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Passive voice in consumer complaints reveals fault attribution and predicts escalation

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ABSTRACT

Hotline wait-times, complicated returns, odd charges on a bill, cumbersome applications: negative service experiences are common. And consumer reactions carry major implications for firms. Drawing on the premise that language reflects unspoken cognition, this research adopts a mixed-methods paradigm to investigate whether a subtle linguistic feature in complaints (i.e., the use of passive voice): (1) reveals consumers' perception of responsibility for a bad service experience, and (2) predicts escalation. To this end, study 1 applies natural language processing to more than 160,000 real complaints filed with the U.S. Consumer Financial Protection Bureau. We find that consumers who write with greater passive voice are significantly more likely to dispute offers of resolution, even after extensive controls. Studies 2A–3B use correlational and experimental methods to demonstrate that passive constructions increase as perceived fault (for a poor service experience) shifts from self to service provider. Study 4 extends this finding by showing that, when consumers attribute responsibility for an incident to the firm, they in turn: (i) use more passive voice to complain and (ii) report stronger escalation intentions—an effect that persists after controlling for individuals' baseline writing-style. Conceptually, this research uncovers linguistic structure, an understudied aspect of language, as a diagnostic window into consumers' state of mind. Managerially, we suggest an automated, cost-effective approach to identify early which dissatisfied customers are likely to escalate. Such insight allows in turn for more targeted service-recovery interventions.

Life is filled with negative service experiences. Unexpected charges appear on hotel bills and bank statements. Travelers get bumped off a flight. Online orders are delivered to the wrong address. Consumers get locked out of their Airbnb rental.

Such experiences have important consequences for customers and companies. When dissatisfied, customers may “voice” their complaints (Fornell & Wernerfelt, 1987; Hirschman, 1970), share negative word of mouth (Babić Rosario et al., 2016; Rosario et al., 2020), tell family and friends (Hamilton et al., 2021), or escalate things if they see no timely resolution (De Angelis et al., 2020). Conversely, such responses by consumers have a significant impact on companies' bottom lines since dissatisfied customers are less likely to repurchase (Orsingher et al., 2010). Overall, bad customer-service costs companies an estimated \$75 billion annually (Businesswire, 2018).

While negative service experiences are both frequent and important, perceived responsibility for these issues varies greatly. Rather

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than blaming incidents on bad luck or randomness, consumers often place blame on either themselves or their service provider.¹ For example, being charged an overdraft fee may register as one's own fault (i.e., there wasn't enough money in my account) or the bank's (i.e., they pulled the money on the wrong day). Similarly, someone who gets locked out of their Airbnb may feel like they are mostly responsible (e.g., I forgot the door code) or that the host is mostly responsible (e.g., they provided unclear directions about how the door works).

With the above in mind, we ask whether a seemingly-subtle linguistic-feature (i.e., grammatical voice) may reflect: (1) the degree to which consumers deem themselves (vs. the service provider) responsible for a negative experience and, as a result (2) one's likelihood of escalating a complaint?

Though subtle a feature at first sight, we posit that grammatical voice (active vs. passive) is consequential because it shifts how agency and responsibility are linguistically packaged. Stated plainly, we argue that passive-voice use reveals meaningful psychological orientations in consumers (i.e., who was at fault for a negative experience). And detecting such orientations/attitudes with granularity (i.e., one customer at a time) is as important as it is complex for firms; they face indeed an ever-growing volume of complaint streams from their own channels and from third-party platforms (e.g., Google, Yelp). The latter makes it difficult to rely on dedicated personnel to manually read and triage escalation risk. Our effort seeks to empower firms with a rapid, affordable, and scalable technique that enables better targeting. Specifically, we intend to identify on whom attention and resources should be focused to increase customer recovery and/or preempt escalation (e.g., negative word or mouth or lawsuits). In short, though grammatical voice does not change the meaning of content, we contend it holds subtext (i.e., latent consumer attitudes) that is critical for organizations to hear.

Combining natural language processing of over 160,000 customer complaints with carefully-controlled lab-studies, our multi-method investigation examines the interplay of (i) fault attributions, (ii) passive-voice use, and (iii) escalation proclivities. We posit that consumers who use passive voice to describe a negative experience are more likely to escalate their complaint (e.g., dispute a resolution offer, initiate legal action, broadcast a scathing review). Importantly, though passive voice predicts escalation, it does not cause it. Rather, we show that passive voice offers a window into consumers' state of mind. Specifically, passive voice reveals consumers' latent (i.e., invisible) attitudes regarding who was responsible for the incident. The more they perceive the service provider was at fault, the more their complaining adopts the passive form. Repeating for emphasis, by itself, passive voice does not cause escalation behaviors. Rather, passive voice *reflects* where customers lay blame for a negative experience (i.e., onto themselves vs. onto the service provider). It is the latter (i.e., fault attribution) that causes escalation.

Our findings make three contributions. First, from a conceptual standpoint, we shed light on an underexplored characteristic of language. A vibrant stream of research has examined consumer language (Berger et al., 2020; De Angelis et al., 2012; J. K. Lee & Junqué de Fortuny, 2022; Lopez & Garza, 2022; Moore & McFerran, 2017; Packard & Berger, 2024; Patrick & Hagtvedt, 2012a, 2012b; Shoham et al., 2017). Though this work has provided valuable insights into linguistic *content* and *style* (e.g., topic models, pronoun use; Packard et al., 2018), few forays consider linguistic *structure* (i.e., the syntactic properties of text; Ostinelli & Luna, 2022). Our first theoretical contribution lies here; we uncover what an important structural element of language (i.e., grammatical voice: active vs. passive) reveals about consumers' attitudes and future behavior.

Second, our investigation contributes novel insights by way of the unit of analysis it considers. To date, most language research in marketing focuses on how communication impacts *those who consume* it (De Angelis et al., 2017; Hodges et al., 2023; Moldovan et al., 2015, 2019; Pezzuti et al., 2021; Villarroel Ordenes et al., 2017). For instance, how the words used in advertisements affect consumer choice (Fossen & Schweidel, 2017, 2019), or how the language used by service representatives shapes customer satisfaction (Packard, Moore, et al. 2018). Though this work deepens our understanding of how language affects audiences, less research in marketing explores language's other function: what it *reflects* about the people (or organizations) that *produce* it (see Berger et al., 2020). Addressing this gap, we show that linguistic structure (i.e., passive-voice use) leaks internal states (i.e., whom consumers find blameworthy for a negative service experience, and how they may respond).

Third, from a managerial standpoint, our work offers organizations a window into customers' state of mind. Indeed, though consumers sometimes assign blame explicitly, in most complaints, blame tends to be diffuse, implicit, or embedded in narrative description. And even when explicit blame exists, firms would still benefit from scalable signals to triage at volume. In short, we suggest a rapid and cost-effective solution to an age-old problem. This new capability offers a strategic edge over competitors. By ascertaining early which disenchanted consumers are likely (vs. not) to escalate, organizations may rethink the nature *and* magnitude of their compensation policies (e.g., what and how much to offer; when to increase it vs. not). Relatedly, our work offers guidance to personnel handling customer complaints on the front lines. Whereas a customer-service representative is currently more or less blind to consumers' state of mind (i.e., where they lay blame for a negative service experience), our findings offer him/her/them a glimpse into what goes on inside the black box on the other side. Together, the findings yielded herein afford organizations a better chance at service-failure recovery, hence at protecting their brand.

1. Consumer complaints

Consumers often express dissatisfaction with companies. The degree to which consumers complain is a function of the perceived cause of the problem (Folkes, 1984), level of dissatisfaction and frustration with the issue (Davidow & Dacin, 1997), violation of previously-held expectations (Bearden & Teel, 1983; Oliver, 1980), and odds of an effective resolution (Kowalski, 1996; Richins,

¹ Rather than being binary, fault attributions fall along a continuum, with more or less fault being placed on the customer vs. the company.

1987). Consumers may complain directly to the company (i.e., over the phone or through their website) or to fellow consumers. Most large organizations employ people to manage such complaints (Knox & Van Oest, 2014; Morgeson et al., 2020; Resnik & Harmon, 1983); they work to minimize the chance that complainants escalate things by writing a nasty review, spreading negative word-of-mouth, or filing a formal dispute (Grégoire et al., 2009, 2010; Grégoire & Fisher, 2008; Herhausen et al., 2023; Jung et al., 2017; Orsingher et al., 2010).

Two streams of research have examined consumer complaints. The first, led by consumer psychologists and developed under the rubric of “complaining, feedback, and word of mouth,” examines consumer motives for complaining. It views complaints as an opportunity for consumers to vent their anger, gain social benefits, and interact with others (Grégoire et al., 2009, 2010; Grégoire & Fisher, 2008; Jung et al., 2017; Khamitov et al., 2020; Knox & Van Oest, 2014). Jung et al. (2017), for example, find that system-justification motives shape whether people complain. Similarly, work has examined different drivers of complaining behavior such as social status (Alicke et al., 1992; Kowalski, 1996), social engagement (Alicke et al., 1992), alerting others (McGraw et al., 2015), and encouraging social action (Ward & Ostrom, 2006).

The second stream, led by strategy researchers and developed under the rubric of “service recovery and firm response,” examines complaints from the company’s perspective. This work has explored how companies try to resolve complaints (Orsingher et al., 2010; Resnik & Harmon, 1983) and how such attempts impact subsequent consumer behavior (Aaker et al., 2004; Brock et al., 2013; Gilly, 1987; Kanuri & Andrews, 2019). Aaker et al. (2004), for example, find that whether brand transgressions hurt consumer-brand relationships depends in part on whether the brand is positioned as exciting or sincere. Other work in this stream examined the mitigating effects of response timeliness (Smith et al., 1999; Tax et al., 1998), service representatives’ empathy and politeness (Goodwin & Ross, 1989; Tax et al., 1998), and the company’s perceived effort to resolve the complaint (Smith et al., 1999).

Building on these two research streams, we examine whether the language consumers use when complaining provides meaningful insights into how they’ll behave in the future. And, if so, why?

2. Linguistic structure

Language can be divided into three key dimensions: content, style, and structure (Markowitz, 2022). *Content* is what people talk about (i.e., the substance or matter conveyed). For illustration, one restaurant review may focus on service while another focuses on food. Similarly, one consumer complaint may focus on an unfair price while another focuses on a dirty room. Research in this area explored factors such as how questions vs. statements impact product evaluations (Hagtvedt, 2015), the persuasion potential of narratives (Hamby et al., 2015, Hamby et al., 2017), and linguistic nuances of refusals (Patrick & Hagtvedt, 2012a, 2012b). On crowdfunding platforms, prior work finds that loan applicants who write more about the topics of employment, school, interest-rate reduction, and monthly payments are more likely to repay their loans. In contrast, applicants who include in their pitch references to family or God/religion show greater defaulting rates (Netzer et al., 2019). Similarly, compared to Airbnb hosts who write that they started hosting because they wanted to “earn cash,” those who write about motivations of sharing beauty or meeting people are more likely to keep hosting and stay active on the platform (J. Chung et al., 2022).

The second key dimension of language is *style*. Whereas content is what people talk about, style is the way in which they convey it. This includes categories of words such as pronouns (e.g., I and you), articles (e.g., an or the), and prepositions (e.g., of or in). For example, “I like ice cream” and “ice cream is the best” both suggest that the speaker has favorable attitudes toward the cold treat; however, they convey the notion in different ways. The former uses a personal pronoun (i.e., I) whereas the latter uses an article (i.e., the). Research in this area explored aspects such as pronoun use (Packard et al. 2018), linguistic-style matching (Moore & McFerran, 2017), and function-words more generally (C. Chung & Pennebaker, 2007). Work on pronoun use, for example, finds that using “I” rather than “we” pronouns boosts customer satisfaction and purchase because it makes customers feel that the service agent has more empathy and agency (Packard et al. 2018). Similarly, work on linguistic mimicry finds that one is more likely to reflect other people’s linguistic style (e.g., adopt similar articles and pronouns) when said others show characteristics or status similar to oneself (Moore & McFerran, 2017).

The third key dimension of language is *structure*. Beyond what is talked about (i.e., content) or how it is discussed (i.e., style), language also varies in structure (i.e., how words in a sentence are arranged/organized). For example, “Join today to get in shape” and “Get in shape; join today” both convey the same content, but they formulate it differently (i.e., they follow a different syntax). Linguistic structure includes syntactic elements such as parts-of-speech (i.e., the grammatical role each word plays in a sentence) and dependencies (i.e., the interrelations between words). “John succeeded in his exam” and “John was successful in his exam” have the same meaning (i.e., success on an exam), for example, but communicate it using different parts-of-speech (i.e., a verb, succeed, or an adjective, successful). Similarly, in terms of dependencies, if someone says “Amazon delivers products quickly,” “products” is the object of the verb (i.e., delivers) and “quickly” is the adverb describing the quality of the verb. Research on linguistic structure has examined aspects such as readability (Flesch, 1948), syntactic complexity (Bock, 1982; Pogacar et al., 2018), and syntactic surprise (Atalay et al., 2023).

Importantly, while research in marketing has explored how linguistic content and style shape consumer behavior, linguistic structure has received less attention. Further, the little work that has been done focused on linguistic structure’s impact (i.e., on readers or listeners). Work in consumer behavior, for example, examined how aspects of syntactic complexity (e.g., left-branching or grammatical transformations) shape advertising effectiveness, attitude formation, and memory (Bradley & Meeds, 2002; Lowrey, 1998, 2006). Similarly, Ostinelli and Luna (2022) examined how grammatical subject and linguistic structure shape the persuasiveness of advertising claims. In short, the few papers that have begun to explore linguistic structure did so by focusing on downstream effects (i.e., how different structural properties influence audiences). In contrast, we examine what linguistic structure signals about *content*

creators themselves (e.g., writers or speakers). Posed as a question, we ask whether variations in syntactic properties reveal creators' own attitudes and predict their future behavior?

3. The current research

As noted earlier, we propose that linguistic structure offers a window into consumers' state of mind. Specifically, we suggest that a particular syntactic property (i.e., grammatical voice) may serve as a proxy to gauge who consumers believe is responsible for a bad service encounter (i.e., themselves relative to the service provider). And from this proxy, one may infer consumers' likelihood to escalate (e.g., demand to speak with management, spread negative word of mouth, initiate legal action).

Grammatical voice (i.e., active vs. passive) refers to the subject and focus of a sentence (Johnson-Laird, 1968). If someone says "I entered my PIN incorrectly three times and I lost access to my card," they are using the active voice and placing themselves as the subject of the sentence. In contrast, if they said "The PIN was entered incorrectly three times and access to my card was banned," they are using the passive voice, which can hide the subject (i.e., themselves). Thus, while active voice emphasizes the grammatical subject as the driver of the action, passive voice de-emphasizes it, putting the object first and sometimes even removing the original subject from the sentence. People can have different reasons for using passive voice, and its use can reflect cognition (i.e., what people are thinking; Baratta, 2009; Ferreira, 2021).

We suggest that grammatical voice reflects attributions of fault. Specifically, we contend that the prevalence of passive voice in a customer complaint reflects their belief regarding who was responsible for a bad service experience (i.e., the more passive the voice, the more the company is deemed at fault). Once inferred, this attribution of responsibility allows for a straightforward prediction: the more at fault is perceived the company, the keener to escalate is the consumer.

Prior work supports our theorizing, though it focuses on audiences (rather than on communicators). For instance, a great deal of research in psychology established the link between passive voice, psychological distance (Anisfeld & Klenbort, 1973; Burgoon, 2018; Chan & Maglio, 2020; Wiener & Mehrabian, 1968), blame (Bohner, 2001; Frazer & Miller, 2009; Henley et al., 1995; Lamb, 1991), and perceptions of causality (Knobloch-Westerwick & Taylor, 2008). An actor's salience, for example, can shape who listeners think caused something (Kasof & Lee, 1993). Reading that "John broke the window" (i.e., active voice) makes readers think John is more responsible than does reading "The window was broken by John" (i.e., passive voice). Consequently, by shaping what is more or less salient, passive voice can change whom audiences blame. In the same vein, psycholinguistics research finds that the grammatical subject of a sentence can influence who listeners think is responsible (Brown & Fish, 1983; Fausey & Boroditsky, 2010; Garnham et al., 1996; Garvey & Caramazza, 1974; Kasof & Lee, 1993; McGlone et al., 2013). That's why reading "Timberlake ripped the costume," for example, would make listeners think he was more blameworthy than does "the costume was ripped" (Fausey and Boroditsky 2010). Overall, by de-emphasizing (or even deleting) the actor, passive voice diverts attention away from him/her/them (Chan & Maglio, 2020; Johnson-Laird, 1968), which implies that the actor was less/not responsible for the behavior (Von Hippel et al., 2008).

In short, while prior work on grammatical voice focuses on the *downstream impact of reading* passive voice on *readers*, we focus instead on what *using* passive voice may *reflect* about *communicators themselves*.² We argue that linguistic properties (i.e., active vs. passive voice) reflect consumers' inner sense of causality and blame. To illustrate, the active sentences "it seems I made a mistake" and "I raised my voice" suggest that the customer acknowledges responsibility for the service encounter going wrong. In contrast, we contend that the accumulation of passive constructions (e.g., "it seems a mistake was made by me" and "my voice was raised") signals a shift (i.e., a reduction) in perceptions of responsibility by the customer.³ From this follows an intuitive proposition: as responsibility for a poor experience shifts away from consumers and/or toward the service provider, consumers become likelier to escalate (e.g., share negative word of mouth or file a complaint with the Better Business Bureau).

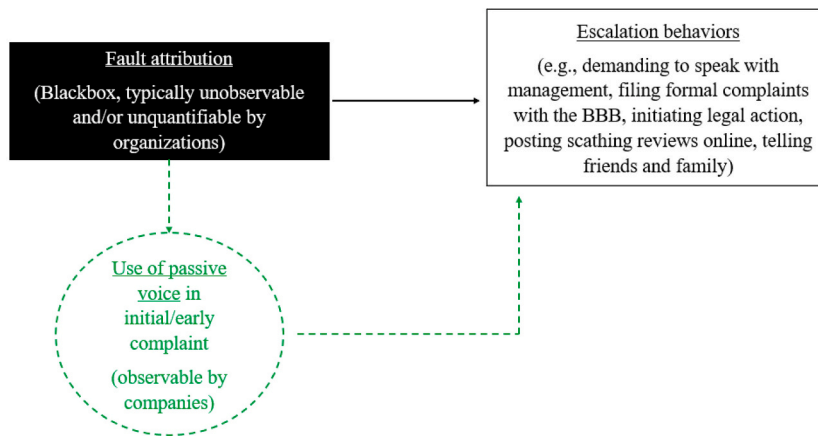
We conclude this section by recalling a marketplace conundrum. As alluded earlier, the link between fault attributions and behavioral intentions is well established (Folkes et al., 1987; Grégoire & Fisher, 2008; Hess, 2008; for a review see Van Vaerenbergh et al., 2014). Accordingly, organizations would benefit from knowing said attributions, as it would enable them to minimize potential backlash from discontent customers, users, and citizens (Van Vaerenbergh et al., 2014). And yet, organizations have currently no means of doing so. Our work fills this gap. We suggest a theory-derived and empirically-tested solution to an age-old problem. Our method is automated and cost-effective. By offering a glimpse into consumers' state of mind, we afford organizations the capability to allocate resources more strategically toward high-risk cases. With such predictive insights comes the ability to reduce risks and costs (e.g., customer churn, reputational damage). In competitive contexts, such competence represents a strategic advantage.

4. Overview of studies

Six studies test our conceptual model (Fig. 1.). Using natural language processing to analyze over 160,000 real complaints, study 1 examines whether passive voice predicts escalation. We find that consumers whose narrative displays more passive constructions are more likely to dispute the resolution offered by the company. Using correlational (studies 2A and 3A) and experimental approaches (studies 2B, 3B and 4), the next five studies explore the connection between fault attribution and passive voice. Collectively, they show

² We are not aware of any work examining what passive voice indicates about the person who produced it.

³ For many negative service experiences, there is often an inverse relation between fault attributed to the company and fault attributed to the self. The more one thinks the company is to blame, the less one sees himself as blameworthy, and vice versa. Hence, while there may be other factors to which blame can be attributed (e.g., chance), the company and oneself are the two primary targets.



Note: The solid arrow represents a strong but unobservable relation. The dotted arrows represent the alternative pathway we suggest to (i) gauge fault attributions and (ii) predict escalation.

Fig. 1. Streamlined Conceptual Model Note: The solid arrow represents a strong but unobservable relation. The dotted arrows represent the alternative pathway we suggest to (i) gauge fault attributions and (ii) predict escalation.

that grammatical voice does indeed offer a glimpse into consumers' state of mind: the stronger the belief that the provider was responsible for a negative experience, the more prevalent are passive constructions in one's complaint. Study 4 concludes our experimental package by connecting all three variables. Once again, manipulating responsibility (for a negative experience) toward the company leads consumers to use greater passive voice in their complaint. Expectedly, it also strengthens the likelihood of escalation (e.g., demanding to speak to management, writing a scathing review online, telling family, friends, or colleagues).

5. Study 1: 160,000 real consumer-complaints

Study 1 tests our theorizing in the field. Using natural language processing, we analyzed over 160,000 real complaints to examine whether consumers who use more passive voice are more likely to escalate (i.e., dispute the resolution offered by the service provider).

5.1. Method

Data. When a consumer faces an issue with a financial product or service (e.g., credit card, mortgage, debt collection, or bank account), they can file a complaint with the Consumer Financial Protection Bureau. In turn, the CFPB reaches out to the company at stake in an attempt to mediate the dispute. The company responds to the CFPB by suggesting how it will address the complaint (e.g., by offering an apology, an explanation, or a refund). This response is then shared with the consumer who can, in turn, accept the resolution offer or dispute it. If the consumer decides to dispute it, the bureau will give him/her/them guidance on how to further escalate his/her/their complaint through the legal system.

To examine our propositions, we leaned on the Consumer Financial Protection Bureau's consumer-complaints database which archives all complaints received between March 19, 2015 and April 22, 2017. The database records complainant location (i.e., home State), the complaint itself (i.e., full text), the service provider (i.e., company name), the complaint's date as well as the date on which it was relayed to the other party, timeliness of the company reply, and the nature of resolution offered (e.g., apology, explanation, refund). For full information, visit <https://www.consumerfinance.gov/data-research/consumer-complaints/>.

Given our focus on how linguistic structure (i.e., passive voice) predicts escalation, we considered complaints that include language (as opposed to complaints left blank). This resulted in a dataset comprising 164,064 complaints.

Independent variable. To approximate the number of passive-voice sentences in complaints, we used the most sophisticated package to date: PassivePy (Sepehri et al., 2023). While prior work estimates passive voice via pattern matching (i.e., looking for a form of "to be" plus a past participle; Warren et al., 2021), such an approach is prone to errors. For instance, it would tag as passive voice both "I was exhausted" and "the resources were exhausted" whereas the latter construction is the only one adopting a passive voice.⁴ Similarly, pattern-matching approaches fail to detect passive sentences that follow a "get + past participle" structure (e.g., John got arrested by the police).

In contrast, PassivePy integrates a variety of techniques (i.e., machine learning, part-of-speech tagging, dependency parsing, and rule-based matching) to detect passive voice based on pre-defined language-patterns. To illustrate, rule-based algorithms that are sensitive only to the pattern "have/has/had + been + past participle" would *fail* to flag as passive the sentence "I have not been

⁴ The sentence "I was exhausted" follows the active voice: the subject (I) conjugates the state verb "to be" in preterit (a.k.a. simple past) tense. "Exhausted" functions as a participial adjective.

elected.” By contrast, PassivePy *would* identify the passive construction thanks to its ability to detect active/passive voice in sentences containing not only questions but also negations. Ultimately, the PassivePy package boasts a 98% agreement-rate with human coders (Sepehri et al., 2023).

In prelude to our findings, we note that the number of passive sentences was skewed (skewness = 1.86, SE = 0.006). Accordingly, we log-transformed it.⁵

Dependent variable. As noted above, once the CFPB conveys the service provider’s resolution offer (e.g., apology, explanation, or refund), consumers can either accept it or dispute it further. Opting to dispute constitutes our operationalization of escalation. For perspective, 28% of complainants chose to escalate.

5.2. Results

As predicted, a generalized linear model (binomial family) found that consumers who use more passive voice are more likely to dispute the resolution offered by the company ($b_1 = 0.22$, $p < 0.001$; see model 1, Table 1.).

Though this result is consistent with our theorizing, other factors may be driving the effect. To test robustness, then, follow-up analyses controlled for a host of competing explanations. For clarity, we organize these robustness checks around four themes: (i) characteristics of the complaint itself, (ii) characteristics of the complainant/consumer, (iii) characteristics of the company response, and (iv) “other.”

(i) *Complaint characteristics* regard: (a) the *type of issue* brought up (classified by the CFPB as either loan/credit application, loan originator, mortgage broker, credit-reporting company’s investigation,⁶ or excessive fees) and (b) the *product class* complained about (classified as either credit card, bank account, or debt collection). To this effect, one may wonder whether certain issues (or certain product classes) cause consumers to not only (i) narrate their complaint with greater passive voice but also (ii) escalate more readily. To control for these competing explanations, we included fixed effects for (a) and (b).

In the same vein, we accounted for the richness/complexity of complaints. A complaint may indeed include various sub-issues in its midst (e.g., debt collection, customer-service issue, mortgage broker, and excessive fees), some of which may not even fall neatly into one of the categories predefined by the CFPB. To account for this complexity, we applied topic-modeling techniques (i.e., latent Dirichlet allocation (LDA; Blei, 2012) to measure the co-occurrences of words both within and across complaints. Doing so, we identified: (a) the topics discussed in each complaint as well as their respective prevalence, and (b) the words composing each topic.

Armed with these insights, we then controlled for the prevalence of sub-issues within a given complaint. For illustration, if a complaint covered topic 1 at 40%, topic 2 at 30%, topic 3 at 20%, and topic 4 at 10%, we were able to identify these topics, assign them a proper weight, and control for each accordingly. For a methodological review, see Berger and Packard (2018) and Sepehri et al. (2024).

(ii) *Complainant characteristics* refer to consumers’ dispositions, orientations, traits, etc. as they are revealed by their writing. For example, one may wonder whether consumers who show strong emotional valence (especially negativity) are more likely to not only (a) write in passive form but also (b) escalate.

To address this possibility, we used the VADER measure (Hutto & Gilbert, 2014).⁷ VADER is advantageous because it is sensitive to negations (e.g., happy vs. not happy), intensifiers (e.g., unhappy vs. very unhappy), netspeak (e.g., today SUX), emojis (e.g., ☹), chatmojis (e.g., :D), and punctuation marks (i.e., a sentence ending with “!” gets a score different to one ending with “.”).

Relatedly, one may wonder whether consumers who display greater emotionality overall tend to also write in passive form and escalate. To account for this possibility, we used LIWC’s “affect” score (i.e., Linguistic Inquiry and Word Count; Pennebaker et al. (2015)). One of the most trusted text-mining packages, LIWC works by comparing each word in a corpus to its internal, proprietary dictionaries. For illustration, in a text of 250 words, the words *happy*, *happiness*, *love*, *affection*, *optimism*, *good*, *sad*, *sadness*, *angry*, *anger*, *upset*, and *anxiety* would all register as positive- and negative-affect words. And the total “affect” score would be $12/250 = 4.8\%$. For further details on LIWC’s mechanics, please see Pennebaker et al. (2015).⁸

Drawing on Berger and Milkman (2012), we considered yet another potential confound: arousal. Perhaps consumers who are highly activated also exhibit greater tendencies to write in passive voice and escalate. We controlled for this possibility using the VAD NRC Lexicon (for details, see (Mohammad, 2018)).

Next, we considered whether people who write longer complaints overall (whatever the cause may be) are more likely to write in passive voice and dispute resolutions. To address this possibility, we controlled for complaint *length* (i.e., the total number of sentences, log transformed).

Next, while topic-modeling controls for the issues described in a complaint, other aspects of writing style (i.e., cognitive processing, social processes, perception, motivation, time orientation, relativity, and formality) may reveal a consumer’s likelihood to escalate.

⁵ Descriptive statistics for the IV (i.e. passive voice) as well as for key covariates are reported in Table A1 in the Web Appendix.

⁶ An investigation is triggered when a consumer contacts a credit-reporting company (e.g., Equifax, Experian, or TransUnion) to report that information on their credit report is inaccurate or incomplete.

⁷ Results are the same if a difference score of LIWC’s negative- and positive-emotions scores is used. For robustness, we also tested the Evaluative Lexicon (Rocklage, Rucker, & Nordgren 2018) to control for both valence and emotionality. However, there was not enough coverage because most complaints had no words from the lexicon.

⁸ We did not use Vader here as its compound emotionality score captures the difference between positive and negative emotions rather than the overall level of emotionality (i.e., sum of all emotions).

Table 1
Passive Voice and Complaint Escalation.

	(1)	(2)	(3)
# passive-voice sentences	0.22***(0.01)	0.03*(0.01)	
% passive-voice sentences			0.11**(0.03)
Controls			
Complaint			
Issue		Included	Included
Product class		Included	Included
Topics		Included	Included
Complainant			
Emotional valence		Included	Included
Emotionality/affect		Included	Included
Arousal		Included	Included
Pronouns		Included	Included
Number of sentences (log)		Included	Included
LIWC dictionaries		Included	Included
Company response			
Timeliness		Included	Included
Type of resolution		Included	Included
Other controls			
Year		Included	Included
Month		Included	Included
Weekday		Included	Included
State		Included	Included
Intercept	-1.49***(0.01)	-0.73(0.23)**	-0.77(0.23)***

Note: * indicates $p \leq 0.05$, ** $p \leq 0.01$, and *** $p \leq 0.001$. Text in parentheses is the standard error. LIWC dictionaries included: cognitive processing, social processes, perception, motivation, time orientation (past, present, and future), relativity, and formality.

Following prior work (Berger & Packard, 2018), we captured these traits using LIWC's comprehensive psycholinguistic dictionaries (Pennebaker et al., 2015).

Lastly, to rule out the possibility that complainants' use of pronouns drives our findings, we controlled for it using LIWC's dedicated variable (Pennebaker et al. 2015). It captures all pronouns, whether they be subjective (e.g., I, you), objective (e.g., him, us), possessive (e.g., ours, mine), or reflexive (e.g., myself, ourselves). Using this comprehensive category, we neutralize all potential confounds related to pronoun use/framing.

(iii) *Company Response*. After considering how characteristics of (i) the complaint itself and (ii) the complainant may contribute to our findings, we examined characteristics related to the company response (Orsingher et al., 2010). Though the CFPB does not publish the text of company responses, it archives *response timeliness* as well as the *type of resolution* offered (e.g., an explanation, an apology, or a refund). Regarding the latter, it is intuitive that consumers would be more likely to escalate if the service provider offered them a meager explanation rather than a full refund. Supporting this intuition is research on strategic response (Gilly, 1987; Heil & Robertson, 1991; R. P. Lee & Grewal, 2004) and service recovery (e.g., Smith et al., 1999). We therefore controlled for their influence.⁹

(iv) *Other Control Variables*. Finally, we controlled for unobserved time-variant and time-invariant factors. First, to capture time-variant sources of unobserved heterogeneity, we included fixed effects for the *Year*, *Month*, and *Weekday* on which the CFPB received the complaint. Second, to capture time-invariant sources of unobserved heterogeneity, we included fixed effects for the U.S. *State* in which the complainant was located.

Results with robustness checks. The controls outlined above (and their combinations) add up to dozens of covariates. Nonetheless, our initial findings remain robust. Consumers whose complaint uses more passive voice are more likely to dispute the resolution offered by the company ($b_1 = 0.03$, $p = 0.03$, see model 2 in Table 1).

This result is also robust to operationalizing the independent variable as the *percentage of sentences* written in passive voice ($b_1 = 0.11$, $p = 0.002$, see model 3 in Table 1). For parameter estimates of the control variables, see table A2 in the Web Appendix.

5.3. Discussion

We theorized that the linguistic structure of complaints provides a window into consumers' state of mind. Specifically, we predicted that the prevalence of passive-form constructions predicts escalation behavior. The evidence yielded by study 1 supports our conjectures.

Analysis of over 160,000 real complaints reveals that increases in passive-voice use correspond to increases in escalation (i.e., a greater likelihood to dispute resolution offers). This finding is robust to a host of competing explanations having to do with the complaint itself, the complainant, or the company response. Note that the magnitude of the effect is meaningful; each additional

⁹ The CFPB uses five categories to denote resolution type: (1) closed with no resolution, (2) closed with explanation, (3) closed with nonmonetary resolution, (4) closed with monetary resolution, and (5) no response. We included dummy variables for each of these response options.

passive-voice sentence corresponds to a 4% increase in the likelihood of dispute. We revisit the managerial implications of this insight in the General Discussion.

6. Study 2A: fault attributions and passive voice

Though passive voice predicted robustly escalation in study 1, recall it did not “cause” it per se. Per our theorizing, we propose indeed that passive voice *reveals* latent consumer-attitudes (i.e., fault attributions). And it is the latter (i.e., fault attributions) that cause escalation.

With this in mind, the present study shifts our focus to the connection between perceived responsibility and use of passive voice. Specifically, study 2A explores whether external fault-attributions (i.e., assigning responsibility for a negative experience to the service provider) are linked to passive voice in complaints. If our theorizing is correct, we should observe a positive association.

6.1. Method

Study 2A follows a one-group design wherein participants (Prolific; $N = 400$, $M_{\text{age}} = 40.4$, 53% female) completed an online survey in exchange of financial compensation. We asked subjects to describe a negative service experience they had had with a company. Instructions encouraged respondents to provide enough detail such that another person could understand the situation. From subscription cancellation to food delivery to landlord issues, participants discussed a wide range of issues.

To measure the independent variable (i.e., fault attribution), we asked participants to indicate the degree to which they thought the service provider was at fault for the issue (i.e., “How responsible do you think the company is for this issue?”). Answers were collected on a scale ranging from 1 (Not at all) to 7 (Very much).

To measure the dependent variable (i.e., number of passive-voice sentences), we used PassivePy (Sepehri et al., 2023). For details, see study 1’s method.

6.2. Results

As predicted, study 2A revealed a positive link between external attributions and passive voice. The more participants held the company responsible for the negative experience, the more their complaint held passive constructions ($r = 0.14$, $p = 0.004$).

To test robustness, we once again checked that the effect holds after controlling for complaint-length (i.e., total number of sentences written). It does ($r = 0.11$, $p = 0.02$). Similarly, adopting as DV the overall *percentage* of passive sentences (which itself controls for length) yielded the same result ($r = 0.11$, $p = 0.03$).

6.3. Discussion

From predictor in study 1, passive voice became the dependent variable in study 2A. Across hundreds of real-life experiences, we find that, the more people attribute fault to the service provider for a negative experience, the more they complain in passive voice. This aligns with our suggestion that linguistic structure (i.e., grammatical voice) offers a window into complainants’ state of mind.

7. Study 2B: manipulating perceived fault

Study 2B further examines the link between fault attribution and passive voice. Rather than adopting a correlational lens, however, study 2B manipulates perceptions of responsibility. So doing, the present study casts doubt on a range of confounds. Per our theorizing, we predict that negative experiences attributed to the service provider (rather than to the self) will cause consumers to use more passive constructions when complaining.

7.1. Method

Study 2B follows a two-group, between-subjects design. Participants (Prolific; $N = 174$, $M_{\text{age}} = 35.9$, 57% female) were randomly assigned to one of two treatment conditions (self at fault vs. company at fault).

As in study 2A, we asked subjects to describe a genuine, negative service encounter they had experienced. Unlike study 2A, however, study 2B manipulated responsibility. In the self-at-fault (company-at-fault) condition, participants were to recall an experience wherein they themselves (vs. a service provider) were responsible for the negative experience.

To measure the dependent variable (i.e., number of passive-voice sentences), we again used PassivePy (Sepehri et al., 2023). For details, see study 1’s method.

7.2. Results

An ANOVA revealed that participants who wrote about an experience where the company was (rather than they themselves were) at fault for the negative experience used more passive voice ($M_{\text{Company}} = 0.97$, $SD = 1.06$ vs. $M_{\text{Self}} = 0.63$, $SD = 0.86$, $F(1, 172) = 5.10$, $p = 0.02$, $\eta_p^2 = 0.03$).

For robustness, we verified again that the effect holds when controlling for overall complaint-length. Adjusting for the total number

of sentences written did not change the outcome ($F(1, 171) = 3.81, p = 0.05, \eta_p^2 = 0.02$). Similarly, adopting as DV the *percentage* of passive sentences (which, by itself, accounts for overall length) yielded similar results ($M_{\text{Company}} = 0.21, SD = 0.23; M_{\text{Self}} = 0.14, SD = 0.20, F(1, 172) = 3.73, p = 0.055, \eta_p^2 = 0.02$).

7.3. Discussion

Taking the experimental route, study 2B confirms the link between fault attributions and passive voice. Asking people to write about an experience where the company was (rather than they themselves were) at fault led participants to use 50% more passive-constructions.

Once again, documenting the effect across hundreds of real-world experiences speaks to the robustness and generalizability of this relation. Combined with its predecessor's, study 2B's results lend credence to our suggestion that passive-voice use offers a window into complainants' state of mind by leaking latent attitudes (i.e., fault attributions).

8. Study 3A: fault attributions in a fixed scenario

Study 3A extends study 2A in two ways. First, by augmenting our measure of fault attribution. Second, by addressing a potential confound.

Though study 2A infused realism by asking consumers to recall a personally-relevant negative-experience, one may wonder whether participants somehow recalled episodes that systematically correlate responsibility (of the service provider) with passive narration. To rule out this possibility, study 3A uses a more controlled design wherein all participants considered the same negative service encounter.¹⁰ The scenario did not assign blame to one party or the other, which gave subjects the flexibility to make this assessment on their own. After reading the scenario (described below), participants wrote a complaint, which we text-mined to measure passive-voice use.

We predicted that external fault-attributions (i.e., assigning responsibility for a negative experience to the service provider rather than to the self) would correlate with greater passive-voice use.

8.1. Method

Study 3A (preregistered¹¹) follows a one-group design wherein participants (Prolific; $N = 201, M_{\text{age}} = 43.52, 55.7\%$ female) completed an online survey in exchange of financial compensation.

As alluded above, instructions asked subjects to imagine that the following service experience had happened to them: "You are flying today. At the gate, an airline agent uses a sizer that seems slightly different from the one pictured on the website. Your bag almost fits; the wheels touch the rim. The posted size on the website and in your email matches the sign at the gate, but the sizer looks tighter. The agent explains that, because the flight is nearly full, they are enforcing the posted limits. You are charged a standard \$35 gate-check fee. You feel frustrated and unsure whether this was your oversight or tight enforcement."

On the next screen, we asked participants to (i) imagine they had decided to write a complaint and (ii) describe in their own words what happened. To keep length relatively constant, instructions asked to "type at least 4–5 sentences to give as much context and detail as necessary. From reading your description, another person should be able to understand fully the situation."

To measure our independent variable (i.e., fault attribution), we asked participants to complete three items: "In your opinion, who was [responsible / at fault / to blame] for the negative experience you described?" Answers were collected on 7-point scales anchored with 1 (Definitely myself), 4 (Equally myself and the company), and 7 (Definitely the company). The average of these three items formed our IV (Cronbach's $\alpha = 0.95$).

To measure our dependent variable (i.e., number of passive-voice sentences), we again used PassivePy (Sepehri et al., 2023). For details, see study 1's method.

8.2. Results

As predicted, a positive correlation emerged between external fault-attributions and passive voice. The more participants held the company responsible for the negative experience, the more they used passive constructions in their complaint ($r = 0.23, p = 0.001$).

For robustness, we again controlled for overall complaint-length. Accounting for the total number of sentences written did not alter the correlation ($r = 0.22, p = 0.002$). Similarly, adopting as DV the overall percentage of passive sentences (which, by nature, accounts for sheer length) yielded convergent results ($r = 0.22, p = 0.002$).

8.3. Discussion

Using a more comprehensive measure of fault attribution and a more controlled procedure, study 3A yielded results mirroring study 2A's: the more consumers attribute fault to a service provider, the more their complaint takes the passive form. This positive

¹⁰ We thank an anonymous reviewer for this insight.

¹¹ <https://aspredicted.org/2wcd-f2pm.pdf>.

correlation supports once again our contention that linguistic structure (i.e., grammatical voice) provides a window into consumers' state of mind.

9. Study 3B: manipulating fault in a fixed scenario

Emulating study 2B, study 3B adopts an experimental approach to probe the relation between fault attribution and passive voice. To this end, study 3B manipulates responsibility for a negative service encounter before asking participants to write a complaint. As in the previous three studies, we predict that passive-voice use will increase as responsibility (for the negative experience) shifts toward the service provider.

9.1. Method

Study 3B (preregistered¹²) follows a three-group, between-subjects design. Participants (Prolific; $N = 302$, $M_{\text{age}} = 42.96$, 49.3% female) were randomly assigned to one of three treatments (self at fault vs. balanced fault vs. company at fault).

To rule out potential confounds, all participants read about a similar negative experience wherein they were forced to gate-check their carry-on and pay a \$35 fee at the last minute.¹³ The manipulation hinged on contextual cues that nudged responsibility for the incident.

The neutral (i.e., balanced) scenario largely follows study 3A's. As they were about to board, participants learned that their carry-on does not fit the sizer, hence has to be checked. Responsibility for it, however, is unclear (it may be the traveler's or the airline's), which gives subjects latitude to assign blame. See full description in [table A3](#) of the [web appendix](#).

Participants in the self-at-fault and company-at-fault conditions faced the same predicament. They too were forced to gate-check and pay a \$35 fee but additional cues shifted responsibility toward the self (e.g., failure to observe size/weight regulations) or the airline (e.g., ambiguous rules, lack of consistency in enforcement).

Next, after picturing themselves in their assigned scenario, participants proceeded to writing a complaint. The latter formed the basis for our dependent variable: number of passive sentences. To approximate it, we used again PassivePy (Sepehri et al., 2023). For details, see study 1's method.

To validate that our independent variable (i.e., fault attribution) was properly operationalized, the next screen consisted of manipulation checks. Three questions asked participants whom they deemed responsible/at fault/to blame for their predicament (Cronbach's $\alpha = 0.98$). Answers were collected on 7-point scales whereon 1 = Definitely myself, 4 = Equally myself and the company, and 7 = Definitely the company.

9.2. Results

Manipulation check. An ANOVA and pairwise contrasts validated our manipulation ($F(2, 298) = 16.15$, $p < 0.001$, $\eta^2_p = 0.64$). Participants in the company-at-fault condition attributed more fault to the company ($M_{\text{Company at fault}} = 6.53$, $SD = 0.86$) than did counterparts in the balanced ($M_{\text{Balanced fault}} = 5.73$, $SD = 1.33$, $p < 0.001$) and self-at-fault conditions ($M_{\text{Self at fault}} = 2.39$, $SD = 1.66$, $p < 0.001$). The latter two conditions also differed significantly ($M_{\text{Balanced fault}} = 5.73$, $SD = 1.33$ vs. $M_{\text{Self at fault}} = 2.39$, $SD = 1.66$, $p < 0.001$).

Dependent variable. As predicted, an ANOVA revealed a main effect of responsibility on passive-voice use ($F(2, 299) = 16.15$, $p < 0.001$, $\eta^2_p = 0.1$; pairwise contrasts are displayed in [Fig. 2](#)). Participants who complained about an incident for which the company was responsible did so using more passive constructions ($M_{\text{Company at fault}} = 2.05$, $SD = 1.30$) than did counterparts: (a) in the balanced-fault condition ($M_{\text{Balanced fault}} = 1.54$, $SD = 1.13$) and, more importantly, (b) in self-at-fault condition ($M_{\text{Self at fault}} = 1.12$, $SD = 0.96$).

For robustness, we ran two ancillary analyses. First, controlling for overall complaint-length (i.e., for the total number of sentences written) confirmed the above findings ($F(2, 298) = 11.34$, $p < 0.001$, $\eta^2_p = 0.07$; $M_{\text{Company at fault}} = 2.05$, $SD = 1.30$ versus $M_{\text{Balanced fault}} = 1.54$, $SD = 1.13$, $p = 0.002$; and $M_{\text{Self at fault}} = 1.12$, $SD = 0.96$, $p < 0.001$). Second, substituting as DV the number of passive sentences by the overall *percentage* of passive sentences yielded convergent results ($F(2, 299) = 9.01$, $p < 0.001$, $\eta^2_p = 0.06$; $M_{\text{Company at fault}} = 0.43$, $SD = .26$ versus $M_{\text{Balanced fault}} = 0.32$, $SD = 0.23$, $p = 0.003$; and $M_{\text{Self at fault}} = 0.28$, $SD = 0.25$, $p < 0.001$).

9.3. Discussion

Just like the positive correlations of studies 2A and 3A converged, so did the experimental findings of studies 2B and 3B. The more consumers attributed responsibility for a poor experience to the service provider, the more they complained about it in passive voice. Study 3B documents this pattern using a subtle yet robust operationalization of fault whose three levels shifted responsibility from the self to a balanced (i.e., shared) equilibrium to the airline. These results affirm yet again our suggestion that passive voice offers in glimpse into consumers' state of mind.

¹² <https://aspredicted.org/rtmv-r693.pdf>.

¹³ We selected such a scenario because it is relatable.

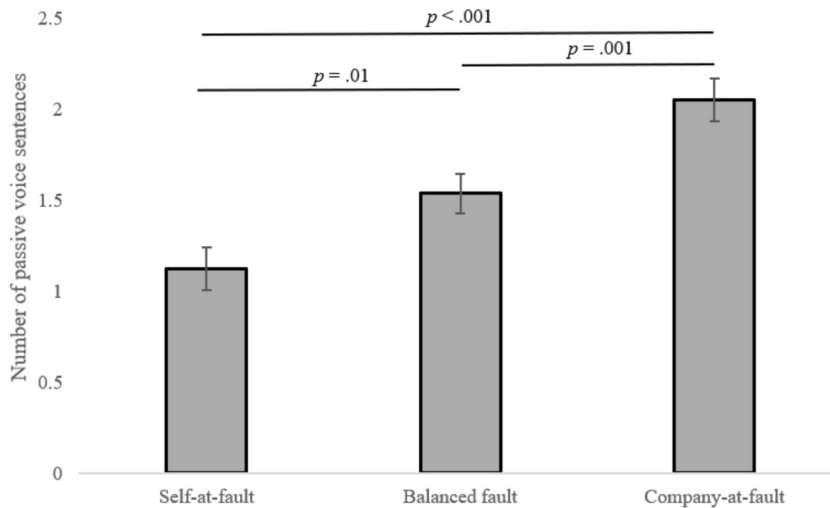


Fig. 2. External fault attributions increase the use of passive voice (Study 3B).

10. Study 4: exploring the role of natural use of passive voice

The final study has two main goals. First, we associate in a single study our three variables of interest: fault attribution, passive-voice use, and escalation tendencies. Second, we seek further evidence for the robustness of our findings. Specifically, we test whether the effect of fault attribution on passive-voice use survives after we control for consumers' natural (i.e., baseline) tendencies to write in passive form. A positive answer to the latter would rule out yet another competing explanation for our main effect.

10.1. Method

Study 4 (preregistered¹⁴) follows a two-group, between-subjects design. Participants (Prolific; $N = 348$, $M_{\text{age}} = 41.09$, 58.3% female) were randomly assigned to one of two treatments (self at fault vs. company at fault).¹⁵

At the onset, participants learned they would take part in two studies. The first enquired about their most recent vacation. Specifically, we asked: "Think of the last trip you took. In the space below, describe where you went as well as all the activities you undertook." This first narrative (which we text-mined using PassivePy (Sepehri et al., 2023)) gave us a baseline measure for each participant's natural use of passive voice (i.e., this was meant to serve as covariate in our analyses).

The seemingly-unrelated second-study began on the next screen. It is there that randomization of responsibility occurred. Emulating study 2B's instructions, participants in the self-at-fault (company-at-fault) condition were to recall a negative service encounter for which they themselves were (vs. a service provider was) responsible. To keep length relatively constant across conditions, we once again asked to write at least 4–5 sentences. The latter formed the basis for our main dependent variable (i.e., number of passive-voice sentences), which we computed with PassivePy (Sepehri et al., 2023). For details, see study 1's method.

After participants finished describing their negative service experience, we measured their fault attributions via the same three items described in studies 3A and 3B (i.e., In your opinion, who was [responsible/at fault/to blame] for the negative experience you described?). We collected answers on 7-point scales where 1 = Definitely myself, 4 = Equally myself and the company, and 7 = Definitely the company (Cronbach's alpha = 0.87).

Lastly, we collected escalation intent. Specifically, we asked: "Given the issue mentioned, how likely would you be to: (1) Write a negative online review about the company? (2) Complain to a manager in the company about the issue? (3) Tell your family, friends, or colleagues about your negative experience with the company?" Collected on three Likert scales ranging from 1 (not at all) to 7 (very much), answers were averaged to form a measure of escalation intent (Cronbach's alpha = 0.87). The study concluded by collecting basic demographics (i.e., age and gender).

10.2. Results

Passive voice. Controlling for participants' natural (i.e., baseline) use of passive voice, an ANCOVA revealed a main effect of responsibility. Participants who complained about a disappointing service encounter for which the company was responsible did so using more passive constructions than did counterparts in the self-at-fault condition ($M_{\text{Company at fault}} = 1.07$, $SD = 1.28$ vs. $M_{\text{Self at fault}} = 0.6$,

¹⁴ <https://aspredicted.org/5rrg-9prq.pdf>.

¹⁵ The total number of participants recruited was 401 but 13% were automatically removed based on pre-registered exclusion-criteria related to attention.

$SD = 0.70$, $F(1, 345) = 18.27$, $p < 0.001$, $\eta_p^2 = 0.05$).

Two additional ANCOVAs confirmed the robustness of this finding. First, by adding overall complaint-length (i.e., total number of sentences written) as a second covariate ($M_{\text{Company at fault}} = 1.07$, $SD = 1.28$ vs. $M_{\text{Self at fault}} = 0.60$, $SD = 0.70$, $F(1, 344) = 18.05$, $p < 0.001$, $\eta_p^2 = 0.05$). Second, by replacing as DV the number of passive sentences by the overall *percentage* of passive sentences ($M_{\text{Company at fault}} = 0.22$, $SD = 0.23$; $M_{\text{Self at fault}} = 0.15$, $SD = 0.22$, $F(1, 344) = 7.91$, $p = 0.005$, $\eta_p^2 = 0.022$).

Escalation. Expectedly, intent to escalate followed the same trajectory. Participants who wrote about an incident for which the company (rather than themselves) was at fault reported greater dispositions toward escalation ($M_{\text{Company at fault}} = 5.21$, $SD = 1.54$ vs. $M_{\text{Self at fault}} = 2.45$, $SD = 1.48$, $F(1, 346) = 286.35$, $p < 0.001$, $\eta_p^2 = 0.45$).

10.3. Discussion

Adding one layer of robustness (i.e., controlling for participants' natural (i.e., baseline) use of passive voice), study 4 echoes the findings of studies 2A, 2B, 3A, and 3B. Using an experimental route (i.e., between-subjects manipulation), we find again that, as responsibility for a negative experience shifts toward the service provider, consumer complaints take more passive constructions. This finding supports our argument that linguistic structure (specifically, the use of passive voice) provides insight into consumers' state of mind.

11. General discussion

Negative service experiences are common. Fees are charged unduly. Applications are mishandled. Documents arrive late. Bags and flights are delayed.

Such experiences have important effects on consumers and companies, from negative word of mouth to damaged customer loyalty to lost sales. Consistent with the prevalence and importance of poor-service encounters, decades of research have examined consumer complaints and downstream behaviors of complainants (Day et al., 1981; Fornell & Wernerfelt, 1987; Grégoire et al., 2009, 2010; Grégoire & Fisher, 2008; Knox & Van Oest, 2014).

Mindful of the above, our work began with a question. Could a subtle linguistic feature in the way consumers complain provide insights into (1) who they think is responsible for their negative experience and, relatedly (2) their likelihood to voice (or shout) their discontent? Exploring the interconnections between fault attributions, passive voice, and escalation likelihood, our multimethod investigation births several insights.

Results indicate that the linguistic structure of complaints (i.e., passive-voice use) provides a window into consumers' state of mind. The more consumers believe a service provider was responsible for a negative experience, the more they describe/complain about it in a passive voice. This occurs whether fault attributions were measured (studies 2A and 3A) or manipulated (studies 2B, 3B, and 4).

Moreover, we find that passive voice predicts escalation. Text analysis of over 160,000 real complaints from the Consumer Financial Protection Bureau (CFPB; study 1) reveals that consumers who use more passive constructions in their complaints are more likely to dispute the resolution offered by the other party. This holds even after controlling for a litany of competing explanations having to do with the complaint itself, the complainant, or the service provider's response. Regarding the latter, let us repeat for clarity that, though passive voice predicts escalation (per study 1's findings), it does not "cause" it. Rather, passive voice reveals latent consumer-attitudes (i.e., fault attributions); it is these fault attributions that trigger escalation (studies 1 and 4).

These findings emerge from a rich and robust empirical enquiry allying consequential field data to lab work, correlational approaches (studies 1, 2A, and 3A) to experimental manipulations (studies 2B, 3B, and 4), and hypothetical scenarios to lived-in experiences (studies 1, 2A, and 3A). Combined, our procedures and measures reinforce one another, lending credence to our conclusions.

12. Contributions and implications

This work makes important theoretical and managerial contributions. First, though prior text-analysis research examined various aspects of linguistic *content* (e.g., use of emotion or topics discussed; Berger & Milkman, 2012; Netzer et al., 2019; Tirunillai & Tellis, 2012) or *style* (e.g., pronouns, function words, storytelling, order of presentation; Packard et al., 2018; Packard & Berger, 2020; Sepehri et al., 2025; Sepehri et al., 2021; Sepehri et al., 2021), there has been much less attention paid to linguistic *structure*. Admittedly, structure is hard to measure; nonetheless, we demonstrate it can provide important insights. In our case, grammatical voice (i.e., active vs. passive constructions) sheds light on: (i) who consumers think is responsible for a negative service experience, and (ii) how likely they are to voice, shout, spread, and/or legalize their discontent. Hopefully, the present work will inspire other researchers to consider linguistic structure, not only what drives it but also its downstream consequences.

Second, while the burgeoning literature on consumer language provides valuable findings (for a review see Berger et al., 2020; Humphreys & Wang, 2018), most of this work focuses on language's impact. For example, how the words used in advertisements affect consumer choice (Fossen & Schweidel, 2017, 2019), or how the language used by service representatives impacts customer satisfaction (Packard, Moore, et al. 2018). Similarly, in the context of passive voice, work has shown that *reading* passive voice can shape psychological distance (Anisfeld & Klenbort, 1973; Burgoon, 2018; Wiener & Mehrabian, 1968), blame (Bohner, 2001; Frazer & Miller, 2009; Henley et al., 1995; Lamb, 1991), and level of construal (Chan & Maglio, 2020). But language serves a dual role. Beyond impacting the audience that consumes it, language also *reflects* things about the people, companies, and cultures that produce it (Berger et al. 2020). Testifying to the latter, we demonstrate that language provides insights into complainants' thoughts, attitudes, and even what actions they are likely to take in the future.

Third, our findings have clear strategic implications for executives. Whether for profit, NGOs, or public administrations, organizations have currently no means to identify *ex ante* which dissatisfied customers, users, or citizens will escalate their complaint. Yet, escalation behaviors are costly (e.g., financial compensations paid out, lost business, personnel dedicated to handling complaints, damages to public image). From a managerial standpoint, then, one of our key contributions is to suggest an automated and affordable approach to identify early which dissatisfied patrons are likely to escalate. In turn, this capability enables organizations to prioritize their resources toward the more-critical complainants, thereby minimizing the risks and costs aforementioned. In a competitive environment, the latter constitutes a strategic edge.

13. Directions for future research

Our findings suggest interesting directions for future research. While we focused on complaints, passive voice also plays out in a variety of other contexts. For instance, when pitching for venture capital or when launching Kickstarter campaigns, entrepreneurs often talk about their ideas. Passive voice might drive fundraising by impacting how closely-connected the entrepreneur seems to his/her/their idea. Compared to saying “this application has been developed to tackle obesity,” saying “I developed this application to tackle obesity” suggests greater ownership. Whether this is good or bad, however, may depend on the situation. If VCs like the entrepreneur, such ownership may encourage funding. But if they don’t, such ownership may backfire.

Similarly, future work may examine how passive voice shapes the helpfulness of online reviews. On one hand, it is conceivable that passive voice makes reviews seem more helpful because it focuses on the product rather than the user (e.g., “This product has been in use for 3 months” vs. “I have been using this product for 3 months”). Accordingly, passive voice may make the experience seem less subjective and more generalizable, which should increase helpfulness. On the other hand, the fact that passive voice distances the author from the content may lower perceived credibility, which could have detrimental effects.

Future forays may also examine how different *modalities* shape the use and impact of passive voice (Hagtvedt & Brasel, 2016). Writing, for instance, often involves more deliberation than does speaking, which can in turn influence the content produced (Berger et al., 2022). Bringing this insight to bear in our context, deliberation may: (i) encourage people to consider who is at fault, and accordingly (ii) cause consumers who think they are blameless to use more passive voice. More broadly, future work might examine whether writing leads to greater use of passive voice, particularly when people think they are not at fault.

Research could also consider individual differences. Variation in assertiveness and aggressiveness (Richins, 1983, 1987) have been linked to complaining. Future work may examine whether individuals high on these traits are more likely to use passive voice as well.

14. Conclusion

In conclusion, the present work demonstrates that a subtle linguistic feature (in how consumers complain) provides important insights into: (i) whom consumers see at fault, and (ii) how they may behave in the future. In doing so, this article sheds light on the interaction between language and consumer behavior, and its marketplace implications.

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CRediT authorship contribution statement

Amir Sepehri: Writing – review & editing, Writing – original draft, Visualization, Validation, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Rod Duclos:** Writing – review & editing, Supervision, Resources, Methodology, Conceptualization. **Jonah Berger:** Writing – review & editing, Supervision, Project administration, Methodology, Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix A. Supplementary material

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.ijresmar.2026.04.004>.

Data availability

Data will be made available on request.

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