International Communication Association

OXFORD

The role of audience favorability in processing (un)familiar messages: a heuristic-systematic model perspective

Jiyeon So [1,*], Jiaying Liu [2,3]

[1]Department of Communication, Yonsei University, Seodaemun-gu, Seoul 03722, South Korea
[2]Department of Communication Studies, University of Georgia, Athens, GA 30602, USA
[3]Department of Communication, University of California Santa Barbara, Santa Barbara, CA 93106, USA
*Corresponding author: Jiyeon So. Email: jso@yonsei.ac.kr

Abstract

Several mechanisms of processing (un)familiar messages—processing fluency, message fatigue, interest, and counterarguing—are documented but studied independently, preventing a holistic understanding of how we process (un)familiar messages. This research integrates these mechanisms under a coherent theoretical framework based on heuristic-systematic model and identifies which one becomes dominant as a joint function of message familiarity and audience favorability. Across two studies concerning social distancing (Study 1; $N=412$) and smoking (Study 2; $N=300$), message fatigue and counterarguing were heightened in unfavorable audiences processing familiar and unfavorable messages, respectively. Interest was dominant among favorable audiences processing unfamiliar messages in Study 2. Processing fluency was not heightened under any conditions. In models testing mediational capacities of the four mechanisms simultaneously, message fatigue and interest were significant mediators of the effects of audience favorability and message familiarity on persuasion, respectively. This research underscores the importance of considering audience favorability when studying the effects of message familiarity.

Keywords: heuristic-systematic processing model, message familiarity, audience favorability, biased processing, message fatigue, processing fluency

Issues that have potential to exert significant impact on the society receive greater public attention than other issues, resulting in repeated exposure to similar messages about these prominent issues. The accumulated exposure brings with it increased opportunities for message processing that heightens familiarity toward a class of messages, which is a theoretical driver of message repetition effects.[1] Given this, our knowledge on the effects of message familiarity and resultant processing is pivotal to understanding the effects of prevalently available messages on these prominent issues. Despite this role message familiarity plays and the pervasiveness of familiar messages about socially significant issues in everyday life, our understanding on this subject is limited (Koch, 2017). One contributing factor is the dominant research paradigm that does not typically take prior accumulated exposure and resultant familiarity into consideration and examines message effects in a vacuum (Cho & Salmon, 2007). Another contributing factor lies within a few lines of research that addresses this topic: Even when the effects of accumulated message exposure are studied as a focal topic, only a particular aspect of the phenomenon is considered at a time without incorporating various mechanisms that may be instigated simultaneously by message familiarity (Dillard, 2020; Koch, 2017).

Some promising lines of research developed independently point to several mechanisms that may be at play when processing familiar messages. For example, familiarity induced by prior processing has been shown to facilitate favorable mechanisms such as processing fluency (Schwarz, 2012) and the resultant truth effect (Dechêne et al., 2010). However, there are also notable lines of research that tell the other side of the story: Some research shows that familiarity caused by accumulated exposure may increase unfavorable processes such as message fatigue (So

et al., 2017), perceived persuasive intent, and reactance (Koch & Zerback, 2013). As they all arise from a common antecedent (i.e., message familiarity), these mechanisms may co-occur and influence persuasive outcomes collectively, perhaps in a countervailing way (Dillard, 2020). However, as research on these mechanisms mostly developed independently from each other, our understanding of the holistic dynamics involved in processing of familiar (versus unfamiliar) messages remains insufficient (Dillard, 2020). This research addresses two related inquiries that arise from this discussion: Which mechanism concerning processing of (un)familiar message prevails under which conditions? Do these mechanisms operate simultaneously and if so, how do the co-occurring pathways explain the effects of (un)familiar messages on persuasion?

We seek to take the challenge of "untangling the operation of these processes" (Dillard, 2020, p. 121) by integrating these mechanisms under a coherent theoretical framework based on heuristic-systematic model (HSM; Chaiken, 1980). Drawing from HSM's notions of the sufficiency principle and multiple-motive framework, we delineate how message familiarity and audience favorability—the degree to which one is favorably or unfavorably predisposed toward a message advocacy (O'Keefe, 1999)—will jointly determine which mechanism will become dominant. In addition to this primary inquiry, we will also examine how these mechanisms influence persuasive outcomes concurrently when taken into consideration simultaneously.

HSM of information processing

HSM (Chaiken, 1980) is a dual-process model that delineates two different modes of information processing. Systematic

processing entails a comprehensive and analytic treatment of judgment-relevant information. Judgments made through this effortful mode of processing are based on judgment-relevant information and require substantial cognitive efforts. Heuristic processing, on the other hand, involves the use of simple judgmental rules or heuristics in processing messages. Unlike the systematic one, heuristic processing requires minimal cognitive efforts as it involves the use of simple heuristics as mental shortcuts in processing messages.

The sufficiency principle

HSM proposes the sufficiency principle as a theoretical mechanism that allows us to predict when one mode of processing will dominate over the other. Based on the premise of cognitive miser (Fiske & Taylor, 1991), which maintains that humans strive to minimize cognitive efforts as much as possible to conserve limited cognitive resources, HSM assumes that heuristic processing is the default mode that usually predominates over systematic processing (Chen & Chaiken, 1999). However, in situations that give rise to motivational concerns beyond cognitive economy, HSM predicts that heuristic processing may not be sufficient in achieving the judgmental goals one has. In this situation, according to the sufficiency principle, one would strive to strike a balance between minimizing cognitive efforts and satisfying their salient motivational concerns (Chen & Chaiken, 1999).

This idea is conceptualized in a continuum of judgmental confidence, where two critical points lie: One representing actual level of confidence and the other designating desired level of confidence (Chen & Chaiken, 1999). The sufficiency principle postulates that one would exert cognitive effort until these two critical points meet. When one's motivational concern other than cognitive economy (e.g., accuracy motive or the desire to form valid and accurate judgment) is high, desired level of judgmental confidence increases, enlarging the gap between the two points. In such situation, one would move out of the default mode of heuristic processing and resort to systematic processing, which increases judgmental confidence much more efficiently via thoughtful analysis of the message.

Implication on processing (un)familiar messages

This fundamental principle offered in HSM has important implications for processing (un)familiar messages. When processing a familiar message, the recognition that one has processed similar messages before likely increases one's judgmental confidence. There may be several reasons for this. First, with accumulated processing opportunities that had led to perceived familiarity, one may have elaborated on the message several times, giving them a legitimate reason to be confident about their judgments. Second, message familiarity may be adopted as a heuristic that provides an illusion of judgmental confidence (or "feeling of knowing"; Reder & Ritter, 1992). Several lines of research support this claim. For example, familiarity of a given task gave participants a feeling that they knew the answer, which promoted adoption of less effortful processing strategies (Reder & Ritter, 1992). Research on repetition-induced truth effect resonates with this point. Message familiarity has been shown to facilitate the perceptions that the message is true, which reflect high judgmental confidence (Dechêne et al., 2010). This process is understood to be induced by heuristic processing where the recognition that one has encountered the message before is used as a

heuristic that guides their judgments about the message (Dechêne et al., 2010). Either way, message familiarity is expected to increase judgmental confidence, which reduces the gap between actual and desired level of confidence. The sufficiency principle dictates that in such situation heuristic processing will prevail as there would be little to no motivation for effortful processing.

In contrast, unfamiliar messages likely induce lower levels of judgmental confidence than familiar ones. This is because, when processing unfamiliar messages, familiarity heuristic that can boost one's (false) confidence is not applicable. On top of the relatively low judgmental confidence, unfamiliar messages may entail *new* information that may be deemed worth the cognitive investment: While effortful processing of familiar stimuli would be considered a waste of cognitive energy, exerting such effort on novel stimuli, which may provide additional information aiding survival, would be deemed worthwhile (Garcia-Marques & Mackie, 2001). In other words, novelty may prompt greater motivations for careful processing due to potential informational utility. Thus, it is expected that unfamiliar messages, which lower actual confidence but increase desired confidence, will facilitate the adoption of systematic processing.

The idea that familiarity determines processing modes has received some empirical support. For example, Garcia-Marques and Mackie (2001) proposed message familiarity as a regulator for processing mode activation and found that unfamiliar stimuli facilitated analytic (systematic) processing, while familiar stimuli led to non-analytic (heuristic) processing. Similarly, Shi and Smith (2016) found that repeated exposures to fear appeals reduced the dominance (i.e., proportion) of systematic processing but increased that of heuristic processing. Thus, given the likelihood of the two modes co-occurring (Chen & Chaiken, 1999), we predict the following effects of message familiarity on relative dominance of one mode over the other.

> **H1**: Unfamiliar messages will facilitate the dominance of systematic over heuristic processing to a greater degree than familiar messages.

Multiple-motive framework

In addition to the sufficiency principle, HSM proposes multiple-motive framework, which predicts how different *types* of motives may exert distinct impact on the *nature* of message processing (Chen & Chaiken, 1999). Specifically, HSM postulates accuracy, defense, and impression motives as three major motivations that may determine the nature of processing. Of these three, accuracy and defense motives are closely related to each other as they reflect the pivotal role of audience favorability in determining the degree of biased processing. Audience favorability refers to the degree to which one is favorably or unfavorably predisposed toward a message advocacy (O'Keefe, 1999), which represents one's predisposed partisanship (Pratkanis & Aronson, 1992), or latent readiness for biased processing of related incoming messages. The concept has been discussed extensively in message sidedness research as a potential moderator of one- versus two-sided message effects (Shen & Bigsby, 2013), based on an argument that it activates different motives for processing messages advocating for a viewpoint one is (un)favorably predisposed to (Allen, 1991). Similarly, but more specifically,

HSM integrates this notion in a form of preexisting attitude in its multiple-motive framework and postulates that defense motives fueled by unfavorable preexisting attitude increase biased processing, while accuracy motives decrease it (Chen & Chaiken, 1999).[2] To conclude, HSM suggests that audience favorability is responsible for the activation of accuracy or defense motives, which, in turn, influence the degree of biased processing. Thus, we will focus on these two motives in the following discussion on the mechanisms expected to be salient when processing unfamiliar messages.[3]

Systematic processing of unfamiliar messages: which motive?

Accuracy motive for favorable audiences: Unfamiliarity as interesting

Accuracy motive is characterized by "an open-minded and evenhanded treatment of judgment-relevant information" (Chen et al., 1999, p. 45). Thus, systematic processing taking place as a response to it would be neutral and open to any conclusions based on careful evaluation of the message given the goal of making sound judgments. In the initial formulation of HSM, accuracy motive was considered as most fundamental in guiding systematic processing, particularly when the issue the message concerns is personally relevant (Chen & Chaiken, 1999).

While unfamiliarity may lead to a host of different responses (e.g., uncertainty), research in psychology suggests that interest is likely to be the most salient one evoked (Silvia, 2005), particularly among unbiased, accuracy-motivated processors. Interest is understood to be primarily caused by appraisals of novelty or unfamiliarity (Berlyne, 1960). On top of its relevance to unfamiliar messages, research suggests that interest instigates a careful and open-minded processing (Silvia, 2005), which is the hallmark of accuracy-motivated processing (Chen & Chaiken, 1999). For example, people pay more attention to interesting texts and process them more deeply (Schiefele, 1999). Interest is also associated with curiosity, exploration, and desire for more information (Silvia, 2005), which all reflect open-mindedness or "thinking things through and examining them from all sides" (Park & Peterson, 2009, p. 2). Thus, interest can be understood as a response an open-minded, accuracy-motivated processor, who does not hold preexisting hostility toward message advocacy (i.e., favorable individuals), would exhibit when processing an unfamiliar message. Thus, we predict:

> **H2:** Favorable audiences who are exposed to unfamiliar messages will report higher levels of interest than unfavorable ones.

Defense motive for unfavorable audiences: Unfamiliarity scrutinized with counterarguing

Multiple-motive framework postulates that not all systematic processing aims at reaching accurate judgments. One's existing stance that may be incongruent with the message advocacy, which reflects audience unfavorability, may instigate defense motive (Chen & Chaiken, 1999). Defense motive reflects "a desire to form judgments congruent with one's perceived material interests or self-definitional beliefs" (Chen et al., 1999, p. 45). When defense motive is high enough to activate effortful processing, defense-motivated systematic processing, which is characterized by biased scrutiny of judgment-relevant information, takes place. During this biased processing, information consistent with one's existing beliefs is judged favorably, while counter-attitudinal content is scrutinized, resulting in counterarguing, or generation of thoughts that dispute the message arguments, in an effort to derogate the validity of the message (Chen et al., 1999). Empirical research generally supports this idea: Smokers who tend to process antitobacco messages defensively counterargued more than nonsmokers when processing antitobacco messages (Hwang, 2010).

Given these sets of predictions of HSM, individuals who are unfavorably disposed toward message advocacy will process unfamiliar messages in a biased way. As opposed to perusing the unfamiliar message with an open-minded interest, they will likely be motivated to find flaws in the message to preserve their existing beliefs. We expect this biased systematic processing to manifest in heightened levels of counterarguing among unfavorable audiences.

> **H3:** Unfavorable audiences who are exposed to unfamiliar messages will report higher levels of counterarguing than favorable ones.

Heuristic processing of familiar messages: which heuristic cue?

For a heuristic to be used in message processing, three conditions for heuristic activation—availability, accessibility, and applicability—must be met (Higgins, 1989). That is, a heuristic not only needs to be stored in memory (availability) and readily retrievable (accessibility) but also needs to be deemed relevant and suitable (applicability) to the processing of a given message to be actually used as a judgmental guide.

Chen and Chaiken (1999) put a particular emphasis on applicability in heuristic processing and stated that heuristics may be differentially applicable for different individuals, "depending on the nature and extent of prior processing in these tasks" (p. 84). They integrated the concept of applicability into the multiple-motive framework and proposed the notion of "motivated heuristic processing" (p. 85), which is characterized by selective activation of a particular heuristic that facilitates the fulfillment of a goal one has due to an existing attitude or processing experience. For example, when processing a counter-attitudinal message (i.e., low audience favorability context), one may selectively choose to invoke a judgment-relevant heuristic that supports and preserves one's existing attitude out of defense motive. This reflects the basic tenets of classic functional theories of attitude (Eagly & Chaiken, 1998), which contend that existing attitudes serve specific functions in message processing and fuel diverse processing motives. In sum, motivated heuristic processing suggests that individuals who are unfavorably disposed toward message advocacy due to their preexisting attitudes would utilize a set of heuristics that are likely to be very different from the ones utilized by their favorable counterparts.

Emphasizing on the potential of internal sources of information serving as heuristic cue in heuristic processing, Chen and Chaiken (1999) proposed that subjective experience of message processing may serve as an important piece of heuristic-cue information. Although using different sets of terminologies, this idea very much resonates with Schwarz's notion of naïve theory (2015), which essentially proposes that our thoughts about our own processing experiences (i.e., metacognition) exert significant impact on judgments [see

Bellur & Sundar (2014) for a related discussion]. Although Chen and Chaiken (1999) argued that taking existing attitude and subjective experience into consideration would allow for a more precise prediction on which heuristics would be activated in motivated heuristic processing, it remained a general principle that awaits application in a specific message context. Thus, integrating the notions of motivated heuristic processing and judgmental impact of subjective processing experience, we investigate how individuals with different degrees of preexisting favorability toward message advocacy would selectively use different types of subjective processing experience as a central heuristic-cue information when processing familiar messages.

Processing fluency for favorable audiences: Familiarity as easy to process

A subjective experience most relevant to familiarity is processing fluency (Schwarz, 2012). Processing fluency, which refers to "the subjective experience of ease with which people process information" (Alter & Oppenheimer, 2009, p. 219), has been the primary focus of research concerning the impact of experiential aspects of message processing (Schwarz, 2015).

Individuals may find a given message to be easy to process for many different reasons (e.g., being internally coherent) but the one that is particularly germane to this current research is familiarity caused by prior exposures. One very frequently used naïve theory is the assumption that familiar stimuli are easier to process than unfamiliar ones (Schwarz, 2012). Although it is referred to as a *naïve* theory, a large body of empirical evidence including neural, biological one (e.g., Zebrowitz & Zhang, 2012) has documented that familiarity indeed increases processing fluency (Alter & Oppenheimer, 2009). Perhaps due to its robust experiential validations in everyday lives, naïve theory about familiarity is so deeply engraved in human cognitions such that we often automatically attribute the ease of processing to familiarity caused by prior exposures (Schwarz, 2012).

Thus, we expect this subjective processing experience to be salient when one is exposed to a familiar message in circumstances that do not invite biased processing. That is, when there is no substantial motivation to process the message in a biased way (as unfavorable audiences would), processing fluency, which is the most basic metacognition associated with processing of familiar stimuli (Schwarz, 2012), will serve as the core heuristic-cue information that governs the heuristic processing. In sum, we expect this prediction to hold for favorable audiences.

> **H4:** Favorable audiences who are exposed to familiar messages will experience higher levels of processing fluency than unfavorable ones.

Message fatigue for unfavorable audiences: Familiarity as redundant and boring

Based on the notion of motivated heuristic processing, we anticipate familiar messages to trigger a different subjective processing experience in people who are unfavorably disposed toward message advocacy. Since materials incompatible with one's belief are more difficult to process than compatible ones (Schwarz, 2015), the role of processing fluency would be subdued in unfavorable audiences by other subjective processing experience that is more salient to them.

A subjective experience of processing familiar message that is relevant to unfavorably disposed individuals is message fatigue (So et al., 2017). Message fatigue refers to "an aversive motivational state of being exhausted and bored by overexposure to similar, redundant messages" (p. 10). While processing fluency focuses on the positive aspects of message familiarity by showing its associations with positive processing outcomes (Schwarz, 2012), message fatigue sheds light on the other side of the same picture by showing how message familiarity induced by accumulated exposure may result in counterproductive outcomes such as decreased favorable attitude and increased levels of active (i.e., reactance) and passive forms of resistance (i.e., inattention) toward persuasion (Kim & So, 2018).

Building upon the notion of motivated heuristic processing, unfavorable audiences are expected to engage in biased selection of subjective experience that fulfills their defensive goals (Chen & Chaiken, 1999). When processing familiar messages they have been exposed to before, the sense of redundancy coupled with their defense motivation will make message fatigue a more applicable and salient subjective experience that will serve as central heuristic-cue information in their (biased) motivated heuristic processing. Thus, we predict the following:

> **H5:** Unfavorable audiences who are exposed to familiar messages will experience higher levels of message fatigue than favorable ones.

For clarity, the four preceding predictions (H2–H5) that identify the most dominant mechanism in respective conditions born out of the variations in message familiarity (familiar vs. unfamiliar) and audience favorability (favorable vs. unfavorable) are summarized in Table 1.

Countervailing effects of the four mechanisms

While rare, there have been some notable efforts delineating how these four mechanisms may co-occur when processing (un)familiar messages. For example, Koch and Zerback (2013) tested two counteracting mechanisms of message repetition effects—persuasive intent and the truth effect—simultaneously in a single model. They showed that these two mechanisms co-occur and influence message credibility simultaneously but in an opposite direction. Accumulated message exposures led to greater perceived persuasive intent, which led to increased reactance and consequently lowered message credibility indirectly. However, message repetition also directly increased message credibility, arguably as a manifestation of the truth effect, which is assumed to be mediated by processing fluency (Dechêne et al., 2010).

While Koch and Zerback's (2013) study did not squarely examine the variables we study here, counterarguing was included as an item measuring reactance and the truth effect have been shown to be mediated through processing fluency (Dechêne et al., 2010). Thus, we believe these findings add support to Dillard's (2020) insight that they may be countervailing processes that coproduce persuasive outcomes. We seek to test the validity of this statement by examining the mediating roles of these mechanisms simultaneously in a multi-path, single model.

> **RQ1:** Do these mechanisms co-occur as mediators accounting for the effects of message familiarity and audience

Table 1. Predictions of most dominant mechanism involved in processing of familiar versus unfamiliar messages

favorability on persuasion? If so, what are their unique roles when examined simultaneously?

Method

Study design and procedure

To increase the generalizability of the findings, two studies that were conceptual replications of one another but differed in message advocacy, operationalization of audience favorability, and study populations were conducted. Both studies were conducted online and adopted a 2 (message familiarity: familiar vs. unfamiliar) × 2 (audience favorability: favorable vs. unfavorable) between-subjects design. Study 1 employed messages advocating for social distancing policy as a response to COVID-19 pandemic. Study 2 concerned messages describing how smoking cessation can prevent severe COVID-19 complications in smokers.

In each study, before message exposure, participants reported demographic and other information that served as a proxy for preexisting audience favorability (see the *Measurement* section). Then they read one of two persuasive messages that varied in terms of familiarity of the message frames and responded to questions that assessed the key variables involved in this research.

Participants

In both studies, adults 18 and older residing in the United States were recruited through *Qualtrics* Panel Services. A priori power analysis indicated that the required sample size to achieve 90% power for detecting an effect size of Cohen's $f = .20$ at a significance criterion of $\alpha = .05$ was $N = 265$. Participants in Study 1 ($N = 412$) were 46.8 years old on

average ($SD = 17.6$), 52.43% female, with 81.07% describing themselves as Caucasian, 5.83% as African American, 6.07% as Asian or Pacific Islander, 1.70% as Hispanic, 1.93% multiracial, and 3.40% others. In Study 2, current smokers ($N = 300$) with a mean age of 56.6 years ($SD = 12.4$) participated. The majority was female (59.67%) and described themselves as Caucasian (84.67%), with the remainder identifying as African American (8.67%), Asian (1.67%), Native American (0.33%), multiracial (2.67%), Hispanic (0.67%), and others (1.00%). On average, they smoked about 26 days during the past 30 days ($SD = 8.39$) and consumed about 13 cigarettes per day ($SD = 9.89$).

Message stimuli

Message familiarity was manipulated by employing two message frames concerning the same social issue but differing in how frequently these frames have been communicated in the message environment. Manipulating message familiarity through varied message frames allowed us to keep the social issue consistent across the two message conditions while manipulating participants' familiarity to the messages. This methodological choice also enhanced the ecological validity of our study in that the difference in message familiarity across the conditions was formed naturally through prior exposures in everyday lives.

Issues related to COVID-19 served as a suitable context for the natural induction of message familiarity due to the intense media coverage and interpersonal communication about them at the time of data collection. At the designing phase of Study 1 (April 2020), the most prominent and pervasive message frame on social distancing concerned social distancing policy as a way of *saving lives*. Thus, we chose this as the familiar message frame given the expected intense accumulation of

exposures to this frame. Next, we searched for messages advocating for social distancing policy but focusing on an aspect that was less prominently addressed in the message environment. A message frame advocating for social distancing as a way to *save the economy* fit the bill and was adopted as the unfamiliar message frame. The data collection took place between late April and early May 2020. Both messages were about 270 words.

Study 2 (October 2021) focused on health complications of COVID-19 infection among smokers, with the familiar message employing a recurrent frame of "smokers get COVID-19 *lung* complications," and the unfamiliar message addressing a less frequently discussed frame, "smokers get COVID-19 *brain* complications." Both messages were about 310 words.[4]

Measurement

All items were measured with a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) unless otherwise noted. Similar sets of questions, adjusted for topic and study context difference, were used in both studies.

Manipulation check

To ensure the message familiarity manipulations were successful, perceived message familiarity was measured with items including "I'm familiar with the reasons for [the topic] provided in the message I just read" (Study 1: $M = 5.60$, $SD = 1.31$, $\alpha = .90$; Study 2: $M = 3.48$, $SD = 1.99$, $\alpha = .95$). To rule out potential confounding effects of message quality, perceived message quality was measured with a semantic differential scale with anchors such as questionable/indisputable, unclear/clear, and illogical/logical (Study 1: $M = 5.84$, $SD = 1.14$, $\alpha = .91$; Study 2: $M = 5.50$, $SD = 1.47$, $\alpha = .93$). In Study 2, message credibility was measured to rule out possible confounding effects as well ($M = 5.29$, $SD = 1.64$, $\alpha = .93$).

Message elaboration

The relative dominance of systematic over heuristic processing was assessed with message elaboration (i.e., the degree of cognitive effort invested in message processing). According to the HSM's sufficiency principle, the defining characteristics of the two processing modes involve one common criterion, which is cognitive elaboration. When heuristic processing, which is born out of cognitive miser motive, is dominant, cognitive elaboration is necessarily low, regardless of the types of heuristics used. However, as systematic processing becomes more dominant, as a function of increased motive to process it more effortfully, it will necessarily manifest in higher levels of elaboration. Thus, message elaboration was adopted as a theoretically valid indicator of the relative dominance of one processing mode over the other. The evaluative processing dimension of Reynolds' (1997) message elaboration scale (see Carpenter & Boster, 2013) was used to assess the construct. Items included: While reading the message, "I was attempting to analyze the issues in the message" (Study 1: $M = 5.59$, $SD = 1.16$, $\alpha = .85$; Study 2: $M = 5.16$, $SD = 1.22$, $\alpha = .83$).

Message fatigue

Message fatigue was measured with So et al.'s (2017) scale. Seventeen items from the original scale were used in Study 1, while a validated brief scale with eight items were used in Study 2 for parsimony (see Song & So, 2023). Items included: "I have heard enough about how important it is to [topic]" and "There are simply too many messages about [topic]"

(Study 1: $M = 4.23$, $SD = 1.48$, $\alpha = .95$; Study 2: $M = 4.25$, $SD = 1.71$, $\alpha = .95$).

Processing fluency

Processing fluency was assessed with items adapted from Graf et al.'s (2018) scale, including "The message was easy to read through" (Study 1: $M = 6.22$, $SD = 1.01$, $\alpha = .90$; Study 2: $M = 5.74$, $SD = 1.17$, $\alpha = .94$).

Counterarguing

Counterarguing was measured with four items adapted from Moyer-Gusé and Nabi (2010). Items included "I found myself looking for flaws in the message presented" (Study 1: $M = 2.96$, $SD = 1.89$, $\alpha = .94$; Study 2: $M = 2.60$, $SD = 1.65$, $\alpha = .94$).

Interest

Interest in the messages was measured with items adapted from Silvia (2005) including, "I would be interested in reading other messages like the one I read here" (Study 1: $M = 5.04$, $SD = 1.51$, $\alpha = .77$; Study 2: $M = 4.69$, $SD = 1.72$, $\alpha = .93$).

Audience favorability[5]

In Study 1, based on moral foundations theory (Haidt & Graham, 2007), audience favorability toward social distancing policies was operationalized as political orientation. According to moral foundations theory, there are five dimensions of moral foundations: (a) harm/care, (b) fairness/reciprocity, (c) ingroup/loyalty, (d) authority/respect, and (e) purity/sanctity. While liberals construct their moral systems primarily on the first two dimensions—care and fairness—conservatives construct theirs based on all five foundations. Tarry et al. (2022) argue that this difference had an important consequence for the support of social distancing policy, which purports to reduce *harm* of infection to not only self but also to others, thus making it important to follow it in *fairness* to others (Byrd & Białek, 2021). To liberals, whose moral systems rest heavily on harm and fairness foundations, social distancing policy represents a high-priority moral value. However, to conservatives, who also equally care about the other three moral foundations, including loyalty (e.g., maintaining social connections with ingroup members) and authority (e.g., supporting in-group authority figure, such as President Trump), social distancing policy was not reasonable (Christensen et al., 2020). The idea that political orientation may serve as a well-fitting, context-specific operationalization of audience favorability is supported empirically in numerous studies demonstrating that political orientation is one of the strongest predictors of support for social distancing policies: Liberals held more favorable attitude toward social distancing policies and reported to comply more with the policies than conservatives (Allcott et al., 2020; Conway et al., 2021; Tarry et al., 2022).

Participants were asked to indicate their political orientation on a semantic differential scale with a set of bipolar anchors of liberal/conservative, support democrats/support republicans, and left wing/right wing ($M = 4.37$; $SD = 1.91$; $\alpha = .91$). To facilitate testing of hypotheses that were organized in a 2×2 fashion (H2–H5; see Table 1), we then created the audience favorability variable through a median split of the original continuous variable, with participants having a score lower than the median (4.33) categorized as favorable audience, and those with scores higher than the median as unfavorable audience.

In Study 2, audience favorability was operationalized as participants' stage of change regarding smoking cessation based on transtheoretical model (Prochaska & DiClemente, 1983). The model delineates the process through which individuals modify their problematic behaviors with five key stages of change including precontemplation, contemplation, preparation, action, and maintenance stage. The five stages represent an increase in one's readiness to change, with the lowest level of such motivation in the precontemplation stage. People in precontemplation stage are characterized by denial of the relevance of the behavioral change (Littell & Girvin, 2002), thereby representing a group of people who are essentially opposing to the message recommendation to change. Thus, they can be considered as a classic example of unfavorable audiences toward messages advocating for a behavioral change. Other people in more advanced stages, however, would be more favorably disposed toward a message recommending a behavioral change because they have already accepted the need to change. Indeed, Cho and Salmon (2006) found that individuals in the precontemplation stage were much more unfavorably disposed, exhibiting greater levels of defensive processing of the incoming message advocating a behavioral change than those in more advanced stages.

To measure stages of change, participants were asked to select one out of six statements that best described their current readiness to quit smoking (see Cho & Salmon, 2006). The statements described different stages of changes including precontemplation, contemplation, preparation, action, and maintenance. If participants chose either "I don't ever want to quit smoking" or "I have not been taking any actions to quit smoking and do not plan to do anything about my smoking in the next six months," they were categorized as being at the precontemplation stage. Participants who chose any of the other statements were categorized as contemplation stage and up. Since smokers at the precontemplation stage are more likely to defensively respond to messages promoting smoking cessation with rejection or hostility (Cho & Salmon, 2006), we categorized participants at the precontemplation stage as unfavorable audience (36.67%) and those at contemplation stage and up as favorable audience.

Persuasion outcomes

As the messages in Study 1 advocated for social distancing policy, support for social distancing policy was measured as the persuasion outcome in Study 1, with two items including "All public spaces that attract large gathering should be shut down completely till the COVID-19 is all cleared up" ($M = 5.38$; $SD = 1.67$; $r = .83$). Since the messages in Study 2 described smoking cessation as a way to prevent severe COVID-19 complications, the persuasion outcome was operationalized as perceived effectiveness of smoking cessation in preventing COVID-19 complications. Items included "Quitting smoking is effective in preventing COVID-19 (lung/brain) complications" ($M = 4.73$; $SD = 1.84$; $r = .86$).

Results
Study 1
Manipulation check

Two independent samples *t*-tests were conducted to examine if the two message frames were manipulated appropriately without confounding other message features such as message quality. The familiar message frame was judged to be more familiar ($M = 5.77$, $SD = 1.15$) than the unfamiliar one ($M = 5.44$, $SD = 1.43$), $t(410) = 2.52$, $p = .01$, Cohen's $d = 0.25$. The two message frames were judged to be of similar quality, $t(410) = -1.59$, $p = .14$. Thus, message manipulation was successful.

Hypotheses testing

H1 predicted that an unfamiliar message will be processed more systematically than a familiar one. To test H1, a two-way analysis of variance (ANOVA) with message familiarity condition (familiar vs. unfamiliar) and audience favorability (conservative vs. liberal) as factors predicting message elaboration was conducted. The results showed that message familiarity did not influence the levels of elaboration, $F(1, 408) = 0.003$, $p = .95$. Thus, H1 was not supported.

To test H2–H5, a series of planned contrast analyses comparing the mean score of the dependent variable for the condition group of interest (e.g., favorable audiences reading unfamiliar message in case of H2) and the other three groups combined was conducted.[6] H2 predicted that interest in the message will be most salient in favorable individuals who processed an unfamiliar message. A planned contrast testing H2 revealed that the level of interest evoked in favorable audiences by unfamiliar message did not differ from those reported in other condition groups, $t(408) = 0.84$, $p = .40$. Thus, H2 was not supported. H3 predicted that counterarguing will be most pronounced when unfavorable individuals process an unfamiliar message. As predicted, unfavorable individuals exposed to unfamiliar message counterargued more ($M = 3.45$, $SD = 2.08$) than others ($M = 2.79$, $SD = 1.79$) in a planned contrast, $t(408) = 3.16$, $p = .002$. Thus, H3 was supported.

H4 predicted that processing fluency will dominate when favorable individuals read a familiar message. A planned contrast testing H4 showed that favorable individuals exposed to a familiar message ($M = 6.33$, $SD = 0.87$) reported higher processing fluency than others ($M = 6.19$, $SD = 1.05$) but this difference was not significant, $t(408) = 1.21$, $p = .23$. Thus, H4 was not supported. H5 predicted that message fatigue will be most pronounced in unfavorable individuals exposed to familiar messages. Indeed, a planned contrast showed that unfavorable individuals exposed to familiar message ($M = 4.72$, $SD = 1.35$) reported greater message fatigue than the rest ($M = 4.08$, $SD = 1.49$), $t(408) = 3.98$, $p < .001$. Thus, H5 was supported.

RQ1, which concerned the mediating roles of the four mechanisms, was addressed in a path model using *Mplus* version 7.0. In the initial model, audience favorability, message familiarity, and the interaction between the two variables were specified as exogenous variables predicting the four mechanism variables. The four mechanisms were, in turn, specified as predictors of a persuasive outcome (i.e., support for social distancing policy). As the mediators are likely to correlate with each other (see Dillard, 2020; So et al., 2017), covariances between each pair of the four mediating variables were added. In the initial model, the interaction term did not show any significant paths, so it was removed from the final model. The final model testing the mediating roles of the four mechanisms showed a good fit to data (see Figure 1): $\chi^2(2) = 7.88$, $p = .02$, CFI = .99, RMSEA = .08 (.03–.15), SRMR = .02.

As expected, greater audience favorability predicted lower levels of both message fatigue ($\beta = -0.28$, $p < .001$) and
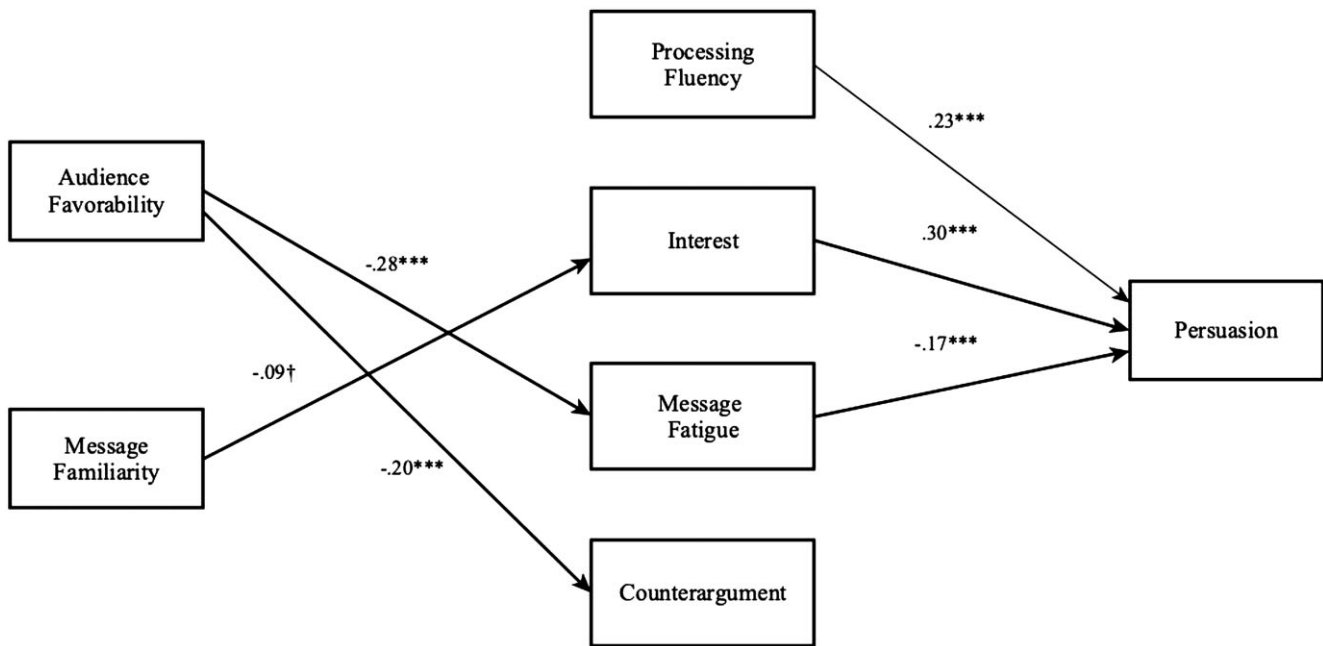
Figure 1. Path model simultaneously testing the mediational roles of the four mechanisms (Study 1).

Notes: Paths found in both Studies 1 and 2 are bolded. Standardized coefficients are reported. $^{\dagger}p = .08$, $^*p \leq .05$, $^{**}p \leq .01$, $^{***}p \leq .001$.

counterarguing ($\beta = -0.20$, $p < .001$). However, message fatigue was the only significant negative predictor of persuasion ($\beta = -0.17$, $p < .01$) and counterarguing failed to show a significant association with persuasion ($p = .66$). Thus, message fatigue was the only significant mediator of the positive effects of audience favorability on persuasion (indirect ES = 0.05, $p = .02$). Message familiarity had a marginally significant negative path to interest ($\beta = -0.09$, $p = .08$), which, in turn, predicted greater persuasion outcome ($\beta = 0.30$, $p < .001$). This rendered the overall indirect effects of message familiarity via reduced interest nonsignificant ($p = .09$). Neither of the exogenous variables predicted processing fluency, showing no input of processing fluency in this dynamic. However, processing fluency had a positive path to persuasion ($\beta = 0.23$, $p < .001$), presenting itself as a meaningful contributor of persuasion.

Study 2
Manipulation check
A series of independent samples *t*-tests were conducted to examine if the two message frames were manipulated appropriately without confounding other message features such as message credibility or quality. The familiar message was judged to be more familiar ($M = 4.01$, $SD = 1.97$) than the unfamiliar one ($M = 2.91$, $SD = 1.86$), $t(298) = -4.99$, $p < .001$, Cohen's $d = 0.58$. The two messages were deemed equally credible, $t(298) = -1.43$, $p = .15$, and of similar quality, $t(298) = -1.42$, $p = .16$. Thus, message familiarity manipulation was successful.

Hypotheses testing
H1 predicted that an unfamiliar message will be processed more systematically than a familiar one. Analytical procedures akin to the ones conducted in Study 1 were performed, where message familiarity condition (familiar vs. unfamiliar) and audience favorability (precontemplation stage vs. contemplation stage and up) were specified as factors predicting

message elaboration. Although marginally significant, the unfamiliar message was processed with higher levels of cognitive elaboration ($M = 5.28$, $SD = 1.12$) than the familiar one ($M = 5.03$, $SD = 1.30$), $F(1, 296) = 3.37$, $p = .06$, $\eta_p^2 = .01$. Thus, H1 was marginally supported. Moreover, the main effects of audience favorability on cognitive elaboration were observed, $F(1, 296) = 8.31$, $p = .004$, $\eta_p^2 = .03$, with unfavorable individuals showing lower levels of elaboration ($M = 4.89$, $SD = 1.35$) than favorable ones ($M = 5.31$, $SD = 1.12$).

H2 predicted that interest would be evoked the most in favorable individuals who are exposed to an unfamiliar message. The same ANOVA procedure with interest as a dependent variable showed main effects of both message familiarity and audience favorability: Unfamiliar message solicited greater interest ($M = 4.99$, $SD = 1.62$) than the familiar one ($M = 4.41$, $SD = 1.76$), $F(1, 296) = 8.10$, $p = .005$, $\eta_p^2 = .03$, and favorable individuals showed more interest ($M = 4.93$, $SD = 1.57$) than unfavorable ones ($M = 4.26$, $SD = 1.88$), $F(1, 296) = 11.66$, $p = .001$, $\eta_p^2 = .04$. A planned contrast testing H2 showed that favorable individuals exposed to unfamiliar message ($M = 5.27$, $SD = 1.55$) expressed significantly higher levels of interest than the rest ($M = 4.43$, $SD = 1.73$), $t(296) = 4.17$, $p < .001$. Thus, H2 was supported.

H3 predicted that counterarguing will be most pronounced when unfavorable individuals are exposed to an unfamiliar message. An identical procedure with counterarguing as a dependent variable showed main effects of both message familiarity and audience favorability on counterarguing: Unfamiliar message induced more counterarguing ($M = 2.83$, $SD = 1.69$) than familiar message ($M = 2.38$, $SD = 1.58$), $F(1, 296) = 5.01$, $p = .03$, $\eta_p^2 = .02$, and unfavorable individuals ($M = 3.03$, $SD = 1.86$) counterargued more than favorable ones ($M = 2.34$, $SD = 1.46$), $F(1, 296) = 12.64$, $p < .001$, $\eta_p^2 = .04$. These two main effects added together resulted in unfavorable individuals who read an unfamiliar message
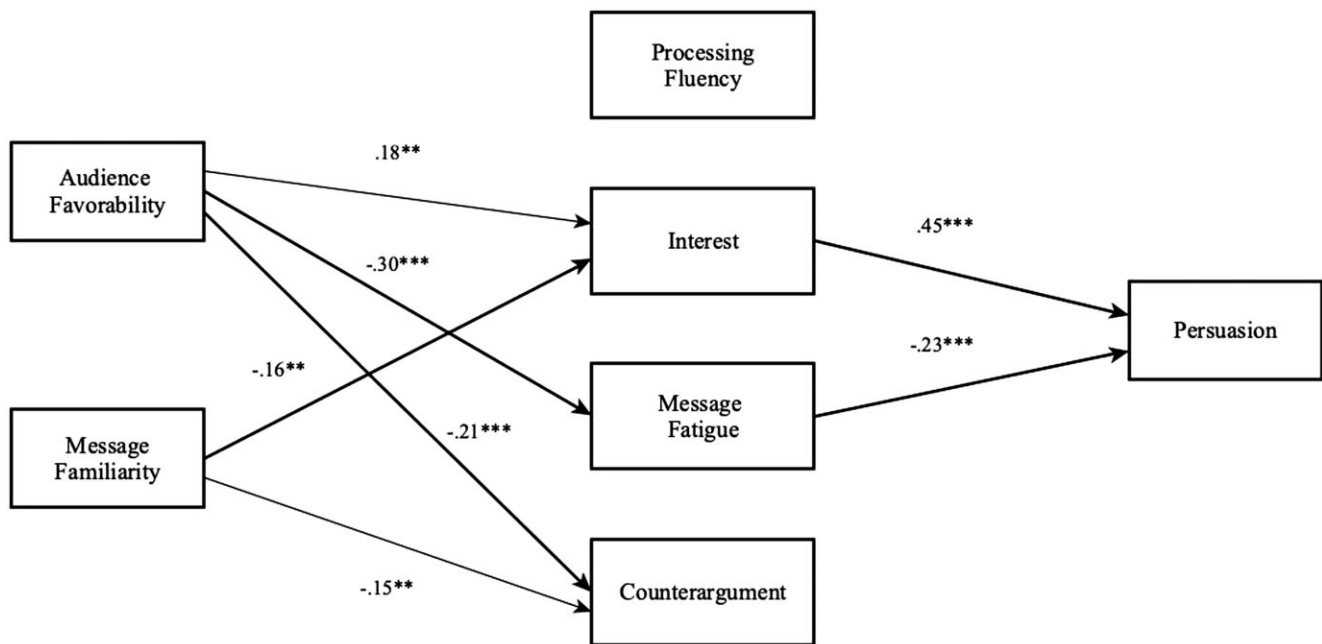
Figure 2. Path model simultaneously testing the mediational roles of the four mechanisms (Study 2).

Notes: Paths found in both Studies 1 and 2 are bolded. Standardized coefficients are reported. *$p \le .05$, **$p \le .01$, ***$p \le .001$.

expressing higher levels of counterarguing ($M = 3.22$, $SD = 1.69$) than others ($M = 2.46$, $SD = 1.61$) in a planned contrast, $t(296) = 2.89$, $p = .004$. Thus, H3 was supported.

H4 predicted that processing fluency will be heightened when favorable individuals read a familiar message. The same procedure with processing fluency as a dependent variable did not show any significant effects of audience favorability ($p = .22$) or message familiarity ($p = .43$). A planned contrast showed no significant difference between favorable individuals seeing familiar message and others, $t(296) = -0.36$, $p = .72$. Thus, H4 was not supported.

H5 predicted that unfavorable individuals who are exposed to a familiar message frame will experience greater message fatigue than others. The same procedure with message fatigue as a dependent variable showed a main effect of audience favorability, such that unfavorable individuals ($M = 4.92$, $SD = 1.60$) expressed greater message fatigue than favorable ones ($M = 3.86$, $SD = 1.66$), $F(1, 296) = 28.49$, $p < .001$, $\eta_p^2 = .09$. No effects of message familiarity was observed, $F(1, 296) = 0.14$, $p = .71$. A planned contrast testing H5 showed that unfavorable individuals exposed to a familiar message ($M = 5.02$, $SD = 1.67$) reported greater message fatigue than the rest ($M = 4.07$, $SD = 1.68$), $t(296) = 3.40$, $p = .001$. Thus, H5 was supported (see Table A5 in the Supplementary Appendix for the summary of the results of planned contrasts).

The same mediational model was specified again in Study 2 to address RQ1. As in Study 1, the interaction term between message familiarity and audience favorability did not have any significant paths and was removed from the final model. The final model testing the mediating roles of the four mechanisms showed a good fit to data (see Figure 2): $\chi^2(2) = 6.31$, $p < .05$, CFI = .99, RMSEA = .09 (.01–.16), SRMR = .02. Regarding RQ1, greater audience favorability predicted lower levels of both message fatigue ($\beta = -0.30$, $p < .001$) and counterarguing ($\beta = -0.21$, $p = .001$), while predicting greater levels of interest ($\beta = 0.18$, $p = .002$). However, as in Study 1, only message fatigue was a significant negative predictor of persuasion ($\beta = -0.23$, $p < .001$) and counterarguing failed to show a significant path to persuasion ($p = .40$). Another consistent finding with Study 1 was observed in the positive path from interest to persuasion ($\beta = .45$, $p < .001$). Reflecting these paths from audience favorability, message fatigue (indirect ES = .07. $p < .01$) and interest (indirect ES = .08. $p < .01$) were significant mediators of the positive effects of audience favorability on persuasion. However, the two mediational mechanisms exhibited distinct patterns of effects as favorability decreased message fatigue but increased interest.

Message familiarity also predicted dampened interest ($\beta = -.16$ $p = .003$), which, in turn, predicted more positive persuasion outcome as in Study 1. These two paths involving interest resulted in a significant negative indirect effects of message familiarity on persuasion (indirect ES = $-.07$. $p < .01$). Message familiarity predicted lower counterarguing ($\beta = -0.15$, $p = .01$) but since counterarguing was not significantly associated with persuasion outcome, it was not a significant mediator. Again in Study 2, neither of the exogenous variables predicted processing fluency, demonstrating its negligible role in this dynamic.

Discussion

In a message-saturated society, it is more the rule than the exception to be exposed to similar persuasive communication repeatedly (Koch, 2017), rendering the notion of message familiarity a crucial element in understanding message processing and effects. Despite its relevance, message effects research has not adequately addressed the role message familiarity plays in guiding message processing and resultant persuasive outcomes (Koch, 2017; So et al., 2017). Some available research pointed to several mechanisms involved in processing of (un)familiar messages—processing fluency, message

fatigue, interest, and counterarguing—but they have not been integrated effectively despite the considerable likelihood of them co-occurring and jointly influencing persuasion outcomes (Dillard, 2020; Koch & Zerback, 2013). Integrating HSM into this context, this research shed light on the operation of these mechanisms by identifying conditions under which each of these mechanisms would be most salient and examining the roles they play when taken into consideration together.

Based on the sufficiency principle in HSM, more familiar messages were expected to be processed less systematically (H1). The results were not consistent across the two studies. Message familiarity resulted in no difference in message elaboration in Study 1 but showed the expected effects in Study 2, albeit being marginally significant. In addition, significant main effects of audience favorability on elaboration were observed in Study 2, such that unfavorable individuals reported significantly lower levels of message elaboration. Due to the null findings in Study 1, we cannot draw a generalizable conclusion based on these findings. However, Study 2 findings offer a few noteworthy take-away points that may inform future research.

First, given the null findings in Study 1, there may be a threshold associated with the (familiarity) induction effect size that can produce discernable differences in processing depth. While message familiarity was successfully manipulated in both studies, the effect size observed in Study 1 was substantially smaller than that in Study 2, explaining relatively smaller variance in perceived familiarity (1.51% vs. 7.84%).[7] Thus, we speculate that the difference in the degree of perceived message familiarity between the two experimental conditions in Study 1 may not have reached a critical threshold that stimulates significant differences in the motivations for effortful processing. Second, audience favorability showed a strong influence on systematic processing in Study 2. It was not expected given the multiple-motive principle in HSM, which predicts dominance of (biased) systematic processing fueled by defense motivation for unfavorably disposed processors. This finding suggests that, while unfavorable audiences with heightened defense motivation may engage in systematic processing, the elaboration taking place as a response may not be as intense as the one induced by accuracy motivation.

Drawing upon the tenets of HSM's multiple-motive principle, each of the four conditions defined by varying the levels of message familiarity and audience favorability was expected to make one of the four mechanisms most salient in message processing (see Table 1). A clear and consistent pattern of findings concerning negative mechanisms expected among unfavorable individuals—message fatigue in processing of familiar message (H5) and counterarguing in processing of unfamiliar message (H3)—was observed in both studies (see Table A5 for a summary in the Supplementary Appendix). In contrast, positive mechanisms expected to be dominant in favorable individuals did not receive strong support: Interest was heightened as expected in favorable individuals when processing unfamiliar message (H2) but only observed in Study 2. Processing fluency was not salient in the expected condition (H4) in either study.

The lack of substantial role of processing fluency was also evident in the path models addressing mediational roles of these mechanisms (RQ1). Processing fluency was expected to explain the positive influence of message familiarity, but no

significant mediational path was observed between the two variables in either study. Significant correlations among these variables (see Table A1 in the Supplementary Appendix) suggest that the null finding is likely due to processing fluency being unable to provide variance in persuasion beyond the other three mediators. In fact, no positive influence (via processing fluency or otherwise) of message familiarity was observed across the two studies. Instead, only the negative influence of message familiarity on persuasive outcomes via dampened interest was observed. Taken together, message familiarity did not produce any positive influence on persuasion and only negative influence was observed, which was mediated by lowered interest.

Another strong and consistent mediator was message fatigue. In both studies, message fatigue significantly mediated the positive influence of audience favorability on persuasion: Audience favorability was associated with lower message fatigue, which was a negative predictor of persuasion. Audience favorability negatively predicted counterarguing as well, but counterarguing did not significantly influence persuasive outcome, failing to function as a mediator in both studies. It is interesting (and somewhat unexpected) that message fatigue contributed to explaining the effects of audience favorability on persuasion but not those of message familiarity in both studies. These sets of findings suggest that message fatigue may be much more motivation-based than was originally conceptualized. The primary antecedent to message fatigue has been commonly understood as overexposure to similar messages (So et al., 2017), which inevitably accompanies increased message familiarity. However, these findings show that message fatigue may be more complex than a simple, linear function of familiarity caused by accumulated exposure and may be prone to motivational considerations (e.g., defense motive).

Audience favorability also exerted its positive influence on persuasion via heightened interest as well in Study 2. In other words, two mechanisms involving decreased message fatigue and increased interest jointly produced positive effects of audience favorability on persuasion outcome. We refrain from drawing a firm conclusion from this finding as it was only observed in Study 2. However, it offers tentative empirical evidence showing that these mechanisms may operate simultaneously to jointly influence persuasion.

There are several noteworthy points to draw from the results of the mediational analyses. Message fatigue and interest emerged as two dominant mechanisms that explained the effects of message familiarity and audience favorability. While (lowered) message fatigue explained the positive effects of audience favorability, (lowered) interest explained the negative influence of message familiarity on persuasion. Differently put, no evidence for positive influence of message familiarity was found across the two studies. This finding is not reconcilable with existing research on positive effects of familiarity, particularly the ones concerning the mediating roles of processing fluency (e.g., Dechêne et al., 2010). There may be both methodological and conceptual reasons for this finding. Methodologically, this research employed a message frame that participants were expected to be familiar with given the accumulation of related similar messages in their everyday message environment. While this methodological choice increased ecological validity of the manipulation as it involved familiarity cultivated in a natural message environment, it is inconsistent with most of the extant research on message

familiarity, which typically involved induction of familiarity via repeated messaging in labs. While we don't see a conceptual reason why such methodological difference would change the role of processing fluency, we believe it is a difference worth contemplating.

On a conceptual level, it is also possible that processing fluency exerts positive influence via misattribution of pleasant subjective experience of ease only in noninvolving, nonpersuasion context. A vast majority of empirical work on processing fluency concerns noninvolving stimuli such as names of food additives (Song & Schwarz, 2009) that do not convey persuasive intent. However, in this study, both messages were overtly persuasive and concerned the participants directly, which likely resulted in considerable levels of involvement. Thus, the difference in the message context in terms of persuasive intent and personal involvement may have minimized the positive influence of message familiarity through processing fluency.

Overall, Study 2 generally showed more significant findings than Study 1, which warrants a discussion on the possible difference between the two study contexts that may have led to these diverging results. First, although COVID-19 was relevant to all, the fact that it was literally affecting everyone as opposed to select a few who engage in risk-inducing behaviors (e.g., smoking) may have made personal relevance of the topic more salient in Study 2. As per the sufficiency principle, this would have motivated stronger need for (unbiased or biased) systematic processing, thereby augmenting the effects examined. Second, audience favorability was operationalized as context-specific variables—political orientation and stages of change in Studies 1 and 2, respectively. While both variables are expected to function reliably as indicators of audience favorability in the respective context, the two variables are different in that political orientation is understood and measured as a continuous variable, while stages of change tap on to qualitatively different stages (Prochaska & DiClemente, 1983). This may have implications on the tests of the theoretical framework (see Table 1), which dichotomizes audience favorability in terms of favorable versus unfavorable audiences. This led us to dichotomize political orientation with a median split, while people in precontemplation stage were operationalized as unfavorable group and others in the more advanced stages as favorable one. As precontemplation stage "usually emerges as a distinct factor" with significantly lower motivation to change (Littell & Girvin, 2002) relative to other four stages that often appear to be combined (p. 234), this instance of operationalization may have suited the dichotomous nature of the theoretical model better. Lastly, message environment was quite different across the two studies. In Study 1, people received an intense volume of COVID-19 messages in a relatively short span of time, while smokers in Study 2 were likely exposed to antitobacco messages in a less intense way over an extended period of time. In some ways, COVID-19 message context was unusual and unnatural, as no one likely had experienced such an intense outpouring of persuasive messages on a single topic. Thus, it is plausible that theories and research that are based on more usual message environment than a global pandemic caused by a novel disease may not be completely translatable in message context employed in Study 1.

This study has several limitations. First, the dominance of systematic over heuristic processing was assessed with self-report measure of message elaboration. While Reynolds' (1997) message elaboration scale employed here is a reliable and valid measure of cognitive elaboration (see Carpenter & Boster, 2013) and yields results similar to a thought-listing method (Shen & Seung, 2018), other more objective methods of assessing cognitive elaboration and processing depth (e.g., via neuroimaging data) may have provided stronger results. Second, the message frame adopted as unfamiliar frame ("save the economy") in Study 1 may have been a type of message that liberals (i.e., favorable audiences) tend to find unappealing. This inadvertent choice of message frame may have led liberals who are generally favorable toward social distancing policies to be less enthusiastic about the message than they would have been about other unfamiliar message frames on social distancing policies. This complication possibly contributed to the observed lack of difference in interest levels between liberals and conservatives, which led H2 to be unsupported. Future research concerning political orientation and policy support should practice caution in selecting message frames.

Conclusion

Drawing from the major tenets of HSM, this research integrated disjointed literature on mechanisms involved in processing of (un)familiar messages and examined the conditions under which each of these seemingly countervailing mechanisms will prevail. Given their potential to co-occur (Dillard, 2020), their capacity as mediators when taken into consideration together was also examined. Across the two studies, evidence for negative mechanisms expected among unfavorable individuals—message fatigue and counterarguing—was consistently observed. Evidence for positive mechanisms—processing fluency and interest—was limited. When the four mechanisms were examined simultaneously in one model, message fatigue and interest emerged as significant mediators that explained the negative effects of message familiarity and positive effects of audience favorability in both studies. However, no evidence for positive influence of message familiarity was found. Taken together, this research underscores the importance of taking audience favorability into consideration when studying the effects of message familiarity.

Supplementary material

Supplementary material is available online at *Human Communication Research* online.

Data availability

Data available on request.

Funding

Conflicts of interest

The authors declare that there is no conflict of interest regarding the publication of this article.

Notes

1. Message repetition is considered a method of familiarity induction as opposed to being a theoretical variable that drives the observed effects.
2. While the HSM does not explicitly refer to audience favorability in its multimotive framework and discusses preexisting attitude toward message advocacy instead, the extant literature on audience favorability [see Allen (1991), O'Keefe (1999), and Shen & Bigsby (2013) for meta-analyses and reviews] suggests that existing attitude is one way through which audience favorability manifests and, therefore, has been one of the most common ways of operationalizing this broader concept.
3. Accuracy and defense motivations reflect absence and presence of biased processing, respectively, as a function of preexisting attitudes, which represents the broader concept of audience favorability. However, impression motivation is not relevant in this dynamic. Instead, it is focused solely on satisfying "current social goals" (Chen & Chaiken, 1999, p. 78), and therefore, has no meaningful implications on the discussion of audience favorability influencing biasedness of message processing.
4. In Study 2, we created a message focusing on brain complications to ensure significantly lower levels of message familiarity in the unfamiliar frame condition relative to the familiar condition. Since this message frame was not based on empirical scientific evidence, we made sure to communicate to the participants that message about COVID-19 brain complications was created for the purpose of experimental manipulation and was not based on scientific evidence in the debriefing document.
5. Operationalizing audience favorability in terms of context-specific variables that are well-integrated in theories and research within the relevant subdomain of communication research offers several advantages over operationalizing it as preexisting attitude. First, the use of context-specific variables facilitates integration of the findings from current study into existing research, making this research relevant to a wider range of research inquiries that may not specifically center around the concept of audience favorability. Our approach allows the findings from this research to not only speak to the role of the concept of audience favorability theoretically but also to show how these context-specific variables—political orientation and stages of change—may function as determinants of the effects of message familiarity. This way, clear theoretical and practical implications on research that involves these widely used variables can be offered. Second, this approach allows somewhat scant research on audience favorability, use of which has been mostly confined to message sidedness effects research, to expand to other subdisciplines and theories of communication (e.g., stages of change model), as a theoretical mechanism that can explain how political orientation and stages of change, for example, may influence processing of (un)familiar messages. Third, another advantage of using context-specific variables instead of preexisting attitude would be preventing a potential criticism of being somewhat tautological: The use of context-specific variables with established roles in relevant theory may be more meaningful than using a baseline level of an outcome variable (i.e., preexisting attitude) as a predictor of the effects on the outcome itself.
6. For information purposes, results of ANOVA testing main and interaction effects of the two independent variables are reported in Table A3 in the Supplementary Appendix.
7. Cohen's d of 0.25 observed in Study 1 indicates a "small" effect, while Cohen's d of 0.58 observed in Study 2 indicates a "medium" effect (Cohen, 1992).

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