full time equivalents during the observation period. We were provided with data at the customer-firm interaction level. The interaction begins with a customer-initiated communication that is not connected with a prior contact “ticket,” and is considered closed after two weeks of no communication by either the customer or firm. Included in the data is a timestamp and the full text of the customer’s initial communication, the firm agent’s reply, and any additional emails for the interaction before the ticket is closed.

8 The age of the data is driven by the firm’s decision to outsource its customer contact center in 2005. The firm was not able to obtain complete customer-firm interaction transcripts from the third-party provider.
We were able to link 1,277 (60.9%) of these customer-firm agent interactions to a purchase account either via the customer’s email address, order information, or account information referenced in the text of the customer’s message. For customers linked to a purchase account, the firm was able to provide purchase volume for one year (365 days) before the date of a given customer-firm interaction, and for one year (365 days) after the date of the final communication of the same interaction. We observe the date each purchase was made and the dollar value of each purchase net of taxes. The data also included the customer’s first name and their billing residence, which we used to produce demographic covariates.

The textual content of the observed customer-firm interactions underwent extensive “cleaning” prior to submitting it to linguistic analysis. We removed generic headers and footers generated by the customer or firm’s email application, as well as third-party marketing footers (e.g., “Post your free ad now at Yahoo! Personals”). As is common in marketing contact centers, the firm provides its agents with a selection of “boilerplate” content that they may adapt for their responses to common topics raised by customers (e.g., how to obtain order status information). As this content was usually heavily integrated into the firm agent’s personalized response to the customer, it was not removed. We note that while any boilerplate language the firm agent elected to adapt to an individual customer communication would not have been written by that particular agent, it was written by another agent of the same firm (i.e., a marketing or customer service manager).

The cleaned customer-firm interaction text was processed in LIWC to measure pronoun use for each customer-initiated communication and the subsequent firm agent response. For analysis, we considered only the initial customer communication and the firm response to the customer. We did this for several reasons. First, this analysis replicates the structure of customer-firm agent interactions examined in prior studies. Second, the modal interaction (77% of cases) was two communications (customer inquiry, firm reply). Third, the modal number of interactions beyond the first two communications was three (64% of remaining interactions), with this third email commonly entailing a “thank you” from the customer for the agent’s help (67% of cases as identified by LIWC word counts). Also, two student judges scored 89% of three-step email interactions as resolved, suggesting there was little new information in the majority of third emails. Fifth, it is beyond the scope of this research to conceptualize and model dynamics in an extended time-series of interactions between customers and firm agents. However, we include
the total number of emails in the interaction as a covariate to help control for unresolved or more complex customer-firm agent interactions.

**Model**

To carry out this analysis, we regress total purchases for the customer in a given customer-firm interaction $i$ for a defined time period after the customer-firm interaction ($P_{i,\text{post}}$) on both the customer and firm agent’s use of one of the three personal pronoun categories (“I,” “you,” or “we”) and a set of interaction-level covariates. This can be specified as

$$P_{i,\text{post}} = \alpha\text{Cust\_Pronoun}_{ic} + \beta\text{Firm\_Pronoun}_{ic} + \alpha\beta + z_i + \varepsilon_i \quad (1)$$

where Cust\_Pronoun$_{ic}$ and Firm\_Pronoun$_{ic}$ represent the LIWC pronoun category statistic for the customer’s initial communication and firm agent reply, respectively, in customer-firm agent interaction $i$, for LIWC pronoun category $c$ ($c =$ “I,” “you,” or “we”). The expected interactive effect of the customer’s pronoun use on the use of the same pronoun by the firm agent (Gordon et al. 1993) is captured by $\alpha\beta$. To reduce potential issues stemming from multicollinearity, we mean-centered each personal pronoun statistic and model each pronoun category independently, resulting in three separate models: one for each of the three pronoun categories. For example, the first model considers (a) the simple effect of the customer’s use of “I” pronouns in their initial email to the firm, (b) the simple effect of the firm agent’s use of “I” pronouns in his or her reply, and (c) the interactive effect of the customer’s and the firm agent’s use of “I” pronouns (see Table 4, Model 1; following References).

As for the remaining model terms, $z_i$ is a vector of interaction-specific covariates, and $\varepsilon_i$ captures idiosyncratic error. The interaction-specific covariates are as follows:

- **Purchase volume prior to the interaction.** Captures customer heterogeneity in baseline purchase volume for customer $i$ for the same time period prior to the interaction ($P_{i,\text{pre}}$) as the time period observed for the dependent measure ($P_{i,\text{post}}$). We report a 90-day purchase observation window before and after the customer-firm interaction for our dependent measure.

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9 Bivariate correlation analysis confirms the expected interactions in customer and firm agent pronoun use. Variance inflation factors fall below the threshold for concerns related to multicollinearity (see Appendix 11).
and its (pre-period) control. This offered the tightest observation window to the interaction event before purchase data becomes exceedingly sparse.¹⁰

**Number of emails.** We include the total number of emails in the customer-firm interaction as a potential indicator of more complex interactions (> 2 communications) that might impact purchase volumes in the post period. This covariate may also help capture deviations from boilerplate language, as the proportion of firm agent text that is boilerplate would decrease as the complexity of the interaction increases.

**Customer posemo and Customer negemo.** LIWC’s two measures of emotional valence in language were captured to attempt to control for the customer’s emotional tone, which can impact the personal pronouns used in the agent’s response (Chung and Pennebaker 2007).

**Resolution.** Two independent judges scored the extent to which they perceived the reason for the customer’s initial email to the firm as resolved on a seven point scale (1 = Not at all resolved, 7 = Very much resolved). We used the mean score of the two judges (r = .43, p < .001).

**Complaint.** Two independent judges coded the customer’s initial communication in each interaction as either a complaint or inquiry (inter-rater agreement = 91%, disagreement resolved by a third judge) to replicate the two main categories of customer-initiated interactions assessed in prior studies. This is incorporated in the model as a dummy for complaints.

**Compensation.** A dummy variable capturing whether the customer was offered a financial incentive or compensation as a consequence of the interaction. This was always a $5 online coupon for a future purchase offered as a customer-service gesture.

**Reason.** We include the firm’s categorization (order-related, website-related, multiple reason, or “other”) of the customer’s reason for initiating the interaction as identified by the firm agent after the customer’s initial email. This provides an additional means to control for the possibility that customer or firm agent pronoun use is moderated by the nature of the interaction.

**Region and Female.** We were able to produce two demographic covariates with the firm’s data. We used ZIP and postal code data to produce a four-level geographic variable describing the firm’s major operating regions to manage the number of geographic covariate terms in the model relative to cities (N = 373) and state or province (N = 32). To produce a gender covariate,

¹⁰ Average annual purchase frequency is less than quarterly (1.99 purchases per year). Model results are fully replicated using a 180-day window, and fall to non-significance at one year (365 days), suggesting the effect of subtle changes in personal pronoun use is moderated by other interaction events over time.
we used “genderizer” software that codes first names as male (e.g., Samuel), female (e.g., Samantha) or unknown (e.g., Sam) using over 100,000 common first names. The customer was identified as either male or female for 1,119 (87.6%) of the customer-firm interactions linked to transactional accounts. We include a dummy term for female customers.

Summary statistics for all independent variables and covariates included in the equation are provided in Appendix 12. Notably, pronoun category means for firm agents using this data set were similar to those observed in study 1’s sample across 40 firms, with a firm agent emphasis on “you” pronouns over “I” pronouns. In contrast, customer language in this sample emphasized “I” over “you” pronouns.

Results

Table 4 (following References) presents the results of models assessing the effect of firm agent emphasis on “I” (Model 1), “you” (Model 2) and “we” (Model 3) pronouns on post-interaction purchase behavior in real customer-firm interactions. For the model covariates, all three models revealed a significant positive relationship between post-interaction purchases ($P_{i,post}$) and pre-interaction purchases ($P_{i,pre}$) and a negative effect on post-interaction purchases for the customer’s use of negative emotion words ($Customer\ negemo$). All other covariates were non-significant.

Firm Agent Pronouns. After accounting for the customer’s use of the same pronoun category in their initial email (Cust_Pronoun_{ic}) and the expected interaction between the customer and firm agent’s personal pronoun use, we find a significant positive simple effect for firm agent use of “I” pronouns ($\beta = 1236.35, t = 4.63, p < .001; \ Model 1$) but not “you” ($\beta = 68.34, t = 0.54, p = .59; \ Model 2$) or “we” pronouns ($\beta = -129.80, t = -0.70, p = .47; \ Model 3$).

There was a significant and positive interaction of the customer and firm agent’s use of “I” pronouns ($\alpha \beta = 226.13, t = 4.58, p < .001; \ Model 1$) and a marginal negative interaction of customer and firm agent use of “you” pronouns ($\alpha \beta = -68.59, t = -1.78, p = .08; \ Model 2$). All other independent variables were non-significant.

Discussion

Overall, the results suggest that increased firm agent use of self-referencing language (“I” pronouns) in their reply to a customer’s initial email communication is linked to increased
purchase volume after the customer-firm agent interaction. This relationship is positively compounded when the firm agent uses more self-references (“I” pronouns) at the same time as the customer uses more self-references (i.e., the positive interaction for “I” pronoun use). This finding is in contrast with what firm agents are both expected to do (pilot), and actually do in practice (study 1 and correlational results from the present study). In short, while firm agents tend to focus on the customer (“you” pronouns), especially when the customer places the focus on themselves (“I” pronouns, Table A11), we replicate the findings of our lab studies and provide real-world evidence that increased first person singular pronoun use by the firm agent has a positive relationship with sales. Further, consistent with most of the lab findings of studies 3 and 4, we see a null effect for changes in firm agent references to the customer (“you”) in real customer-firm interactions.

Also of potential interest is the negative main effect observed for customer use of “you” pronouns in their initial email to the firm (α = -483.41, t = -3.47, p < .001). We speculate this result may indicate customer negativity or attribution of responsibility toward the firm (e.g. “Your site doesn’t work.” or “You need to resolve this.”). Further, the marginal negative interaction between increased firm agent and customer use of “you” pronouns (αβ = -68.59, t = -1.78, p = .08) hints at the possibility of a “blame game,” assigning or denying responsibility between the interaction parties (customer and firm agent).

A key contribution of the present study is that the heterogeneity present in the over 1,000 real customer inquiries and complaints we observe helps control for expected interactions between personal pronoun use and overall sentence construction in the customer’s initial email and the firm agent’s reply, bolstering confidence that the results of our earlier studies are not artifacts of the specific linguistic content used in these lab-controlled experiments. While issues pertaining to potential multicollinearity due to these interactions fall below the threshold of concern (see Appendix 11), we nonetheless urge caution in interpreting the relative size of the significant coefficients for the personal pronoun use predictors within each model.

**General Discussion**

Prevailing managerial theory and practice prescribe a focus on the customer (“you”) in customer-firm interaction. In contrast, across five studies, we demonstrate that increased self-references by firm agents (“I” pronouns) in this setting may be warranted. Results indicate that
managers and consumers expect firm agents to be more linguistically focused on the customer (“you”) than the firm agent (pilot). This expectation is borne out using a sample of real firm responses to customer inquiries and complaints, which show firm agents’ heavier emphasis on “you” pronouns in comparison with natural language (study 1). Three experiments reveal the positive consequences of increased agent self-references (“I” pronouns) on customer attitudes and intentions (studies 2-4) and demonstrate that this effect arises through enhanced perceptions of the extent to which the firm agents feels (empathy) and acts (agency) on behalf of the customer (studies 3 and 4). A final study leveraged field data to offer initial evidence of a positive link between increased “I” pronoun use by firm-agents and actual customer purchases.

Notably, neither our experiments nor our field data suggest that the increased use of “you” or “we” pronouns decreases customer satisfaction, purchase intentions, or purchase behavior—rather, these pronoun categories tended to have null effects on customer outcomes. Only in contrast with the complete absence of “you” pronouns did objective case “you” pronouns produce a significant positive effect on customer satisfaction and intentions (study 4). Importantly, our lab studies also demonstrate the independent effects of each of these pronoun categories—increasing “I” pronouns in study 1 had a positive effect even when “you” pronoun use was high, and study 4’s orthogonal manipulation of “I” (present, absent) and “you” (object, subject) pronouns revealed no interaction between these factors.

Practically speaking, these results shed light on how firms might leverage the linguistic content of customer-firm communications (e.g., email, blogs, social networks, etc.) to improve their language use in these interactions, thereby enhancing customer relationships. Simply put, and in contrast to prevailing managerial philosophies, firms should train customer-facing employees to emphasize more self-references in their language (“I” pronouns) when responding to customers. This might arise naturally if, for example, firm agents are encouraged to think of themselves as being more personally involved in the customer’s needs rather than as an impersonal agent of the firm.

We note that the current research focuses solely on customer-firm interactions via email or other text-based forms of communication. However, we expect our results to hold across different modes of communication. While prior work has established some differences between spoken and written language (e.g., speed), the goal of the communication (e.g., addressing customer inquiries or complaints) is a stronger predictor of linguistic content than
communication format (Barton 1994; Halliday 1995). The sample of 95 customer call center interactions from the firm that provided the data for study 5 found similarly customer-oriented pronoun use (i.e., a “you” emphasis) for live telephone firm agents (Table A4, comparison sample D). Thus, while there may be main effect differences across channels—for example, we might expect higher use of “I” pronouns in face-to-face interactions—we would predict that differential personal pronoun use should have similar effects across channels, such that increased firm agent use of “I” pronouns will still be more beneficial than the use of “you” or “we” pronouns. However, it would be worthwhile to test mean levels of pronoun use and the effects of the personal pronoun categories across different customer interaction channels in future research.

Indeed, this research opens the door to further examinations of language use in customer-firm interactions. Future research could identify boundary conditions for the beneficial effects of “I” pronoun use. While moderate use of “I” pronouns increases customer perceptions of firm agent empathy and agency, egocentric “I” pronoun use—or, alternately, a complete lack of “you” pronoun use—by a firm agent might lead to negative customer perceptions of self-centeredness on the part of the agent, which may decrease satisfaction and purchase behavior. In contrast, increased “we” pronoun use may be more beneficial if it refers to the firm agent and the customer, rather than the firm agent and the firm, as we found in our studies. To sum, researchers may wish to pursue the optimal “mix” of pronoun use across the three categories (“I,” “you,” and “we”) and different marketing contexts (e.g., sales vs. service, live vs. non-contemporaneous).

Future research could explore our mediators, empathy and agency, in more depth. While both variables indicate firm agent involvement, they suggest potentially different outcomes or responses from agents—one emotional and one behavioral. The context of customer-firm interactions might affect the importance of each mediator. For example, empathy may have a greater positive impact on customer satisfaction and purchase intentions in a service failure context, while agency may have a greater positive impact on these outcomes in a sales context.

In addition, it would be worth investigating the customer’s use of personal pronouns in initial communications to firms. This might provide a useful indicator of the customer’s emotions and state of mind in contacting the firm: “you” pronouns might indicate blame and anger toward the firm, while “I” pronouns might indicate self-reflection and sadness or disappointment. More broadly, examining customer personal pronoun use as an attitudinal or behavioral signal—or as a consequence of marketing mix elements—may offer a prime avenue
for future research. For example, while firms are increasingly interested in assessing consumer sentiment towards them by analyzing the valence of firm-related consumer chatter online (Henschen 2012), our personal pronoun measures were found to be stronger predictors of purchase outcomes than measures of customer language valence (posemo, negemo; study 5) similar to those used in sentiment analysis.

Finally, future work could examine other linguistic categories that may be of importance in customer-firm interactions. While our effects were robust to natural variation in the words that accompanied the personal pronoun categories we examine (studies 2 and 5), examination of other language categories used by either the customer or the firm agent, such as explaining language (Moore 2012), temporal focus (Chen & Lurie 2013; Pennebaker, Mehl, and Niederhoffer 2003), or specific emotion word use (e.g., anger, anxiety; Yin, Bond, and Zhang 2013), could play an important role in customer outcomes following customer-firm interactions.
APPENDIX 1:
LAY THEORIES REGARDING OPTIMAL PERSONAL PRONOUN USE

We conducted a pilot study to test individuals’ intuitions about language use in customer-firm interactions. Five hundred American participants recruited via Amazon Mechanical Turk were asked what a firm employee should do in response to customer inquiries or complaints for each of the three personal pronoun categories we examine. Specifically, we asked to what extent firm agents should talk about: (1) “your” (the customer’s) question or complaint, (2) how “we” (the firm) can address the question or complaint, and (3) how “I” (the employee) can address the question or complaint (1 = Not at all, 7 = Very much; question order randomized). Participants also indicated whether they had currently or previously worked in paid employment as (a) managers of other people, (b) managers of customer service representatives, and/or (c) customer service representatives, either in-person or remotely (e.g., internet, phone). We also asked them to report their tenure in these roles in years and the maximum number of people they had supervised in that role. Two participants failed to complete the survey, leaving 498 for analysis.

For the full sample and for each employment history sub-category (Table A1), paired comparisons reveal that participants believed firm agents should focus more on “you” (the customer) than “I” (the firm agent), and more on “we” (the firm) than “I” (the firm agent). There was no difference in the extent to which firm agents should focus on “you” (the customer) versus “we” (the firm). Neither the participant’s years of experience in a given role nor the number of people they had managed were related to beliefs about pronoun use.
### TABLE A1: DESIRED PRONOUN EMPHASIS IN CUSTOMER-FIRM INTERACTIONS

<table>
<thead>
<tr>
<th>Sample</th>
<th>N</th>
<th>Firm agents should talk about...</th>
<th>...how &quot;I&quot; (the firm agent) can address the subject.*</th>
<th>&quot;your&quot; (the customer's) subject.*</th>
<th>...how &quot;we&quot; (the firm) can address the subject.*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full</td>
<td>498</td>
<td>5.17 (^{A})</td>
<td>5.94 (^{B})</td>
<td>5.96 (^{B})</td>
<td></td>
</tr>
<tr>
<td>Managers (excl. customer service)</td>
<td>122</td>
<td>5.20 (^{A})</td>
<td>6.09 (^{B})</td>
<td>5.98 (^{B})</td>
<td></td>
</tr>
<tr>
<td>Customer service managers</td>
<td>94</td>
<td>5.35 (^{A})</td>
<td>5.83 (^{B})</td>
<td>5.98 (^{B})</td>
<td></td>
</tr>
<tr>
<td>In-person service representatives</td>
<td>226</td>
<td>5.22 (^{A})</td>
<td>5.96 (^{B})</td>
<td>6.08 (^{B})</td>
<td></td>
</tr>
<tr>
<td>Remote service representatives</td>
<td>113</td>
<td>5.19 (^{A})</td>
<td>6.01 (^{B})</td>
<td>5.97 (^{B})</td>
<td></td>
</tr>
</tbody>
</table>

Row differences \(p > .05\) are indicated by different alphabetical superscripts.

*See text for exact question wording. All means are on a seven-point scale; 1 = not at all, 7 = very much.
APPENDIX 2:
BOGUS CUSTOMER EMAILS (STUDY 1)

_Inquiry Email_

Hello, I am wondering about your return policy. Can I buy something on my credit card and have you ship it to a person in a different country as a gift? If so, how would you handle the return if she doesn’t like it? She shouldn’t have to pay to return it. If it’s not free, can return shipping go on my credit card so she doesn’t have to pay? Thanks in advance for the help. --Bob

_Complaint Email_

Hello, I’m having trouble finding a product at your website. I never write letters like this but your site interface is clunky and hard to navigate on a touchscreen tablet. I think you should also consider changing the fonts to something easier to read. The links were hard to find and took me several tries to click on. The search engine doesn’t seem to work, so I have to use the category links to find anything. --Bob
APPENDIX 3:
LIWC PERSONAL PRONOUN CATEGORIES

<table>
<thead>
<tr>
<th>“I”</th>
<th>“you”</th>
<th>“we”</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>You</td>
<td>Lets</td>
</tr>
<tr>
<td>Id</td>
<td>You’d</td>
<td>Let’s</td>
</tr>
<tr>
<td>I’d</td>
<td>You’d</td>
<td>Our</td>
</tr>
<tr>
<td>I’ll</td>
<td>You’ll</td>
<td>Ours</td>
</tr>
<tr>
<td>Im</td>
<td>You'll</td>
<td>Ourselves</td>
</tr>
<tr>
<td>I'm</td>
<td>Your</td>
<td>Us</td>
</tr>
<tr>
<td>I've</td>
<td>You're</td>
<td>We</td>
</tr>
<tr>
<td>I've</td>
<td>You're</td>
<td>We'd</td>
</tr>
<tr>
<td>Me</td>
<td>Yours</td>
<td>We'll</td>
</tr>
<tr>
<td>Mine</td>
<td>You've</td>
<td>We're</td>
</tr>
<tr>
<td>My</td>
<td>You've</td>
<td>We've</td>
</tr>
<tr>
<td>Myself</td>
<td>You've</td>
<td>We've</td>
</tr>
</tbody>
</table>
APPENDIX 4:  
LANGUAGE SAMPLE COMPARISONS (STUDY 1)

In study 1, we tested whether the distribution of “I” relative to “you” (and “we”) personal pronoun emphasis in real firm agent responses is consistent with base rates in related settings.

For a global natural language comparison, we leverage means and standard deviations from a large dataset (n > 700,000) that reports global rates of personal pronoun use from over 70 linguistic psychology studies (Pennebaker et al. 2007). As summarized in table A4 (sample A), firm agents in the present study were significantly more likely to use “you” pronouns, and significantly less likely to use “I” or “we” pronouns than this global sample. Pennebaker and colleagues report means in their 2007 article suggesting that modality (e.g. live oral (table A4, sample B) vs. written online (table A4, sample C)) does not produce variations in the global distribution of pronoun use across “I,” “you,” and “we” pronouns.

We also consider three comparison samples in which the speaker is, like the firm agent in our present email-based study, responding to another individual. One might expect that this interaction setting would differ from the global mean, with pronoun use shifting towards the other party who initiated the conversation (“you”). Consistent with this thinking, we find an emphasis on “you” pronouns (relative to “I” and “we”) in firm-agent oral responses to customer inquiries in a sample of 95 telephone interactions from the online retailer who provided the data for study 5 (table A4, sample D) and a sample of 80 advice columnist responses from four major syndicated advice columns11 (table A4, sample E). However, consumer responses to posts made by other consumer participants at an Internet-based parenting forum about baby products (table A4, sample F) retain an “I” emphasis, following a pronoun use distribution similar to Pennebaker et al.’s (2007) global mean. Taken together, these three samples suggest that a “you” emphasis may be normative in professional or expert responses (e.g., those of firm agents and advice columnists) to others, while casual conversation retains an emphasis on self-focus (“I” pronoun use), even when the speaker is responding to the needs of another (table A4, sample F).

11 20 random samples from each of Ask E. Jean (Elle magazine), Miss Manners (Washington Post), Dear Prudence (Slate), and Ask a Dude (Hairpin.com). Pronoun use means did not vary significantly across the four advice columns.
### TABLE A4: PRONOUN USE OF REAL FIRM AGENTS VERSUS COMPARISON SAMPLES (STUDY 1)

<table>
<thead>
<tr>
<th>Corpus</th>
<th>Source</th>
<th>LIWC Pers. Pronoun Category</th>
<th>LIWC Statistic</th>
<th>Welch t-stat (Focal vs. Comparison Sample)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Focal Sample</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm agent responses to bogus customer emails (N = 40)</td>
<td>Study 1</td>
<td>&quot;I&quot;</td>
<td>0.94</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;You&quot;</td>
<td>6.04</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;We&quot;</td>
<td>4.83</td>
<td></td>
</tr>
<tr>
<td><strong>Comparison Samples</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;You&quot;</td>
<td>1.18</td>
<td>-14.57 ***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;We&quot;</td>
<td>0.76</td>
<td>-9.06 ***</td>
</tr>
<tr>
<td>B. Oral conversation in unstructured real world settings (N = 2,014)</td>
<td>Pennebaker et al (2007)</td>
<td>&quot;I&quot;</td>
<td>6.30</td>
<td>-- ^</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;You&quot;</td>
<td>3.94</td>
<td>-- ^</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;We&quot;</td>
<td>1.09</td>
<td>-- ^</td>
</tr>
<tr>
<td>C. Writing by Internet-based bloggers and posters (N = 9,537)</td>
<td>Pennebaker et al (2007)</td>
<td>&quot;I&quot;</td>
<td>6.42</td>
<td>-- ^</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;You&quot;</td>
<td>1.23</td>
<td>-- ^</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;We&quot;</td>
<td>0.88</td>
<td>-- ^</td>
</tr>
<tr>
<td>D. Oral firm agent responses to real customer telephone inquiries in study 5 (N = 95)</td>
<td>Firm used</td>
<td>&quot;I&quot;</td>
<td>3.78</td>
<td>9.54 ***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;You&quot;</td>
<td>7.03</td>
<td>17.57 ***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;We&quot;</td>
<td>1.09</td>
<td>0.54</td>
</tr>
<tr>
<td>E. Written responses to questions asked of syndicated advice columnists (N = 80)</td>
<td>Four syndicated advice columns</td>
<td>&quot;I&quot;</td>
<td>1.59</td>
<td>1.99 *</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;You&quot;</td>
<td>5.67</td>
<td>11.91 ***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;We&quot;</td>
<td>0.20</td>
<td>-2.67 **</td>
</tr>
<tr>
<td>F. Written responses to questions posted on Internet-based forums (N = 108)</td>
<td>Online parenting forum</td>
<td>&quot;I&quot;</td>
<td>5.21</td>
<td>5.85 ***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;You&quot;</td>
<td>2.51</td>
<td>3.97 ***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&quot;We&quot;</td>
<td>0.82</td>
<td>1.74 +</td>
</tr>
</tbody>
</table>

*All LIWC statistic values correspond to proportions (out of 100).*

^Standard deviations were not reported for corpus sub-groups in Pennebaker et al (2007).

*** p < .001, ** p < .01, * p < .05, + p < .10
APPENDIX 5:
REAL FIRM AGENT RESPONSES AND RESEARCHER-MODIFIED RESPONSES (S2)

A comparison of personal pronoun use by firm agents from the six firm responses selected for study 2 from the full sample of 40 is presented in Panel A of Table A5, which shows no significant differences in the rate of usage of these pronouns between the full (study 1) and reduced (study 2) samples. Panel B of the same table shows the impact on LIWC statistics of increasing “I” (relative to “we”) pronoun usage in the modified firm response condition, where there is a significant increase in “I” pronouns (5.32 vs. 1.07; $t(12) = 2.39, p < .05$) and a significant reduction in “we” pronouns relative to the original response (1.49 vs. 5.73; $t(12) = -3.00, p < .05$). Note also that the LIWC statistics for the modified versions remain within the distribution of pronoun use in natural language reported in Table A4, and indeed appear closer to these distributions than the original firm response versions.

TABLE A5:
SUMMARY STATISTICS FOR REAL FIRM AGENT RESPONSES AND RESEARCHER-MODIFIED RESPONSES (STUDY 2)

<table>
<thead>
<tr>
<th>LIWC Personal Pronouns Category</th>
<th>Full Sample (N = 40)</th>
<th>Sub-sample (N = 6)</th>
<th>Welch's t-stat</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;I&quot;</td>
<td>0.94 (1.68)</td>
<td>1.07 (1.73)</td>
<td>0.17</td>
</tr>
<tr>
<td>&quot;You&quot;</td>
<td>6.04 (2.11)</td>
<td>7.23 (1.75)</td>
<td>1.51</td>
</tr>
<tr>
<td>&quot;We&quot;</td>
<td>4.83 (2.84)</td>
<td>5.73 (2.39)</td>
<td>0.84</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LIWC Personal Pronouns Category</th>
<th>Firm agent response condition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Original (N = 6)</td>
</tr>
<tr>
<td>&quot;I&quot;</td>
<td>1.07 (1.73)</td>
</tr>
<tr>
<td>&quot;You&quot;</td>
<td>7.23 (1.75)</td>
</tr>
<tr>
<td>&quot;We&quot;</td>
<td>5.73 (2.39)</td>
</tr>
</tbody>
</table>

Standard deviations reported in parentheses.
**$p < .01$, *$p < .05$, +$p < .10$
While shopping at the website of Shopsite.com, a well-known online retailer, you realize you have a question. You submit your question to the company by email. Later on, you find the response that follows it in your inbox.

Your email:

Hello, I am wondering about your return policy. Can I buy something on my credit card and have you ship it to a person in a difference country as a gift? If so, how would you handle the return if she doesn’t like it? She shouldn’t have to pay to return it. If it’s not free, can return shipping go on my credit card so she doesn’t have to pay?

Thanks in advance for the help,
[Participant first name inserted here]

The response you receive:

1) Firm D (mass merchant), original response

Hi [Participant first name]

Thank you for contacting Shopsite.com regarding international shipping and returns. We are glad to review this matter for you.

Currently, we do not offer international shipping and returns. Shopsite.com can only ship to locations in Canada. Any additional restrictions are listed in the detailed description for each item on Shopsite.com.

[Participant first name inserted here], we thank you for your understanding and cooperation on this matter. If you have additional questions, please reply to this email.

Best regards,
Chris,
Shopsite.com

2) Firm D (mass merchant), modified response

Hi [Participant first name]

Thank you for contacting Shopsite.com regarding international shipping and
returns. I am glad to review this matter for you.

Currently, we do not offer international shipping and returns. Shopsite.com can only ship to locations in Canada. Any additional restrictions are listed in the detailed description for each item on Shopsite.com.

[Participant first name inserted here], I thank you for your understanding and cooperation on this matter. If you have additional questions, please reply to this email.

Best regards,
Chris
Shopsite.com

Original and modified firm agent responses for all six stimuli used in study 2 are available from the authors on request.
It is possible that any positive effects of increasing “I” pronoun usage could stem from making firm language more consistent with natural language, since the pilot study shows that firm agents language use differs significantly from natural language samples. In this case, our modified firm responses would conform to natural language use norms, which could lead firm responses to be viewed as more typical and generate positive responses. However, an alternative prediction can also be made. If, as indicated in the pilot study, consumers have expectations that firms should talk about “you” and “we” but not “I” in customer-firm interactions, our modified firm responses could violate these firm language norms (Kronrod and Danziger 2013; Kronrod et al. 2011). This may lead them to be perceived as atypical and generate negative responses, which is opposite to our predictions.

Our pretests examined both possibilities by comparing typicality across the stimuli used in studies 2-4. Pretest participants were asked to indicate whether the language of a single email response stimuli was typical, expected, and standard (1 = Not at all, 7 = Very much; Kronrod et al. 2011). Pretest sample size and Cronbach’s Alpha for the three-item scale are shown in Table A7a. For Study 2, contrasts of original vs. modified stimuli found no differences in typicality with one exception, for which the modified stimuli was more typical than the original firm agent response (Table A7b). There was no difference in language typicality by condition for the stimuli in studies 3 or 4 ($F_s < 1$; see Table A7b).

<table>
<thead>
<tr>
<th>Study</th>
<th>N</th>
<th>$\alpha$</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>376</td>
<td>0.87</td>
</tr>
<tr>
<td>3</td>
<td>212</td>
<td>0.78</td>
</tr>
<tr>
<td>4</td>
<td>155</td>
<td>0.88</td>
</tr>
<tr>
<td>Study 2</td>
<td>Original</td>
<td>Modified</td>
</tr>
<tr>
<td>---------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>Firm A</td>
<td>5.95</td>
<td>5.84</td>
</tr>
<tr>
<td>Firm B</td>
<td>5.74</td>
<td>5.94</td>
</tr>
<tr>
<td>Firm C</td>
<td>5.74</td>
<td>5.48</td>
</tr>
<tr>
<td>Firm D</td>
<td>6.33</td>
<td>6.03</td>
</tr>
<tr>
<td>Firm E</td>
<td>5.84</td>
<td>6.20</td>
</tr>
<tr>
<td>Firm F</td>
<td>5.85</td>
<td>5.56</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Study 3</th>
<th>Condition</th>
<th>F-stat (omnibus)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;I&quot;</td>
<td>5.31</td>
<td>0.74</td>
</tr>
<tr>
<td>&quot;You&quot;</td>
<td>4.95</td>
<td></td>
</tr>
<tr>
<td>&quot;We&quot;</td>
<td>5.17</td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>5.24</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Study 4</th>
<th>&quot;I&quot; as subject</th>
<th>present</th>
<th>absent</th>
<th>F-stat (omnibus)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;You&quot; subjective</td>
<td>5.40</td>
<td>5.58</td>
<td>0.30</td>
<td></td>
</tr>
<tr>
<td>&quot;You&quot; objective</td>
<td>5.66</td>
<td>5.57</td>
<td></td>
<td></td>
</tr>
<tr>
<td>“You” absent</td>
<td>5.66</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*** p < .001, ** p < .01, * p < .05, + p < .10
APPENDIX 8:
SCENARIO-BASED STIMULI (STUDY 3)

Just as you are about to make a purchase at Shopsite.com, a reputable online retailer, you realize that you can't find a coupon you were recently emailed from the site. You send the message shown below. A couple hours later, you receive the response that follows it.

Your email:

Hi-

I received a coupon via email from your company a couple days ago and deleted it by mistake. I'm ready to make my purchase now. Can you resend the coupon to this email address please?

Thanks,
[Participant first name]

The response you receive:

1) “I” condition

Hi [Participant first name]

Thanks for your email about a lost e-coupon. Unfortunately, I am not able to confirm that a coupon was sent without a username or account number. Please provide me with one of the above and as much of the following information as possible, and I may be able to get the e-coupon code--

- the headline or subject line of the email
- the dollar or percent off value of the coupon
- any products featured in the email with the coupon

Once I receive this info, I can investigate the coupon further and my hope is that I can send it again for the purchase!

Best regards,
Chris
Shopsite.com

2) “You” condition

Hi [Participant first name]

Thanks for your email about a lost e-coupon. Unfortunately, your username or
account number is required to confirm that a coupon was sent. Please provide one of the above and as much of the following information as possible, and you may be able to get the e-coupon code--

- the headline or subject line of the email
- the dollar or percent off value of the coupon
- any products featured in the email with the coupon

Once you send this info, your coupon can be investigated further, and hopefully sent to you again for the purchase!

Best regards,
Chris
Shopsite.com

3) “We” condition

Hi [Participant first name]

Thanks for your email about a lost e-coupon. Unfortunately, we are not able to confirm that a coupon was sent without a username or account number. Please provide us with one of the above and as much of the following information as possible, and we may be able to get the e-coupon code--

- the headline or subject line of the email
- the dollar or percent off value of the coupon
- any products featured in the email with the coupon

Once we receive this info, we can investigate the coupon further. Our hope is that we can send it again for the purchase!

Best regards,
Chris
Shopsite.com

4) Control condition

Hi [Participant first name]

Thanks for your email about a lost e-coupon. Unfortunately, a username or account number is required to confirm that a coupon was sent. Please provide one of the above and as much of the following information as possible, and the e-coupon code may be available--

- the headline or subject line of the email
- the dollar or percent off value of the coupon
- any products featured in the email with the coupon

Once this info is sent, the coupon can be investigated further, and hopefully sent again for the purchase!

Best regards,
Chris
Shopsite.com

TABLE A8: SUMMARY STATISTICS FOR SCENARIO-BASED FIRM AGENT RESPONSE STIMULI (STUDY 3)

<table>
<thead>
<tr>
<th>LIWC Personal Pronouns Category</th>
<th>Firm Agent Response Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;I&quot;</td>
<td>6.31 0.00 0.00 0.00</td>
</tr>
<tr>
<td>&quot;You&quot;</td>
<td>0.90 5.94 0.92 1.03</td>
</tr>
<tr>
<td>&quot;We&quot;</td>
<td>0.00 0.00 6.42 0.00</td>
</tr>
</tbody>
</table>
APPENDIX 9:
SCENARIO-BASED STIMULI (STUDY 4)

While shopping at the website of Shopsite.com, a well-known online retailer, you realize that you have a question. You submit your question to the company by email. Later on, you receive the response that follows it in your inbox.

Your email-

Hello, I am wondering about your return policy. Can I buy something on my credit card and have you ship it to a different country? If so, how would you handle the return if I change my mind? Thanks in advance for the help.

The response you receive:

1) “You” in subjective case, “I” present

I am happy to help you answer this question.

Yes, you can place the order on a credit card and then you can have it shipped to a different country. However, if you need to return the order from outside the country, you will pay the cost of return postage.

If you would like me to provide further assistance, you can get it from me here at Shopsite anytime.

Sincerely,
Chris
Shopsite.com Customer Service

2) “You” in objective (or possessive) case, “I” present

I am happy to help answer your question.

Yes, the order can be placed on your credit card and then it can be shipped to you in a different country. However, if your order needs to be returned from outside the country, the cost of return postage is yours.

If I could provide you with further assistance, I'm available for you here at Shopsite anytime.

Sincerely,
Chris
Shopsite.com Customer Service

3) “You” in subjective case, “I” absent
Happy to help you answer this question.

Yes, you can place an order on a credit card and then you can have it shipped to a different country. However, if you need to return the order from outside the country, you will pay the cost of return postage.

If you would like further assistance to be provided, you can get it here at Shopsite anytime.

Sincerely,
Chris
Shopsite.com Customer Service

4) “You” in objective (or possessive) case, no “I”

Happy to help answer your question.

Yes, the order can be placed on your credit card and then it can be shipped to you in a different country. However, if your order needs to be returned from outside the country, the cost of return postage is yours.

If further assistance can be provided to you, it's available for you here at Shopsite anytime.

Sincerely,
Chris
Shopsite.com Customer Service

5) No personal pronouns control

Happy to help answer this question.

Yes, the order can be placed on a credit card and then it can be shipped to a different country. However, if the order needs to be returned from outside the country, the customer pays the cost of return postage.

If further assistance can be provided, it's available here at Shopsite anytime.

Sincerely,
Chris
Shopsite.com Customer Service
APPENDIX 10:
MEDIATION REPLICATION (STUDY 4)

For this replication analysis, we contrast the effect of “I” pronoun usage versus its absence on customer satisfaction and purchase intentions, with empathy and agency as simultaneous parallel mediators of the effect. The presence (vs. absence) of “I” pronouns increased participant perceptions of firm agent empathy ($B = .22, t = 3.22, p < .01$) and agency ($B = .26, t = 3.82, p < .001$). Both mediators significantly predicted satisfaction with the firm agent ($B_{empathy} = .28, t = 4.43, p < .0001; B_{agency} = .20, t = 3.20, p < .01$). Bootstrapping showed that the impact of the presence of “I” pronouns on satisfaction was mediated by both empathy (CI: .02 - .12, $p < .05$) and agency (CI: .02 – .11, $p < .05$). The same pattern of results held with purchase intentions as the dependent measure. Empathy ($B = .21, t = 3.15, p < .001$) and agency ($B = .26, t = 3.78, p < .001$) were increased given the presence (vs. absence) of “I” pronouns, and increased empathy ($B = .34, t = 4.90, p < .0001$) and agency ($B = .19, t = 2.69, p < .01$) predicted increased purchase intentions. Bootstrap confidence intervals again supported mediation by empathy (CI: .03 – .15, $p < .05$) and agency (CI: .01 – .11, $p < .05$).
APPENDIX 11:
ASSESSING MULTICOLLINEARITY IN PERSONAL PRONOUN USE BY CUSTOMERS AND FIRM AGENTS BY INTERACTION (STUDY 5)

As expected, the correlation matrix of personal pronoun use by the customer and firm agent indicate significant interactive effects (see Table A11). Specifically, if the customer initially emphasized the self (the firm and/or its agent), the firm agent’s reply reflects this conversational focus through a personal pronoun emphasis on the customer (the firm or themselves).

Variance inflation factors for the full regression models in study 5 (Table 4) indicate the consequences of potential multicollinearity are not severe. All predictors and covariates fell below the VIF threshold of 10 (Kutner et al. 2004), suggesting that the variance of model coefficients was not substantially increased due to collinearity.

TABLE A11: CORRELATIONS IN PRONOUN USE IN REAL CUSTOMER-FIRM INTERACTIONS (S5)

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Customer “I”</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Customer “You”</td>
<td>-0.50</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Customer “We”</td>
<td>-0.56</td>
<td>0.53</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Firm agent “I”</td>
<td>-0.52</td>
<td>0.51</td>
<td>0.57</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>5 Firm agent “You”</td>
<td>0.45</td>
<td>-0.37</td>
<td>-0.44</td>
<td>-0.51</td>
<td>1.00</td>
</tr>
<tr>
<td>6 Firm agent “We”</td>
<td>0.43</td>
<td>-0.40</td>
<td>-0.49</td>
<td>-0.59</td>
<td>0.43</td>
</tr>
</tbody>
</table>

All correlations are significant at $p < .01$. 

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TABLE A12:
SUMMARY STATISTICS FOR REGRESSION MODEL TERMS (S5)

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Full sample Pronoun Use (N = 2,098)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;I&quot;</td>
<td>5.38</td>
<td>4.86</td>
<td>0</td>
<td>30.00</td>
</tr>
<tr>
<td>&quot;You&quot;</td>
<td>3.63</td>
<td>3.01</td>
<td>0</td>
<td>25.00</td>
</tr>
<tr>
<td>&quot;We&quot;</td>
<td>0.94</td>
<td>1.65</td>
<td>0</td>
<td>14.29</td>
</tr>
<tr>
<td>Firm agent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;I&quot;</td>
<td>1.93</td>
<td>3.85</td>
<td>0</td>
<td>26.32</td>
</tr>
<tr>
<td>&quot;You&quot;</td>
<td>6.19</td>
<td>3.30</td>
<td>0</td>
<td>19.30</td>
</tr>
<tr>
<td>&quot;We&quot;</td>
<td>3.12</td>
<td>3.25</td>
<td>0</td>
<td>10.00</td>
</tr>
<tr>
<td><strong>Transactional account sample Pronoun Use (N = 1,277)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;I&quot;</td>
<td>5.68</td>
<td>4.95</td>
<td>0</td>
<td>30.00</td>
</tr>
<tr>
<td>&quot;You&quot;</td>
<td>3.55</td>
<td>2.94</td>
<td>0</td>
<td>25.00</td>
</tr>
<tr>
<td>&quot;We&quot;</td>
<td>0.90</td>
<td>1.64</td>
<td>0</td>
<td>14.29</td>
</tr>
<tr>
<td>Firm agent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;I&quot;</td>
<td>1.83</td>
<td>3.78</td>
<td>0</td>
<td>26.32</td>
</tr>
<tr>
<td>&quot;You&quot;</td>
<td>6.28</td>
<td>3.27</td>
<td>0</td>
<td>19.15</td>
</tr>
<tr>
<td>&quot;We&quot;</td>
<td>3.11</td>
<td>2.44</td>
<td>0</td>
<td>11.76</td>
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<tr>
<td><strong>Model covariates</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase volume$_{i,pre}$</td>
<td>559.10</td>
<td>1536.53</td>
<td>0</td>
<td>35850.00</td>
</tr>
<tr>
<td># of emails</td>
<td>3.00</td>
<td>1.92</td>
<td>2</td>
<td>22.00</td>
</tr>
<tr>
<td>Customer posemo</td>
<td>3.83</td>
<td>2.64</td>
<td>0</td>
<td>25.00</td>
</tr>
<tr>
<td>Customer negemo</td>
<td>1.07</td>
<td>1.46</td>
<td>0</td>
<td>16.67</td>
</tr>
<tr>
<td>Complaint</td>
<td>5.75</td>
<td>1.52</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Resolution</td>
<td>0.12</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Compensation</td>
<td>0.01</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Order reason</td>
<td>0.60</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Website reason</td>
<td>0.24</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Multi reason</td>
<td>0.04</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Region 1</td>
<td>0.53</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Region 2</td>
<td>0.29</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Region 3</td>
<td>0.08</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>0.65</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>
References


<table>
<thead>
<tr>
<th>Bogus Customer Communication</th>
<th>LiWC Personal Pronoun Categories</th>
<th>Firm Agent Response to Customer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Inquiry (N = 20)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;I&quot;</td>
<td>.80</td>
<td>1.78</td>
</tr>
<tr>
<td>&quot;You&quot;</td>
<td>4.94</td>
<td>2.16</td>
</tr>
<tr>
<td>&quot;We&quot;</td>
<td>3.28</td>
<td>1.92</td>
</tr>
<tr>
<td>Complaint (N = 20)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;I&quot;</td>
<td>1.07</td>
<td>1.60</td>
</tr>
<tr>
<td>&quot;You&quot;</td>
<td>7.14</td>
<td>1.38</td>
</tr>
<tr>
<td>&quot;We&quot;</td>
<td>6.37</td>
<td>2.80</td>
</tr>
<tr>
<td>Total (N = 40)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;I&quot;</td>
<td>.94</td>
<td>1.68</td>
</tr>
<tr>
<td>&quot;You&quot;</td>
<td>6.04</td>
<td>2.11</td>
</tr>
<tr>
<td>&quot;We&quot;</td>
<td>4.83</td>
<td>2.84</td>
</tr>
</tbody>
</table>

Notes: LIWC statistics represent proportion of words in observed corpus.
<table>
<thead>
<tr>
<th>Firm</th>
<th>Product Category</th>
<th>Interaction</th>
<th>Satisfaction with Firm Agent</th>
<th>Purchase Intention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Original</td>
<td>Modified</td>
</tr>
<tr>
<td>A</td>
<td>Apparel, lifestyle</td>
<td>Complaint</td>
<td>4.33</td>
<td>5.23</td>
</tr>
<tr>
<td>B</td>
<td>Media, travel</td>
<td>Complaint</td>
<td>4.26</td>
<td>5.13</td>
</tr>
<tr>
<td>C</td>
<td>Women's apparel</td>
<td>Complaint</td>
<td>4.79</td>
<td>5.59</td>
</tr>
<tr>
<td>D</td>
<td>Mass merchant</td>
<td>Inquiry</td>
<td>4.42</td>
<td>5.51</td>
</tr>
<tr>
<td>E</td>
<td>Apparel, outdoor</td>
<td>Inquiry</td>
<td>4.79</td>
<td>5.50</td>
</tr>
<tr>
<td>F</td>
<td>Automotive</td>
<td>Inquiry</td>
<td>4.28</td>
<td>4.96</td>
</tr>
</tbody>
</table>

** p < .01,  * p < .05,  + p < .10
TABLE 3: IMPACT OF “I”, “YOU”, “WE”, AND CONTROL PRONOUNS IN FIRM AGENT RESPONSES (STUDY 3)

<table>
<thead>
<tr>
<th>Firm Response</th>
<th>Satisfaction with Firm Agent</th>
<th>Purchase Intention</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>4.89</td>
<td>4.91</td>
</tr>
<tr>
<td>You</td>
<td>4.06</td>
<td>4.22</td>
</tr>
<tr>
<td>We</td>
<td>4.48</td>
<td>4.60</td>
</tr>
<tr>
<td>Control</td>
<td>4.29</td>
<td>4.44</td>
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</table>
TABLE 4: RELATIONSHIP BETWEEN PRONOUN USE IN REAL CUSTOMER-FIRM INTERACTIONS AND CUSTOMER PURCHASE VOLUME (STUDY 5)

<table>
<thead>
<tr>
<th></th>
<th>(1) &quot;I&quot; Model</th>
<th>(2) &quot;You&quot; Model</th>
<th>(3) &quot;We&quot; Model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>SE</td>
<td>SE</td>
</tr>
<tr>
<td>Intercept</td>
<td>3720.9</td>
<td>(2339.0)</td>
<td>525.5</td>
</tr>
<tr>
<td>( \alpha \text{Cust}_c = &quot;I&quot; )</td>
<td>692.5</td>
<td>(117.3)</td>
<td>***</td>
</tr>
<tr>
<td>( \beta \text{Firm}_c = &quot;I&quot; )</td>
<td>1236.3</td>
<td>(267.1)</td>
<td>***</td>
</tr>
<tr>
<td>( \alpha \beta \text{c} = &quot;I&quot; )</td>
<td>226.1</td>
<td>(49.4)</td>
<td>***</td>
</tr>
<tr>
<td>( \alpha \text{Cust}_c = &quot;You&quot; )</td>
<td>-483.4</td>
<td>(139.2)</td>
<td>***</td>
</tr>
<tr>
<td>( \beta \text{Firm}_c = &quot;You&quot; )</td>
<td>68.3</td>
<td>(127.6)</td>
<td></td>
</tr>
<tr>
<td>( \alpha \beta \text{c} = &quot;You&quot; )</td>
<td>-68.6</td>
<td>(38.5)</td>
<td>+</td>
</tr>
<tr>
<td>( \alpha \text{Cust}_c = &quot;We&quot; )</td>
<td>-387.8</td>
<td>(312.0)</td>
<td></td>
</tr>
<tr>
<td>( \beta \text{Firm}_c = &quot;We&quot; )</td>
<td>-129.8</td>
<td>(181.6)</td>
<td></td>
</tr>
<tr>
<td>( \alpha \beta \text{c} = &quot;We&quot; )</td>
<td>79.8</td>
<td>(114.0)</td>
<td></td>
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<tr>
<td>Covariates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>( P_{i,pre} )</td>
<td>0.3</td>
<td>(.0)</td>
<td>***</td>
</tr>
<tr>
<td># of emails</td>
<td>175.5</td>
<td>(198.9)</td>
<td>***</td>
</tr>
<tr>
<td>Customer posemo</td>
<td>-192.8</td>
<td>(133.6)</td>
<td>-41.4</td>
</tr>
<tr>
<td>Customer negemo</td>
<td>-629.7</td>
<td>(238.6)</td>
<td>364.2</td>
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<tr>
<td>Complaint</td>
<td>-307.0</td>
<td>(3437.9)</td>
<td>-550.5</td>
</tr>
<tr>
<td>Resolution</td>
<td>-672.9</td>
<td>(1035.2)</td>
<td>-917.9</td>
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<tr>
<td>Compensation</td>
<td>-985.6</td>
<td>(1168.3)</td>
<td>-807.2</td>
</tr>
<tr>
<td>Order reason</td>
<td>296.8</td>
<td>(1640.8)</td>
<td>1843.4</td>
</tr>
<tr>
<td>Website reason</td>
<td>-618.4</td>
<td>(1279.6)</td>
<td>-913.6</td>
</tr>
<tr>
<td>Multi reason</td>
<td>-171.9</td>
<td>(758.4)</td>
<td>-58.8</td>
</tr>
<tr>
<td>Region 1</td>
<td>578.6</td>
<td>(1188.9)</td>
<td>-981.5</td>
</tr>
<tr>
<td>Region 2</td>
<td>2296.8</td>
<td>(1640.8)</td>
<td>1843.4</td>
</tr>
<tr>
<td>Region 3</td>
<td>-618.4</td>
<td>(1279.6)</td>
<td>-913.6</td>
</tr>
<tr>
<td>Female</td>
<td>-171.9</td>
<td>(758.4)</td>
<td>-58.8</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.19</td>
<td></td>
<td>0.18</td>
</tr>
</tbody>
</table>

*** \( p < .001 \), ** \( p < .01 \), * \( p < .05 \), + \( p < .10 \)

Notes: Other reason and Region 4 are baselines for respective dummy sets.