

Safety listening in organizations: An integrated conceptual review

1 Theory on preventing institutional failures (e.g., accidents, scandals) has long
2 emphasized the importance of stakeholders raising concerns to address and avert harm
3 (Westrum, 2014). Accordingly, various research streams on speaking-up have emerged
4 (Jones et al., 2021), which have primarily focused on safety voice (Noort et al., 2019), but
5 also incorporated work on ethical voice (Chen & Treviño, 2023) and whistleblowing
6 (Blenkinsopp et al., 2019). The unifying theme across such research is that individuals voice
7 concerns to elicit action to address serious breakdowns in organizations and prevent harm
8 (for parsimony, and due to a common focus on avoiding harm, we refer to such phenomena
9 as ‘safety voice’ from herein).

11 While safety voice acts are necessary to stop accidents and ensure safety, they are also
12 insufficient: incident analyses often highlight how voice can go unheard before and during
13 major institutional failures (Hald et al., 2020). Indeed, as illustrated in Table 1, ineffective
14 listening is identified as a contributory factor in multiple failures, including the Tenerife air
15 disaster (583 killed; Weick, 1990), the Bhopal disaster (500,000 exposed to toxic gas; Taylor,
16 2014), and the USA Gymnastics scandal (300 sexually assaulted; Kirby, 2018). Such cases
17 illustrate that safety voice is only effective when followed by ‘safety listening.’

18 Understanding why organizations’ members fail to listen to legitimate and
19 consequential concerns before avoidable failures is acknowledged as a critical knowledge gap
20 in the organizational psychology, voice, whistleblowing, and healthcare literatures (Jones &
21 Kelly, 2014; Vandekerckhove et al., 2014). We address this in our review, and, through its
22 undertaking, develop a literature-based conceptualization of safety listening.

Background

24 Effective communication within organizations is crucial for ensuring that safety-
25 related information is shared and acted upon (Westrum, 2014), with many models and

26 theories focusing on linear message transmission from voicers to listeners. For instance, in
27 their seminal communication model, Shannon and Weaver (1949) conceptualize dyadic
28 communication in terms of voicers encoding and sending messages using specific channels
29 (e.g., verbal), which may be negatively impacted by noise (e.g., static, disruptions), and is
30 decoded by listeners. Likewise, at the organizational level, Westrum (2004)'s information
31 flow theory posits that organizations with freely flowing risk-related information across
32 levels are more effective in addressing problems than organizations characterized by
33 withholding, distorting, or siloing information.

34 Scholars have argued that such communication conceptualizations primarily focus on
35 message transmission (i.e., voice) rather than reception (i.e., listening; Macnamara, 2018;
36 Vandekerckhove et al., 2014). Accordingly, as communication is an ongoing, interactive, and
37 iterative process where individuals interpret and develop the topic being communicated,
38 scholars (e.g., Schramm, 1955) have extended the Shannon and Weaver model to include
39 feedback from receivers to senders. For example, one feedback type may be 'third turn
40 repairs' where listeners try to confirm understandings and/or correct misunderstandings
41 between interlocutors (Schegloff, 1992).

42 Like the wider communication literature, research on safety in teams and
43 organizations has primarily explored how safety-related information (e.g., about hazards) is
44 shared, rather than how it is listened to. Notably, safety research has focused on safety voice,
45 which is generally conceptualized in terms of discretionary, typically upward communication
46 where individuals raise significant concerns about potential harms to those who can intervene
47 or escalate the problem. Safety voice studies have typically examined speaking-up with
48 safety-related information (Noort et al., 2019), or incorporated related concepts like employee
49 voice (Morrison, 2014); whistleblowing (Near & Miceli, 1985); voice in action teams (Krenz
50 & Burtscher, 2021); and ethical voice (Chen & Treviño, 2022).

51 As safety voice is considered essential for ensuring information flow about hazards,
52 risks, and potential safety improvements, investigations have generally focused on speaking-
53 up's antecedents (Chamberlin et al., 2017). Common findings are that individuals often
54 engage in voice acts depending on their attitudes and skills for managing safety (Salas et al.,
55 2020) and psychological safety where they believe speaking-up will lead to change
56 (Morrison, 2014) and will not result in negative consequences (Edmondson, 2018). However,
57 while safety voice is an increasingly well understood phenomenon (Bazzoli & Curcuruto,
58 2021), the mechanism by which it prevents accidents and harms – namely, safety listening –
59 is less examined (Vandekerckhove et al., 2014). This is a significant gap: it is essential to
60 understand the factors that determine how and whether voice is heard, understood, and
61 responded to (Barlow et al., 2019) to explain how safety voice can best achieve its goal of
62 eliciting action. While research outside of safety has provided insight on how listening in
63 organizations can be encouraged (e.g., by signaling aids; Itzhakov & Kluger, 2017), little
64 research has focused on dynamic and high-stakes contexts (e.g., aviation emergencies), or
65 how safety voice invokes actions for preventing accidents and avoiding harm (e.g., raising
66 alarms, instituting changes).

67 In summary, while there has been extensive research on improving safety voice in
68 organizations, there is no established safety listening counterpart. Although the workplace
69 listening literature has focused on responses to voice acts that might be considered routine
70 (e.g., listening to performance evaluation concerns), the nature of listening to voice where
71 serious failures might be averted has not been studied. Indeed, the broader psychology
72 literature does not indicate precisely how listening to safety voice should be conceptualized:
73 for instance, researchers have diversely conceived listening as being how receivers perceive
74 voicers, observable (e.g., nodding) and unobservable (e.g., comprehension) behaviors in
75 response to voice, feelings about voice (e.g., exhaustion), intentions based on listening to

76 voice, and voicers' perception of being heard (Kluger & Izchakov, 2022; Yip & Fisher,
77 2022).

78 We conducted a conceptual review of research investigating safety listening in
79 organizations. Our goal was, through synthesizing research and observations on how safety
80 voice is listened to and leads to outcomes, to conceptualize the nature, antecedents,
81 indicators, and outcomes of safety listening. For example, in terms of describing what safety
82 listening is (e.g., behaviorally), understanding what drives it (e.g., attitudes, culture),
83 exploring how it should be measured (e.g., naturalistic data), and considering its relationship
84 with outcomes (e.g., how it prevents accidents). Guided by the idea that safety voice is a call
85 to action and a successful listening episode must result in some action (e.g., stopping take-
86 off; Noort et al., 2021a), our initial conceptualization of safety listening was: listeners'
87 behavioral responses to safety voice acts to address potential harms in organizational
88 contexts.

89 Our review's contribution is to develop foundational principles for the concept of
90 safety listening, outline how it can be advanced theoretically and empirically, and identify
91 how it can improve psychological research on topics like safety and ethics in organizations.

92 After outlining our search methods, we describe how researchers have conceptualized
93 and investigated safety listening, including its distinctions from other listening types, its
94 terms/definitions, its theoretical explanations, its measurements, and its
95 pragmatics/antecedents/outcomes. To integrate research on safety listening into the wider
96 psychology literature, we interpreted our findings using the Shannon and Weaver model,
97 third turn repairs, and Westrum's information flow theory. Through critically evaluating the
98 literature – for instance, in relation to fragmented terms/definitions, a focus on listeners'
99 motivations, and the overuse of self-report measures – we recommend avenues for future
100 investigation.

101 **Methods**

102 We undertook a robust literature search to identify safety listening conceptualizations.
103 Our conceptual review's purpose was to synthesize and reconcile fragmented terminologies,
104 definitions, and measurements of safety listening to aid conceptual demarcation and theory
105 development (Hulland, 2020). Accordingly, rather than performing an exhaustive literature
106 search, we aimed to understand how scholars have conceptualized safety listening.

107 First, we performed a systematic literature review following Siddaway et al. (2019)'s
108 recommendations. Using Scopus, Web of Science, and PsycINFO, we searched for
109 publications which included listening, concerns, failure, and organizations (or synonyms)
110 within abstracts (Web of Science and PsycINFO) and titles, abstracts, or keywords (Scopus;
111 Table 2 for search strategy). We verified our search strategy by ensuring that it included five
112 articles central to our research (i.e., Hald et al., 2020; Harlos, 2001; Jones & Kelly, 2014;
113 Martin et al., 2021; Peirce et al., 1998). As listening is implicit to many literatures (e.g.,
114 teamwork, psychological safety), we included publications that explicitly theorized or
115 investigated responses to high consequence concerns (Table 3 for inclusion criteria).
116 Alongside focusing on safety voice studies, we considered other potentially relevant research:
117 for example, investigations on voice more generally, whistleblowing, speaking-up about
118 problems in healthcare or dangerous workplace behavior (e.g., sexual harassment), and
119 unethical conduct. AMP (research psychologist) conducted searches, removed duplicates, and
120 screened results based on titles, abstracts, and full texts in March 2022 (Figure 1 for
121 flowchart diagram). We conducted an interrater reliability assessment where a psychology
122 PhD candidate screened 30 randomly selected publications, resulting in a Cohen's kappa of
123 0.86 (substantial strength of agreement). All authors regularly and collectively discussed
124 borderline case inclusion and interpreted findings.

125 Next, we conducted two manual searches in March-June 2022 and June-July 2023
126 because our initial search strategy excluded relevant papers due to terminology variations
127 (e.g., ‘cockpit crew’ instead of ‘team’). First, we examined publications citing and cited by
128 those included in our systematic review and hand search. Second, we searched journals likely
129 to contain relevant publications (e.g., *International Journal of Listening*). Last, we
130 investigated key authors’ Google Scholar pages and reviews in the following domains for
131 safety listening research: safety voice (Noort et al., 2019), employee voice (Lainidi et al.,
132 2023; Morrison, 2011, 2014), voice in action teams (Krenz & Burtscher, 2021),
133 whistleblowing (Blenkinsopp et al., 2019; Mesmer-Magnus & Viswesvaran, 2005), ethical
134 voice (Chen & Treviño, 2023), workplace listening (Kluger & Izchakov, 2022; Yip & Fisher,
135 2022), safety culture (Bisbey et al., 2021), teamwork (Salas et al., 2020), and ethical
136 leadership (Brown & Treviño, 2006). We recognize that publications post-July 2023 were not
137 included, and others may have been missed despite our multiple search strategies.

138 Our review is contextualized against recent workplace listening reviews (Kluger et al.,
139 2023; Kluger & Izchakov, 2022; Yip & Fisher, 2022) – it is narrower in topic (i.e., safety
140 listening) yet broader in scope because these reviews focused on the management,
141 communication studies, and psychology literatures. AMP and a psychology MSc
142 postgraduate research assistant assessed listening-related terminologies and definitions;
143 explanations (i.e., theories, models, processes); methods and data sources; and pragmatics,
144 antecedents, and outcomes for each publication.

145 **Findings**

146 We identified 57 articles, published between 1982 and 2023, focusing on listening to
147 high consequence concerns in organizational contexts. Of these, 43 were empirical
148 (comprising 46 studies), 11 were theoretical, and three were reviews. Table 4 synthesizes our
149 findings into a set of key observations, critiques, and recommendations.

150 *Safety listening conceptualizations*

151 Safety listening's distinguishability

152 In developing the concept of safety listening, our first goal was to distinguish it from
153 other listening forms (e.g., active listening). It is distinguishable in four ways. First, it can
154 result in significant and sometimes life-or-death outcomes (Hällgren et al., 2018), including
155 physical (e.g., fatalities), psychological (e.g., trauma), and environmental (e.g., pollution)
156 harms.

157 Second, safety listening has been studied in risky (e.g., aviation; Noort et al., 2021a)
158 and emergency (e.g., healthcare; Long et al., 2020) contexts, though it may also occur in
159 disrupted contexts (e.g., bomb in subway stations; Hällgren et al., 2018). Such contexts
160 include formalized organizational settings with distinct role definitions and imbalances in
161 roles, responsibilities, and expertise between voicers and listeners (e.g., nurses voicing to
162 doctors; McDonald & Ahern, 2000), and dynamic environments where events cannot be fully
163 rehearsed (e.g., security).

164 Third, listeners often make decisions amidst high cognitive loads, stress, urgency, and
165 danger (e.g., military). Listeners face a dilemma: acting on voice (e.g., cancelling take-off
166 following technical concerns) could lead to proximal consequences (e.g., disruption) yet
167 potentially prevent future incidents while inaction may create distal risk (e.g., accidents).
168 Likewise, erroneous actions may be challenging to reverse (e.g., shutting down the wrong
169 engine; Krenz & Burtscher, 2021). Thus, listeners must engage with concerns, compare risks
170 tied to different actions, and determine appropriate actions in uncertain conditions.

171 Last, safety listening is verifiable. As safety voice requests novel or corrective action
172 by listeners (e.g., stopping harassment; Peirce et al., 1998), safety listening is observable in
173 listeners' responses (e.g., creating plans; Groves et al., 2021), team-members' shared
174 understandings of the situation, and situations' outcomes (e.g., de-activated bomb following

175 citizens' concerns). Table 5 outlines safety listening's defining features, including its content,
176 observability, and context.

177 Safety listening's fragmentation

178 To test the idea that safety listening is a concept that is implicitly recognized as
179 important within the literature but has not been crystalized into a defined term or
180 phenomenon, we examined how listening was defined across the included studies.
181 Publications used 36 unique terms/definitions for listening, with many seeming overlapping
182 or with unclear delineations. For example, scholars used 'retaliation' (Rehg et al., 2008),
183 'whistleblower retaliation' (Kenny et al., 2019), and 'official' and 'unofficial reprisals'
184 (McDonald & Ahern, 2000) to describe negative consequences following voicing. Similarly,
185 Jones and Kelly (2014) renamed the 'deaf effect' (Cuellar et al., 2006) as 'organizational
186 disregard' while retaining the same definition.

187 While some terminologies conveyed neutral or positive connotations (e.g., 'reaction
188 to speaking up'; Lemke et al., 2021), most illustrated consequences following voice (e.g.,
189 'retaliation'; Rehg et al., 2008) or exclusively negative responses (e.g., 'silencing'; Tiitinen,
190 2020). Moreover, some terms were framed at the dyadic level (e.g., 'receiver response'; Long
191 et al., 2020) while others pertained to organizational dynamics (e.g., 'organizational
192 silencing'; Fernando & Prasad, 2019).

193 Safety listening's motivational framing

194 We next investigated how the literature has explained safety listening, finding that
195 terminologies and definitions generally frame it as motivational. Terms like 'willful
196 blindness' (Cleary & Duke, 2019) and 'deaf ear syndrome' (Peirce et al., 1998) insinuate that
197 inaction is intentional; listeners choose to turn blind eyes or deaf ears following concerns.
198 Likewise, publications' definitions primarily focused on listeners' (in)actions following
199 voice, including addressing concerns (Tucker & Turner, 2015), ignoring complaints (Cleary

200 & Duke, 2019), and retaliating (Rehg et al., 2008). Most definitions implied actions were
201 deliberate (e.g., listeners' "willingness to refrain from [...] retaliation"; Vandekerckhove et
202 al., 2014, p.300) to pursue objectives (e.g., preventing further whistleblowing; Tiitinen,
203 2020). Such intentionality seems consistent with the behavioral literature (Skinner, 1963)
204 where listeners' actions (e.g., punishment) may serve to extinguish future voice behaviors.

205 Safety listening explanations generally posit that listeners intentionally choose
206 responses based on their attitudes, strategy, or motives. Following voice, listeners are thought
207 to determine responses after rationally assessing whether problems exist, whether they are
208 responsible for them, and whether they can address them (Pierce et al., 2004). Applying the
209 theory of planned behavior, Vandekerckhove et al. (2014) posit that listeners are likelier to
210 retaliate if they possess negative whistleblowing attitudes, improvable subjective norms (e.g.,
211 witnessing others retaliate), and poor perceived behavioral control (e.g., believing they
212 cannot help). Similarly, Near and Miceli (1985) argue that, following whistleblowing,
213 organizations determine whether the misconduct should cease and/or the whistleblower
214 should be punished; choosing retaliation is seen as proportionate to the organization's
215 dependence on the wrongdoing and inversely related to the whistle-blower's power (Miceli et
216 al., 2008).

217 Research often frames poor listening as intentional. Ineffective responses are viewed
218 as intended to silence or discredit voicers (Fernando & Prasad, 2019), highlight voicers' out-
219 group membership (Barlow, 2021), rid listeners' negative emotions (Sumanth et al., 2011)
220 and cognitive dissonance (Atkinson et al., 2022), prompt voicer conformity (Wellman et al.,
221 2016), and minimize reputation loss (Near & Jensen, 1983). Moreover, Martin and Rifkin
222 (2004) and Roulet and Pichler (2020) conceptualize whistleblowing responses as strategic
223 maneuvers within games ('organizational jiu-jitsu' and 'blame games', respectively),
224 designed to minimize personal and organizational culpability. However, explaining listening

225 as motivational and strategic may overlook alternative explanations, including
226 misunderstandings (Schegloff, 1992).

227 *Safety listening methodologies*

228 Having established how safety listening tends to be conceptualized and understood in
229 organizational contexts, we investigated how it is studied, with, given voice's aim of
230 soliciting action, a particular interest on whether and how it is studied behaviorally. Like
231 safety voice (Noort et al., 2019), the 46 empirical safety listening studies occurred most
232 frequently in healthcare contexts (n = 14) and in America (n = 19).

233 Considering that safety listening, ultimately, is about responding to voice acts aiming
234 to elicit action, only two directly measured safety listening behaviors in naturalistic contexts.
235 Lemke et al. (2021) observed voice and listening in teams administering pre-surgery
236 anesthesia. They created behavioral codes assessing listeners' verbal, behavioral, and
237 affective responses, and coded behaviors *in situ*. Noort et al. (2021a) analyzed behavioral
238 trace data from conversations preceding airplane crashes between 1962-2018. They identified
239 safety listening in the three conversational turns following safety voice, classifying it as
240 immediate action, verbal affirmation, ignoring, or disaffirmation. The remaining studies used
241 self-reported measures (e.g., surveys) or measured behavior in contrived settings (e.g.,
242 experiments); Table 6 details these methodologies. Notably, almost half of the studies (20/46)
243 did not specify whether complaints were spoken or written, and few explicitly investigated
244 technology-mediated complaints (e.g., phone calls, emails).

245 In sum, like voice (Lainidi et al., 2023) and other listening types (Kluger et al., 2023),
246 safety listening insights were primarily obtained through measurements assessing self-
247 reported imagined or recalled responses to high consequence concerns. Despite variously
248 operationalizing safety listening, researchers have generally positioned 'better' listening as
249 agreeing with voicers, making voicers feel heard, and addressing problems (Barlow, Watson,

250 et al., 2023; Noort et al., 2021a; Reader, 2022). Studies typically framed voice and listening
251 as one-shot, studying instances where voicers knew how to effectively raise concerns and
252 listeners could address them. Scenarios where voicers were uncertain how to complain and
253 where listeners could not act (e.g., about a third party's error) were rarely examined.

254 *Safety listening findings*

255 To establish the existing corpus of safety listening knowledge and identify potential
256 areas for future investigation, we explored observations on the following: i) safety listening's
257 pragmatics and how it manifests in organizations, ii) safety listening's antecedents (e.g.,
258 preventative and promotive factors), and iii) safety listening's outcomes. When evaluating
259 publications' findings, we considered communication repairs and organizational information
260 flow.

261 Safety listening pragmatics

262 Three studies explored how listeners responded to voice, typically conceptualizing
263 effective listening as agreement. Self-reported (i.e., interviews) and observed (i.e., simulated
264 behavior) 'appropriate' listening included acknowledgement, thanking voicers for speaking-
265 up, and validating emotions (Barlow, Watson, et al., 2023; Groves et al., 2021). Conversely,
266 responses using task-based questioning (e.g., 'What actions are necessary to discharge this
267 patient?') hindered listening because listeners did not address voicers' concerns. In contrast,
268 Lemke et al. (2021) observed that responses were often neutral or validating, primarily
269 comprised of short approvals or detailed explanations. While Groves et al. (2021)
270 conceptualized voice and listening as one-shot (i.e., voice, then listening, then outcome),
271 Barlow et al. (2023) and Lemke et al. (2021) (assessing naturalistic or simulated behavior)
272 described listening as iterative; it furthered the conversation by prompting sensemaking or
273 inviting future voice acts. Notably, all studies were in healthcare contexts; it may be that
274 listening pragmatics differ in other situations.

275 Safety listening antecedents

276 Publications measured antecedents at three levels: listeners' cognitive/skill-based
277 factors, interactional dynamics among voicers and listeners, and structural factors within
278 organizations. These studies quantitatively investigated listening's antecedents and outcomes
279 or have qualitatively described antecedents and outcomes using institutional failure
280 examinations and voicer/listener interviews.

281 *Cognitive/skill-based factors*

282 Publications explored listeners' motivations as a listening antecedent. Ineffective
283 listening was preceded by listeners' poor motivated reasoning (Cleary & Duke, 2019),
284 negative attitudes toward complaints (Hsieh et al., 2005), and expectations that voicers would
285 address problems themselves (Wilkinson et al., 2015). Additionally, inadequate listening
286 (e.g., retaliation) was likelier when listeners perceived voicers as threatening (Kenny, 2019),
287 cold, or unlikeable (Wellman et al., 2016). Receivers also were unlikely to listen if they were
288 stressed (Long et al., 2020) or feared disciplinary actions (Martin et al., 2021).

289 Complaints' perceived legitimacy also influences safety listening. Effective listening
290 is encouraged when listeners receive compelling evidence (Mesmer-Magnus & Viswesvaran,
291 2005) and believe voicers were not responsible for incidents (Pierce et al., 2004). Yet,
292 listening may be hindered if listeners excessively confirm complaints' legitimacy instead of
293 focusing on comprehending and resolving issues (van Dael et al., 2022).

294 Inadequate listening skills may underpin ineffective listening. Some listeners
295 indicated not knowing how to respond to voice (Barlow, Morse, et al., 2023) and having
296 insufficient training to do so (Hsieh et al., 2005). Conversely, trained managers with
297 experience with whistleblowers were likelier to safeguard them from retaliation
298 (Vandekerckhove et al., 2014). A listening skill which would benefit from more investigation
299 would be identifying and correcting misunderstandings (e.g., the voicer incorrectly perceived

300 a problem when one did not actually exist) – but this would require looking beyond one-shot
301 voice acts.

302 *Interactional factors*

303 Interactional dynamics may shape listeners' cognitions and responses, with research
304 focusing on voicer/listener power and team members' support. Listening is likelier when
305 there are low voicer/listener power disparities (Miceli et al., 2008) – for example, if voicers
306 had high-status positions (Cortina & Magley, 2003), their roles included whistleblowing (e.g.,
307 auditing; Casal & Zalkind, 1995), and listeners respected voicers' seniority (Long et al.,
308 2020). Conversely, ineffective listening was often preceded by hierarchical and expertise
309 differences (e.g., junior pilots voicing to captains; Noort et al., 2021a). In short, listeners may
310 have preconceptions as to who might have relevant safety information, which reduces their
311 openness to voices from unexpected sources.

312 Third-party support may discourage retaliation. Voicers were unlikely to experience
313 retaliation if colleagues understood why they voiced (Park et al., 2020), and voicers had
314 supervisor (Mesmer-Magnus & Viswesvaran, 2005) and/or top management support (Miceli
315 et al., 1999).

316 *Structural factors*

317 Interactional factors are influenced by structural factors, including reporting channels,
318 organizational cultures, and organizational characteristics. Scholars distinguish between
319 different reporting channels: external (e.g., to regulators), informal internal (e.g., open-door
320 policies), and formal internal (e.g., complaints systems). All are associated with ineffective
321 listening. Using external whistleblowing channels increased retaliation's likelihood and
322 severity (Mesmer-Magnus & Viswesvaran, 2005). Likewise, voicers using informal internal
323 reporting channels believed these inadequately addressed complaints (Harlos, 2001).
324 Ineffective formal reporting channels were poorly demarcated, bureaucratic, inadequately

325 captured complaints' nuances, and prioritized achieving performance targets (e.g., reducing
326 complaint numbers) over addressing complaints (Martin et al., 2021b; van Dael et al., 2022).
327 Studies have typically investigated 'clear-cut' speaking-up where voicers have
328 straightforward concerns, know how to navigate multiple channels, and have a single
329 intended audience.

330 Organizations with poor safety cultures (Reader, 2022), cultures prioritizing
331 performance over safety and ethics (Wilkinson et al., 2015), and cultures where complaints
332 conflict with taken-for-granted assumptions (Hald et al., 2020) are associated with ineffective
333 listening. Additionally, complaints were likelier to be disregarded in small firms, family-
334 owned enterprises, decentralized or multinational setups, male-dominated sectors, and rural
335 locations (Peirce et al., 1998). Organizations with ineffective listening often exhibited limited
336 information sharing (Hsieh et al., 2005), possessed poorly defined policies concerning
337 wrongdoings (Peirce et al., 1998), and excluded employees from problem-solving processes
338 (Tiitinen, 2020).

339 In sum, consistent with Westrum (2014), structural factors including poor reporting
340 channels and pathological or bureaucratic organizational cultures blocked information flow
341 within organizations.

342 Safety listening outcomes

343 Five studies investigated consequential outcomes following safety listening using
344 surveys, interviews, and behavioral trace data. Ineffective listening was associated with
345 increased injuries (Tucker & Turner, 2015), airplane damage (Noort et al., 2021a), and death
346 (Hald et al., 2020). Experiencing retaliation also worsened voicers' physical (Cortina &
347 Magley, 2003) and mental health (Kenny et al., 2019).

348 Voicers who experienced retaliation also reported diminished job satisfaction (Cortina
349 & Magley, 2003), supervisory relationships (Rehg et al., 2008), and career advancements

350 (McDonald & Ahern, 2000). Voicers receiving multiple retaliation forms were likelier to
351 report retaliation (Near & Miceli, 1986), and women who experienced retaliation were
352 likelier to whistle-blow externally (Rehg et al., 2008). Certain listening behaviors
353 extinguished future voice behaviors: voicers were reluctant to voice again when listeners
354 provided extensive explanations (Lemke et al., 2021) and when senior listeners disaffirmed
355 junior voicers (Noort et al., 2021a).

356 **Discussion**

357 Our review found research on safety listening to be highly fragmented in terms of
358 definitions and conceptualizations and to be overly focused on attitudes toward listening. We
359 concluded that, because safety listening influences outcomes through responding to voice
360 acts, its conceptual basis lies in consequential (and thus observable) behavior (i.e., action)
361 and its outcomes (e.g., harm avoidance), rather than listeners' or voicers' attitudes. From this
362 standpoint, safety listening can be understood as a 'world-making' behavior (Power et al.,
363 2023), because what listeners say and do after hearing safety voice – for example addressing
364 concerns, correcting misunderstandings, and starting sensemaking processes – determines
365 how and whether action is taken to prevent accidents and avoid harm.

366 Like the communication literature, for example Shannon and Weaver's one-shot
367 communication model (i.e., voice-listening-outcome), safety listening research tended to
368 consider only 'one turn' of communication, and not how individuals iterate and sense-make
369 across many turns to understand safety concerns. For example, through third turn repairs
370 which are important for correcting misunderstandings in how listeners have understood voice
371 acts (Noort et al., 2021a). Accordingly, like extensions to the Shannon and Weaver model
372 (Schramm, 1955), we suppose that safety listening should not be considered a ballistic one-
373 shot behavior, but rather part of an iterative sensemaking process, with feedback loops
374 between voice and listening.

375 Our review has implications for Westrum (2004)'s information flow theory. Like
376 Westrum, we found that structural factors (e.g., improvable organizational cultures) block
377 organizational information flow, sometimes with deleterious outcomes. Yet, Westrum
378 focused on whether information was being voiced within organizations and when considering
379 listeners' roles, primarily explored listeners' motivations upon hearing problems (e.g.,
380 preoccupation with power). As such, information flow theory can be broadened to
381 incorporate misunderstandings and miscommunications to offer a more comprehensive
382 perspective, including safety in uncertain conditions. Moreover, empirical studies should
383 apply information flow theory at the moment of voice and listening to enhance this theory's
384 applicability.

385 For the safety literature, our safety listening conceptualization is significant because it
386 explains how different forms of voice – for instance that communicating promotive (e.g.,
387 safety-related improvements) or prohibitive voice messages (e.g., safety complaints) – can
388 change the status quo, and that there are factors which underlie this (e.g., individual,
389 contextual). For prohibitive voice, listening is essential for individuals and teams to form a
390 shared situation awareness with the voicer, and thus act (or otherwise; Endsley, 1995). For
391 promotive voice, how listening shapes outcomes is less clear, is likely to occur in a less
392 urgent context, and may require more ongoing and iterative processes (e.g., on deciding
393 whether to improve a safety procedure). Following the behavioral literature, for example on
394 operant conditioning (Skinner, 1963) and melioration theory (Herrnstein & Prelec, 1991), it
395 would also be valuable to understand how safety listening influences safety voice (e.g.,
396 through encouraging or extinguishing future voice acts).

397 *Implications for workplace voice and listening literatures*

398 Beyond safety, our findings have significance for both the workplace voice and
399 listening literatures. For example, researchers often theorize listening in terms of attitudes and

400 perceptions around voice, rather than how individuals react and respond to the content or
401 intentions of a voice act. This is especially important for determining whether high-
402 consequence voice acts, like whistleblowing (e.g., rather than small talk), are listened to.

403 Similarly, the voice literature generally assumes that listening will occur following
404 speaking-up; accordingly, responses to such voice are rarely examined. Yet, voice and
405 listening are iterative and complementary speech acts. Oftentimes safety or ethical problems
406 are not resolved through single voice acts, but a series of voice acts and responses (e.g.,
407 during problem solving), with some focusing on addressing and understanding concerns (e.g.,
408 potential medical errors), and others on ensuring third-turn repair (Schegloff, 1992). As such,
409 listening may not always occur after a single voice act, but a sequence of voice acts that,
410 potentially, have inconsistent information yet demand attention (Macnamara, 2018). In such
411 exchanges, boundaries between voicers and listeners may become blurred, as listeners may
412 transition to being voicers in team sensemaking processes and while clarifying concerns.

413 Likewise, the role of who ‘voices’ and who ‘listens’ also requires consideration. For
414 example, listeners can become future voicers if they cannot address voicers’ concerns directly
415 and must voice upwards. Vandekerckhove and colleagues (2012; 2014) conceptualize the
416 process of voicing upwards as follows: if, after hearing concerns, listeners do not believe they
417 can address the problem, they can voice the concern to someone who can. Thus, listeners can
418 become future voicers, with the voice/listening sequence continuing until the problem is
419 addressed or the concern is discarded. Such systems are limited in that listeners must have the
420 courage to voice to higher ups (Vandekerckhove & Langenberg, 2012), and must accurately
421 recall and relay concerns (Tiitinen, 2020). To avoid perceptions that complaints were left
422 unheard – and to encourage future voice (King et al., 2019) – listeners should keep voicers
423 informed by communicating decisions related to concerns back to voicers, including if
424 concerns will not be addressed. Future empirical research should examine how safety voice

425 cascades upwards in organizations and how listeners can voice upwards while keeping
426 voicers abreast.

427 The voice literature should also explore how voice and listening occur in multi-
428 member teams, in organizations with multiple reporting systems, and outside of organizations
429 (e.g., to regulators). This suggestion is especially pertinent to safety research, where
430 individuals often engage in undirected voice to multi-person audiences (e.g., nurses pointing
431 out abnormal bleeding to surgery teams; Kolbe et al., 2014), and listeners may not always
432 know who is expected to respond. Poorly demarcated internal reporting systems may lead
433 voicers to mistakenly believe that they raised formal complaints despite using informal
434 channels (van Dael et al., 2022); likewise, voicers may have unclear concerns and may voice
435 to incorrect audiences. It would be helpful to understand what happens following such
436 misunderstandings and how organizations might correct this.

437 *Safety listening: Relationship with climate and culture?*

438 The safety literature conceptualizes voice as a component of both safety climate and
439 safety culture, and includes voice-related survey items in climate/culture assessments (Bisbey
440 et al., 2021). While some organizational safety climate scales include listening-related items
441 (e.g., Bahari & Clarke, 2013; Huang et al., 2013), current organizational culture
442 conceptualizations typically do not include safety listening, despite its essential role in
443 nurturing safe and ethical cultures and preventing potential scandals. Like Hald et al. (2020),
444 we propose that safety listening should be seen as a subset of organizational cultures,
445 warranting its inclusion in assessments. For instance, scholars may incorporate safety
446 listening items into pre-existing culture surveys and capture safety listening through
447 unobtrusive indicators of culture (e.g., quality of responses to whistleblowing complaints).
448 This integration would provide a more comprehensive understanding of how speaking-up and
449 listening behaviors combine to contribute to organizational cultures.

450 *New research avenues*

451 Here, we outline conceptual, theoretical, methodological, and empirical gaps, and
452 recommend avenues for future research.

453 Proposing a standard term/definition

454 The review highlights a duplication of listening terms/definitions and a predominantly
455 motivational focus, which likely impedes knowledge accumulation and theory development.
456 It remains unclear whether the 36 terms are interchangeable or represent distinct concepts –
457 for example, would improvable responses be opposite to positive or neutral ones? Research
458 streams appear to be advancing independently, potentially leaving gaps in comprehending the
459 spectrum of listening behaviors and their underlying drivers.

460 Expanding existing terms/definitions, we propose a standardized concept – safety
461 listening – defined as listeners' behavior responding to safety voice demanding action to
462 prevent harms in organizational contexts. Our definition emphasizes listeners' observable
463 responses to voice acts (e.g., engaging, ignoring) as they directly influence outcomes (e.g.,
464 hazard mitigation). We underscore that voice acts may be inaccurate (e.g., voicers may have
465 incomplete information), therefore inaction may be appropriate following erroneous
466 concerns. Crucially, effective listening is not necessarily agreeing with voicers; rather, it
467 includes actions like investigation, intervention, and inaction (e.g., for false alarms). Our
468 safety listening conceptualization encompasses both promotive and prohibitive voice
469 messages – for instance, when individuals voice about improving safety (e.g., requesting an
470 improved ventilation system), there is likely still an underlying concern (i.e., better
471 ventilation would reduce the likelihood of harm). Thus, raising safety-related suggestions and
472 concerns both include sharing observations or safety-related information to improve the
473 status quo.

474 Extending explanations beyond listeners' motivations

475 Scholars typically position safety listening as resulting from listeners' motivations.

476 This conceptualization likely influences and is influenced by challenges obtaining naturalistic
477 listening data. Difficulties with reliably capturing listening behavior likely led to using self-
478 report methodologies; these methodologies' findings are likely interpreted in terms of
479 listeners' motivations due to biases and misattributions (e.g., voicers may attribute poor
480 listening as motivational due to the self-attribution error). Moreover, conceptualizations
481 framing listening as motivational indicate the use of self-report data assuming that listening is
482 deliberate; these data then provide supporting evidence for explaining listening in terms of
483 motivations. Thus, conceptualizations of ineffective listening and reliance upon self-report
484 measures likely mutually reinforce each other and have constrained our understandings of
485 listening.

486 Research should move beyond the focus on motivation-driven conceptualizations,
487 especially since organizational disasters reveal instances where listeners were motivated to
488 listen but failed to do so (e.g., pilots are motivated to safely fly airplanes; Noort et al., 2021a).
489 Consequently, Martin et al. (2021) have questioned the prevailing notion that mishandling
490 complaints solely arises from deliberate efforts to enforce silence in organizations. We
491 concur – recognizing that while motivations undoubtedly influence listening behaviors,
492 concentrating solely on listeners' attitudes narrows our understandings and neglects
493 alternative explanations.

494 The literature would benefit from developing a conceptual model and theory which
495 explain the organizational and system dynamics through which safety voice and listening
496 impact outcomes (e.g., scandals). A plausible explanation posits that safety voice signifies
497 shared cognition discrepancies within teams, while safety listening serves to re-establish
498 shared cognition. Empirically investigating this proposition in future research may hold

499 promise and researchers should continue refining explanations for the relationships between
500 voice, listening, and outcomes.

501 Assessing safety listening behaviors

502 Most empirical studies employed self-report measures rather than assessing
503 naturalistic listening behavior. Using proxies is understandable because safety listening
504 behavior is elusive and requires infrequent complaints to occur. Moreover, truly high
505 consequence experiments and simulations are unethical as they expose participants to
506 significant risks.

507 Yet, relying on self-report, simulation, and experimental methodologies assumes that
508 findings in safe and controlled situations generalize to dynamic and dangerous environments
509 (Diener et al., 2022). In such decontextualized conditions, listening intentions or behaviors
510 may be over-reported or inaccurately described, recalled, or attributed. For instance, self-
511 report methods assume that individuals can (and would) precisely describe and attribute
512 intentions to their own and others' listening behaviors. Human errors (e.g.,
513 misunderstandings), social desirability biases (van de Mortel, 2008), attribution errors (Ross,
514 1977), and other factors (e.g., primes; Bargh & Chartrand, 2000) may influence listening
515 behaviors. Similarly, vignettes measuring listening intentions may be abstract, over-rely on
516 participants' imaginations, and may inaccurately predict listening behavior (Sheeran, 2005).
517 Moreover, simulations and experiments involving confederates require precise execution of
518 researchers' instructions to be believed by participants (Yeomans et al., 2023). Addressing
519 discrepancies between self-reported perspectives (e.g., listener says they listened; voicer
520 disagrees) poses another challenge. Such discrepancies may be frequent, as Bodie et al.
521 (2014) found no association between voicers' perceptions of receivers' listening, receivers'
522 perceptions of their listening, and behavioral listening measures. Likewise, voicers may
523 incorrectly believe that listeners can address problems; however, listeners may hear safety

524 concerns but cannot transparently show what action has been taken (e.g., addressing
525 complaints about another's errors) and cannot do more than pass the complaint onwards.

526 Although self-report measures are helpful for addressing specific research inquiries
527 (e.g., assessing employees' commitment to safety), they offer limited insights into the actual
528 behaviors and underlying mechanisms driving individuals' responses to safety voice. Self-
529 reports' limitations are heightened in this context because this measurement form is truly not
530 high consequence in nature.

531 Only two out of 46 studies assessed listening behavior. Like Baumeister et al. (2007),
532 we advocate for a more balanced approach in future research, with more behavioral measures
533 using naturalistic data. We describe methodologies to measure naturalistic safety listening
534 behaviors – including naturalistic and ecological observations and behavioral trace data – in
535 Table 7. Measuring naturalistic listening behaviors would enable us to validate assumptions
536 about this phenomenon (e.g., is effective safety listening always agreement?), uncover
537 unexpected 'real world' manifestations (e.g., listening to conflicting voice messages), and
538 causally examine safety listening's relationship with important outcomes (e.g., airplane
539 crashes). Additionally, researchers can triangulate behavioral and non-behavioral findings to
540 converge on evidence that is more compelling than generated by one method alone (Barnes et
541 al., 2018). Table 8 illustrates sample high validity behavioral trace datasets which are
542 publicly available and are unobtrusive (Hill et al., 2014). Due to its high validity, such data
543 may be distressing; scholars should consider how to safeguard participants, researchers, and
544 transcribers during data collection and analysis.

545 There is little consensus on how to code safety listening behaviors, likely due to an
546 unclear understanding of what such behaviors entail in naturalistic settings. Studies, often
547 using self-reported data, may have conflated effective listening with agreement; however,

548 effective listening may be disagreement if voicers are incorrect. To address this, researchers
549 should establish a taxonomy of safety listening behaviors which can be translated into a
550 reliable and valid coding framework. This framework should be empirically grounded and
551 incorporate observable listening behaviors (e.g., asking questions; Kluger & Izchakov, 2022)
552 and defensive tactics (Gillespie, 2020).

553 Given the considerable sample size of some of the behavioral trace datasets in Table 8
554 (i.e., thousands of instances of safety voice and safety listening), machine-learning-based
555 natural language processing models and more recently large language models may
556 revolutionize safety listening measurement. These techniques can rapidly analyze vast
557 amounts of complex textual communications, generating high-quality results approaching
558 human-level performance (Kjell et al., 2019; Luo et al., 2024; Törnberg, 2023). Accordingly,
559 these techniques could efficiently and accurately identify patterns, trends, and potential risks
560 in transcribed or written safety conversations and may detect novel nuanced insights that
561 might not be possible with manual coders (Berger & Packard, 2022; Speer et al., 2022). For
562 instance, artificial intelligence measures of safety voice and listening could code data at a
563 sufficient scale, rigor, and subtlety to begin to identify the types of voice and listening
564 behaviors which are associated with aviation accidents.

565 Proposing novel safety listening antecedents

566 Here, we suggest additional possible cognitive, interactional, and structural factors
567 influencing safety listening.

568 *Cognitive/skill-based factors*

569 Stress likely influences safety listening, yet this relationship and its underlying
570 mechanisms have not been empirically examined. Studies have shown that listening to
571 trauma increases listeners' stress (Michelson & Kluger, 2021) and clinicians reported that
572 stress influenced their listening (Long et al., 2020). We propose that stress impairs listening

573 by diminishing cognitive capabilities and information processing (Sandi, 2013), which are
574 required for situation awareness and listening abilities. Future research should examine how
575 stressful environments influence safety listening and the skills required to effectively listen
576 under stress.

577 Safety listening can be viewed as a skill rather than just an attitude, aligning with
578 crew resource management (Kanki et al., 2019), non-technical skills (Fletcher et al., 2004),
579 and workplace listening literatures (Itzchakov, 2020). This perspective is supported by
580 listeners reporting they were under-skilled in responding to complaints (Barlow, Morse, et al.,
581 2023). In addition to general listening skills like suspending judgment (Itzchakov, 2020),
582 safety listening skills encompass recognizing voice, determining when and what to listen to,
583 and listening under stress. For instance, listeners must notice muted voice (Noort et al.,
584 2021b) and undirected concerns (Kolbe et al., 2014), assess concerns' legitimacy, and discern
585 between conflicting voice messages. These skills are trainable, as evidenced by Noort et al.
586 (2021a), who found improved listening following crew resource management training.
587 Training programs could incorporate real conversation recordings to help participants assess
588 how others in their roles communicate (Stokoe, 2014).

589 *Interactional factors*

590 Groupthink – where the group's urge for conformity impedes the critical evaluation of
591 signals indicating problems (Janis, 1972) – may discourage effective safety listening.
592 Groupthink symptoms which can obstruct listening include collectively rationalizing
593 warnings, categorizing voicers as inferior, and enforcing conformity by pressuring dissenters
594 (Mannion & Thompson, 2014).

595 Interactions with technology and environments can impede the reception of voice, a
596 factor often overlooked in the literature. Wilson et al. (2007) illustrate that faulty
597 communication devices (e.g., dead batteries), human errors (e.g., mismatched radio

598 frequencies), background noise (e.g., gunfire), and environmental obstacles (e.g., terrain
599 obstructing radio signals) can impede voice's reception. Likewise, concerns may be unheard
600 (e.g., whispered), incorrectly sent (e.g., wrong address), or lost (e.g., improperly archived).
601 Future research may consider hearing as a mediator between safety voice and safety listening
602 and explore this relationship empirically.

603 Given that many communications rely on technology, both verbal (e.g., phone calls)
604 and written (e.g., email, instant messaging), future research should explore whether safety
605 voice and listening using these channels differ from face-to-face communication. Some
606 behavioral trace data in Table 8 may aid this endeavor. It may be that non-verbal information
607 gleaned from face-to-face or video communication (e.g., nodding) better facilitates
608 developing shared understandings. It could also be that – with avenues to publicly complain
609 about organizational practices (e.g., Glassdoor, blogs) – having a written and public record of
610 concerns may prompt listeners' action to address hazards to 'save face'. Moreover, certain
611 technology-mediated communications (e.g., phone calls) prompt instant safety listening while
612 others (e.g., emails) may not be immediately responded to.

613 *Structural factors*

614 Organizational policies and procedures aimed at addressing specific wrongdoings
615 have received limited attention in the literature despite their potential impact on safety
616 listening. Organizational failure investigations reveal that these policies were either absent,
617 unclear, or insufficient in guiding complaint handling (e.g., Crofts, 2017). These
618 investigations also underscore that protocols can fail in unforeseen circumstances. For
619 instance, in response to the September 11, 2001 attacks, organizations initially followed
620 standard hijack protocols assuming the hijackers would make demands upon landing;
621 however, this protocol was deemed inadequate for hijackings as attacks (Waller &
622 Uitdewilligen, 2008). Consequently, we propose that clear and adequate policies/procedures

623 highlighting their possible fallibility in unexpected situations would encourage safety
624 listening.

625 **Conclusion**

626 Research has highlighted the significance of voicing high consequence concerns to
627 avert harm. Nonetheless, although voicing is often necessary, it is insufficient as evident in
628 many organizational disasters where raised concerns went unaddressed. Recognizing this, we
629 conducted this integrated conceptual review to establish the concept of safety listening as the
630 necessary counterpart to safety voice. This review synthesizes existing publications to define
631 safety listening as listeners' behavioral responses to safety voice acts in organizational
632 settings which are intended to avoid physical and/or social harms. In advancing the field, we
633 distinguish safety listening from other listening forms, recommend non-motivational
634 explanations, advocate for the utilization of naturalistic data to measure listening behaviors,
635 and suggest novel contributory factors. This review lays the foundation for future research to
636 foster a comprehensive and cumulative understanding of safety listening, ultimately
637 contributing to the prevention of future organizational failures.

638 **References**

- 639 Atkinson, C. D. E., Wesselmann, E. D., & Lannin, D. G. (2022). Understanding why some
640 whistleblowers are venerated and others vilified. *Heroism Science*, 7(2), 1–34.
641 <https://doi.org/10.26736/hs.2022.01.06>
- 642 Bahari, S. F., & Clarke, S. (2013). Cross-validation of an employee safety climate model in
643 Malaysia. *Journal of Safety Research*, 45, 1–6. <https://doi.org/10.1016/j.jsr.2012.12.003>
- 644 Bargh, J. A., & Chartrand, T. L. (2000). The mind in the middle: A practical guide to priming
645 and automaticity research. In *Handbook of Research Methods in Social and Personality*
646 *Psychology* (pp. 253–285). https://doi.org/10.1163/_afco_asc_1327
- 647 Barlow, M. (2021). Enhancing intergroup communication in healthcare: The role of the
648 receiver. *Focus on Health Professional Education: A Multi-Professional Journal*, 22(3),
649 78–84. <https://doi.org/10.11157/fohpe.v22i3.523>
- 650 Barlow, M., Morse, K. J., Watson, B., & Maccallum, F. (2023). Identification of the barriers
651 and enablers for receiving a speaking up message: A content analysis approach.
652 *Advances in Simulation*, 8(17), 1–12. <https://doi.org/10.1186/s41077-023-00256-1>
- 653 Barlow, M., Watson, B., & Jones, E. (2023). Understanding observed receiver strategies in
654 the healthcare speaking up context. *International Journal of Healthcare Simulation*, Xx,
655 1–12. <https://doi.org/10.54531/SUFD5615>
- 656 Barlow, M., Watson, B., & Rudolph, J. (2019). How being a great receiver can change the
657 game in speaking up conversations. *MedEdPublish*, 8(3), 1–9.
658 <https://doi.org/10.15694/mep.2019.000204.1>
- 659 Barnes, C. M., Dang, C. T., Leavitt, K., Guarana, C. L., & Uhlmann, E. L. (2018). Archival
660 data in micro-organizational research: A toolkit for moving to a broader set of topics.
661 *Journal of Management*, 44(4), 1453–1478. <https://doi.org/10.1177/0149206315604188>
- 662 Baumeister, R. F., Vohs, K. D., & Funder, D. C. (2007). Psychology as the science of self-

- 663 reports and finger movements: Whatever happened to actual behavior? *Perspectives on*
664 *Psychological Science*, 2(4), 396–403. [https://doi.org/10.1111/j.1745-](https://doi.org/10.1111/j.1745-6916.2007.00051.x)
665 6916.2007.00051.x
- 666 Bazzoli, A., & Curcuruto, M. (2021). Safety leadership and safety voices: Exploring the
667 mediation role of proactive motivations. *Journal of Risk Research*, 24(11), 1368–1387.
668 <https://doi.org/10.1080/13669877.2020.1863846>
- 669 Berger, J., & Packard, G. (2022). Using natural language processing to understand people and
670 culture. *American Psychologist*, 77(4), 525–537. <https://doi.org/10.1037/amp0000882>
- 671 Bisbey, T. M., Kilcullen, M. P., Thomas, E. J., Ottosen, M. J., Tsao, K. J., & Salas, E. (2021).
672 Safety culture: An integration of existing models and a framework for understanding its
673 development. *Human Factors*, 63(1), 88–110.
674 <https://doi.org/10.1177/0018720819868878>
- 675 Blenkinsopp, J., Snowden, N., Manion, R., Powell, M., Davies, H. T. O., Millar, R., &
676 McHale, J. (2019). Whistleblowing over patient safety and care quality: A review of the
677 literature. *Journal of Health Organization and Management*.
- 678 Bodie, G. D., Jones, S. M., Vickery, A. J., Hatcher, L., & Cannava, K. (2014). Examining the
679 construct validity of enacted support: A multitrait–multimethod analysis of three
680 perspectives for judging immediacy and listening behaviors. *Communication*
681 *Monographs*, 81(4), 495–523. <https://doi.org/10.1080/03637751.2014.957223>
- 682 Brown, M. E., & Treviño, L. K. (2006). Ethical leadership: A review and future directions.
683 *Leadership Quarterly*, 17(6), 595–616. <https://doi.org/10.1016/j.leaqua.2006.10.004>
- 684 Casal, J. C., & Zalkind, S. S. (1995). Consequences of whistle-blowing: A study of the
685 experiences of management accountants. *Psychological Reports*, 77, 795–802.
- 686 Chamberlin, M., Newton, D. W., & Lepine, J. A. (2017). A meta-analysis of voice and its
687 promotive and prohibitive forms: Identification of key associations, distinctions, and

- 688 future research directions. *Personnel Psychology*, 70(1), 11–71.
689 <https://doi.org/10.1111/peps.12185>
- 690 Chen, A., & Treviño, L. K. (2022). Promotive and prohibitive ethical voice: Coworker
691 emotions and support for the voice. *Journal of Applied Psychology*.
692 <https://doi.org/10.1037/apl0001003>
- 693 Chen, A., & Treviño, L. K. (2023). The consequences of ethical voice inside the
694 organization: An integrative review. *Journal of Applied Psychology*.
- 695 Cleary, S. R., & Duke, M. (2019). Clinical governance breakdown: Australian cases of wilful
696 blindness and whistleblowing. *Nursing Ethics*, 26(4), 1039–1049.
697 <https://doi.org/10.1177/0969733017731917>
- 698 Cortina, L. M., & Magley, V. J. (2003). Raising voice, risking retaliation: Events following
699 interpersonal mistreatment in the workplace. *Journal of Occupational Health*
700 *Psychology*, 8(4), 247–265.
- 701 Crofts, P. (2017). Criminalising institutional failures to prevent, identify or react to child
702 sexual abuse. *International Journal for Crime, Justice and Social Democracy*, 6(3),
703 104–122. <https://doi.org/10.5204/ijcjsd.v6i3.421>
- 704 Cuellar, Keil, & Johnson. (2006). The deaf effect response to bad news reporting in
705 information systems projects. *E-Service Journal*, 5(1), 75.
706 <https://doi.org/10.2979/esj.2006.5.1.75>
- 707 Diener, E., Northcott, R., Zyphur, M. J., & West, S. G. (2022). Beyond experiments.
708 *Perspectives on Psychological Science*, 17(4), 1101–1119.
709 <https://doi.org/10.1177/17456916211037670>
- 710 Edmondson, A. C. (2018). *The fearless organization: Creating psychological safety in the*
711 *workplace for learning, innovation, and growth*. John Wiley & Sons.
- 712 Endsley, M. R. (1995). Toward a theory of situation awareness in dynamic systems. *Human*

- 713 *Factors*, 37(1), 32–64. <https://doi.org/10.1518/001872095779049543>
- 714 Fernando, D., & Prasad, A. (2019). Sex-based harassment and organizational silencing: How
715 women are led to reluctant acquiescence in academia. *Human Relations*, 72, 1565–1594.
716 <https://doi.org/10.1177/0018726718809164>
- 717 Fletcher, G., Flin, R., McGeorge, P., Glavin, R., Maran, N., & Patey, R. (2004). Rating non-
718 technical skills: Developing a behavioural marker system for use in anaesthesia.
719 *Cognition, Technology and Work*, 6, 165–171. [https://doi.org/10.1007/s10111-004-](https://doi.org/10.1007/s10111-004-0158-y)
720 0158-y
- 721 Gillespie, A. (2020). Disruption, self-presentation, and defensive tactics at the threshold of
722 learning. *Review of General Psychology*, 24(4), 382–396.
723 <https://doi.org/10.1177/1089268020914258>
- 724 Groves, P. S., Bunch, J. L., Cannava, K. E., Sadoska, K. A., & Williams, J. K. (2021). Nurse
725 sensemaking for responding to patient and family safety concerns. *Nursing Research*,
726 70(2), 106–113. <https://doi.org/10.1097/NNR.0000000000000487>
- 727 Hald, E. J., Gillespie, A., & Reader, T. W. (2020). Causal and corrective organisational
728 culture: A systematic review of case studies of institutional failure. *Journal of Business*
729 *Ethics*. <https://doi.org/10.1007/s10551-020-04620-3>
- 730 Hällgren, M., Rouleau, L., & De Rond, M. (2018). A matter of life or death: How extreme
731 context research matters for management and organization studies. *Academy of*
732 *Management Annals*, 12(1), 111–153. <https://doi.org/10.5465/annals.2016.0017>
- 733 Harlos, K. P. (2001). When organizational voice systems fail: More on the deaf-ear syndrome
734 and frustration effects. *The Journal of Applied Behavioral Science*, 37(3), 324–342.
- 735 Herrnstein, R. J., & Prelec, D. (1991). Melioration: A theory of distributed choice. *Journal of*
736 *Economic Perspectives*, 5(3), 137–156. <https://doi.org/10.1257/jep.5.3.137>
- 737 Hill, A. D., White, M. A., & Wallace, J. C. (2014). Unobtrusive measurement of

- 738 psychological constructs in organizational research. *Organizational Psychology Review*,
739 4(2), 148–174. <https://doi.org/10.1177/2041386613505613>
- 740 Hsieh, S. Y., Thomas, D., & Rotem, A. (2005). The organisational response to patient
741 complaints: A case study in Taiwan. *International Journal of Health Care Quality*
742 *Assurance*, 18(4), 308–320. <https://doi.org/10.1108/09526860510602578>
- 743 Huang, Y. H., Zohar, D., Robertson, M. M., Garabet, A., Lee, J., & Murphy, L. A. (2013).
744 Development and validation of safety climate scales for lone workers using truck drivers
745 as exemplar. *Transportation Research Part F: Traffic Psychology and Behaviour*, 17, 5–
746 19. <https://doi.org/10.1016/j.trf.2012.08.011>
- 747 Hulland, J. (2020). Conceptual review papers: Revisiting existing research to develop and
748 refine theory. *AMS Review*, 10(1–2), 27–35. [https://doi.org/10.1007/s13162-020-00168-](https://doi.org/10.1007/s13162-020-00168-7)
749 7
- 750 Itzchakov, G. (2020). Can listening training empower service employees? The mediating
751 roles of anxiety and perspective-taking. *European Journal of Work and Organizational*
752 *Psychology*, 29(6), 938–952. <https://doi.org/10.1080/1359432X.2020.1776701>
- 753 Itzchakov, G., & Kluger, A. N. (2017). Can holding a stick improve listening at work? The
754 effect of Listening Circles on employees' emotions and cognitions. *European Journal of*
755 *Work and Organizational Psychology*, 26(5), 663–676.
756 <https://doi.org/10.1080/1359432X.2017.1351429>
- 757 Janis, I. (1972). *Victims of groupthink*.
- 758 Jones, A., Blake, J., Adams, M., Kelly, D., Mannion, R., & Maben, J. (2021). Interventions
759 promoting employee “speaking-up” within healthcare workplaces: A systematic
760 narrative review of the international literature. *Health Policy*, 125(3), 375–384.
761 <https://doi.org/10.1016/j.healthpol.2020.12.016>
- 762 Jones, A., & Kelly, D. (2014). Deafening silence? Time to reconsider whether organisations

- 763 are silent or deaf when things go wrong. *BMJ Quality and Safety*, 23(9), 709–713.
764 <https://doi.org/10.1136/bmjqs-2013-002718>
- 765 Kanki, B. G., Anca, J., & Chidester, T. R. (Eds.). (2019). *Crew resource management* (3rd
766 ed.).
- 767 Kenny, K. (2019). *Whistleblowing: Toward a new theory*. Harvard University Press.
- 768 Kenny, K., Fotaki, M., & Scriver, S. (2019). Mental health as a weapon: Whistleblower
769 retaliation and normative violence. *Journal of Business Ethics*, 160(3), 801–815.
770 <https://doi.org/10.1007/s10551-018-3868-4>
- 771 King, D. D., Ryan, A. M., & Van Dyne, L. (2019). Fostering future voice after non-
772 endorsement of suggestions. *Journal of Occupational and Organizational Psychology*,
773 92, 535–565. <https://doi.org/10.1111/joop.12275>
- 774 Kirby, J. (2018, May 16). The sex abuse scandal surrounding USA Gymnastics team doctor
775 Larry Nassar, explained. *Vox.Com*.
776 [https://www.vox.com/identities/2018/1/19/16897722/sexual-abuse-usa-gymnastics-](https://www.vox.com/identities/2018/1/19/16897722/sexual-abuse-usa-gymnastics-larry-nassar-explained)
777 [larry-nassar-explained](https://www.vox.com/identities/2018/1/19/16897722/sexual-abuse-usa-gymnastics-larry-nassar-explained)
- 778 Kjell, O. N. E., Kjell, K., Garcia, D., & Sikstrom, S. (2019). Semantic measures: Using
779 natural language processing to measure, differentiate, and describe psychological
780 constructs. *Psychological Methods*, 24(1), 92–115.
781 <https://doi.org/10.1037/met0000191.supp>
- 782 Kluger, A. N., & Izchakov, G. (2022). The power of listening at work. *Annual Review of*
783 *Organizational Psychology and Organizational Behavior*, 7(01), 46–54.
- 784 Kluger, A. N., Lehmann, M., Aguinis, H., Itzhakov, G., Gordoni, G., Zyberaj, J., & Bakaç,
785 C. (2023). A meta-analytic systematic review and theory of the effects of perceived
786 listening on work outcomes. *Journal of Business and Psychology*.
787 <https://doi.org/10.1007/s10869-023-09897-5>

- 788 Kolbe, M., Grote, G., Waller, M. J., Wacker, J., Grande, B., Burtscher, M. J., & Spahn, D. R.
789 (2014). Monitoring and talking to the room: Autochthonous coordination patterns in
790 team interaction and performance. *Journal of Applied Psychology*, 99(6), 1254–1267.
791 <https://doi.org/10.1037/a0037877>
- 792 Krenz, H. L., & Burtscher, M. J. (2021). Investigating voice in action teams: A critical
793 review. *Cognition, Technology and Work*, 23(3), 605–624.
794 <https://doi.org/10.1007/s10111-020-00646-9>
- 795 Lainidi, O., Jendeby, M. K., Montgomery, A., Mouratidis, C., Paitaridou, K., Cook, C.,
796 Johnson, J., & Karakasidou, E. (2023). An integrative systematic review of employee
797 silence and voice in healthcare: What are we really measuring? *Frontiers in Psychiatry*,
798 14(May), 1–28. <https://doi.org/10.3389/fpsyt.2023.1111579>
- 799 Lemke, R., Burtscher, M. J., Seelandt, J. C., Grande, B., & Kolbe, M. (2021). Associations of
800 form and function of speaking up in anaesthesia: A prospective observational study.
801 *British Journal of Anaesthesia*, 1–10. <https://doi.org/10.1016/j.bja.2021.08.014>
- 802 Long, J., Jowsey, T., Garden, A., Henderson, K., & Weller, J. (2020). The flip side of
803 speaking up: A new model to facilitate positive responses to speaking up in the
804 operating theatre. *British Journal of Anaesthesia*, 125(6), 1099–1106.
805 <https://doi.org/10.1016/j.bja.2020.08.025>
- 806 Luo, X., Rechartd, A., Sun, G., Nejad, K. K., Yáñez, F., Yilmaz, B., Lee, K., Cohen, A. O.,
807 Borghesani, V., Pashkov, A., Marinazzo, D., Nicholas, J., Salatiello, A., Sucholutsky, I.,
808 Minervini, P., Razavi, S., Rocca, R., Yusifov, E., Okalova, T., ... Love, B. C. (2024).
809 *Large language models surpass human experts in predicting neuroscience results*.
810 <http://arxiv.org/abs/2403.03230>
- 811 Macnamara, J. (2018). Toward a theory and practice of organizational listening. *International*
812 *Journal of Listening*, 32(1), 1–23. <https://doi.org/10.1080/10904018.2017.1375076>

- 813 Mannion, R., & Thompson, C. (2014). Systematic biases in group decision-making:
814 Implications for patient safety. *International Journal for Quality in Health Care*, 26(6),
815 606–612. <https://doi.org/10.1093/intqhc/mzu083>
- 816 Martin, B., & Rifkin, W. (2004). The dynamics of employee dissent: Whistleblowers and
817 organizational jiu-jitsu. *Public Organization Review*, 4(3), 221–238.
818 <https://doi.org/10.1023/b:porj.0000036869.45076.39>
- 819 Martin, G. P., Chew, S., & Dixon-Woods, M. (2021). Why do systems for responding to
820 concerns and complaints so often fail patients, families and healthcare staff? A
821 qualitative study. *Social Science and Medicine*, 287, 114375.
822 <https://doi.org/10.1016/j.socscimed.2021.114375>
- 823 McDonald, S., & Ahern, K. (2000). The professional consequences of whistleblowing by
824 nurses. *Journal of Professional Nursing*, 16(6), 313–321.
825 <https://doi.org/10.1053/jpnu.2000.18178>
- 826 Mesmer-Magnus, J. R., & Viswesvaran, C. (2005). Whistleblowing in organizations: An
827 examination of correlates of whistleblowing intentions, actions, and retaliation. *Journal*
828 *of Business Ethics*, 62(3), 277–297. <https://doi.org/10.1007/s10551-005-0849-1>
- 829 Miceli, M. P., Near, J. P., & Dworkin, T. M. (2008). *Whistle-blowing in organizations*.
830 Psychology Press. <https://doi.org/10.4324/9780203809495>
- 831 Miceli, M. P., Rehg, M., Near, J. P., & Ryan, K. C. (1999). Can laws protect whistle-
832 blowers? Results of a naturally occurring field experiment. *Work and Occupations*,
833 26(1), 129–151.
- 834 Morrison, E. W. (2011). Employee voice behavior: Integration and directions for future
835 research. *Academy of Management Annals*, 5(1), 373–412.
836 <https://doi.org/10.1080/19416520.2011.574506>
- 837 Morrison, E. W. (2014). Employee voice and silence. *Annual Review of Organizational*

- 838 *Psychology and Organizational Behavior*, 1(1), 173–197.
839 <https://doi.org/10.1146/annurev-orgpsych-031413-091328>
- 840 Near, J. P., & Jensen, T. C. (1983). The whistleblowing process: Retaliation and perceived
841 effectiveness. *Work and Occupations*, 10(1), 3–28.
- 842 Near, J. P., & Miceli, M. P. (1985). Organizational dissidence: The case of whistle-blowing.
843 *Journal of Business Ethics*, 4, 1–16. https://doi.org/10.1007/978-94-007-4126-3_8
- 844 Near, J. P., & Miceli, M. P. (1986). Retaliation against whistle blowers: Predictors and
845 effects. *Journal of Applied Psychology*, 71(1), 137–145. [https://doi.org/10.1037/0021-](https://doi.org/10.1037/0021-9010.71.1.137)
846 [9010.71.1.137](https://doi.org/10.1037/0021-9010.71.1.137)
- 847 Noort, M. C., Reader, T. W., & Gillespie, A. (2019). Speaking up to prevent harm: A
848 systematic review of the safety voice literature. *Safety Science*, 117(January), 375–387.
849 <https://doi.org/10.1016/j.ssci.2019.04.039>
- 850 Noort, M. C., Reader, T. W., & Gillespie, A. (2021a). Safety voice and safety listening during
851 aviation accidents: Cockpit voice recordings reveal that speaking-up to power is not
852 enough. *Safety Science*, 139(March).
- 853 Noort, M. C., Reader, T. W., & Gillespie, A. (2021b). The sounds of safety silence:
854 Interventions and temporal patterns unmute unique safety voice content in speech. *Safety*
855 *Science*, 140(June 2020), 105289. <https://doi.org/10.1016/j.ssci.2021.105289>
- 856 Park, H., Bjørkelo, B., & Blenkinsopp, J. (2020). External whistleblowers' experiences of
857 workplace bullying by superiors and colleagues. *Journal of Business Ethics*, 161(3),
858 591–601. <https://doi.org/10.1007/s10551-018-3936-9>
- 859 Peirce, E., Smolinski, C. A., & Rosen, B. (1998). Why sexual harassment complaints fall on
860 deaf ears. *Academy of Management Executive*, 12(3), 41–54.
861 <https://doi.org/10.5465/ame.1998.1109049>
- 862 Pierce, C. A., Broberg, B. J., McClure, J. R., & Aguinis, H. (2004). Responding to sexual

- 863 harassment complaints: Effects of a dissolved workplace romance on decision-making
864 standards. *Organizational Behavior and Human Decision Processes*, 95(1), 66–82.
865 <https://doi.org/10.1016/j.obhdp.2003.06.001>
- 866 Power, S. A., Zittoun, T., Akkerman, S., Wagoner, B., Cabra, M., Cornish, F., Hawlina, H.,
867 Heasman, B., Mahendran, K., Psaltis, C., Rajala, A., Veale, A., & Gillespie, A. (2023).
868 Social psychology of and for world-making. *Personality and Social Psychology Review*.
869 <https://doi.org/10.1177/10888683221145756>
- 870 Reader, T. W. (2022). Stakeholder safety communication: Patient and family reports on
871 safety risks in hospitals. *Journal of Risk Research*, 25(7), 807–824.
872 <https://doi.org/10.1080/13669877.2022.2061036>
- 873 Rehg, M. T., Miceli, M. P., Near, J. P., & Van Scotter, J. R. (2008). Antecedents and
874 outcomes of retaliation against whistleblowers: Gender differences and power
875 relationships. *Organization Science*, 19(2), 221–240.
876 <https://doi.org/10.1287/orsc.1070.0310>
- 877 Ross, L. (1977). The intuitive psychologist and his shortcomings: Distortions in the
878 attribution process. In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology*
879 (10th ed.). Academic Press.
- 880 Roulet, T. J., & Pichler, R. (2020). Blame game theory: Scapegoating, whistleblowing and
881 discursive struggles following accusations of organizational misconduct. *Organization*
882 *Theory*, 1(4). <https://doi.org/10.1177/2631787720975192>
- 883 Salas, E., Bisbey, T. M., Traylor, A. M., & Rosen, M. A. (2020). Can teamwork promote
884 safety in organizations? *Annual Review of Organizational Psychology and*
885 *Organizational Behavior*, 7, 283–313. [https://doi.org/10.1146/annurev-orgpsych-](https://doi.org/10.1146/annurev-orgpsych-012119-045411)
886 [012119-045411](https://doi.org/10.1146/annurev-orgpsych-012119-045411)
- 887 Sandi, C. (2013). Stress and cognition. *Wiley Interdisciplinary Reviews: Cognitive Science*,

- 888 4(3), 245–261. <https://doi.org/10.1002/wcs.1222>
- 889 Schegloff, E. A. (1992). Repair after next turn: The last structurally provided defense of
890 intersubjectivity in conversation. *American Journal of Sociology*, 97(5), 1295–1345.
- 891 Schramm, W. (1955). *How communication works*. University of Illinois Press.
- 892 Shannon, C. E., & Weaver, W. (1949). *The mathematical theory of communication*.
893 University of Illinois Press.
- 894 Sheeran, P. (2005). Intention-behavior relations: A conceptual and empirical review.
895 *European Review of Social Psychology*, 12(1), 1–36.
896 <https://doi.org/10.1002/0470013478.ch1>
- 897 Siddaway, A. P., Wood, A. M., & Hedges, L. V. (2019). How to do a systematic review: A
898 best practice guide for conducting and reporting narrative reviews, meta-analyses, and
899 meta-Syntheses. *Annual Review of Psychology*, 70, 747–770.
900 <https://doi.org/10.1146/annurev-psych-010418-102803>
- 901 Skinner, B. F. (1963). Operant behavior. *American Psychologist*, 18(8), 503–515.
902 <https://doi.org/10.1037/h0045185>
- 903 Speer, A. B., Perrotta, J., Tenbrink, A. P., Wegmeyer, L. J., Delacruz, A. Y., & Bowker, J.
904 (2022). Turning words into numbers: Assessing work attitudes using natural language
905 processing. *Journal of Applied Psychology*, 108(6), 1027–1045.
906 <https://doi.org/10.1037/apl0001061>
- 907 Stokoe, E. (2014). The Conversation Analytic Role-play Method (CARM): A method for
908 training communication skills as an alternative to simulated role-play. *Research on
909 Language and Social Interaction*, 47(3), 255–265.
910 <https://doi.org/10.1080/08351813.2014.925663>
- 911 Sumanth, J. J., Mayer, D. M., & Kay, V. S. (2011). Why good guys finish last: The role of
912 justification motives, cognition, and emotion in predicting retaliation against

- 913 whistleblowers. *Organizational Psychology Review*, 1(2), 165–184.
914 <https://doi.org/10.1177/2041386611398283>
- 915 Taylor, A. (2014, December 2). Bhopal: The world’s worst industrial disaster, 30 years later.
916 *The Atlantic*. [https://www.theatlantic.com/photo/2014/12/bhopal-the-worlds-worst-](https://www.theatlantic.com/photo/2014/12/bhopal-the-worlds-worst-industrial-disaster-30-years-later/100864/)
917 [industrial-disaster-30-years-later/100864/](https://www.theatlantic.com/photo/2014/12/bhopal-the-worlds-worst-industrial-disaster-30-years-later/100864/)
- 918 Tiitinen, L. (2020). The power of silence: Silencing as a method of preventing
919 whistleblowing. *European Journal of Social Work*, 23(1), 68–79.
920 <https://doi.org/10.1080/13691457.2018.1460323>
- 921 Törnberg, P. (2023). *ChatGPT-4 outperforms experts and crowd workers in annotating*
922 *political twitter messages with zero-shot learning*. XXX(Xx), 1–5.
923 <http://arxiv.org/abs/2304.06588>
- 924 Tucker, S., & Turner, N. (2015). Sometimes it hurts when supervisors don’t listen: The
925 antecedents and consequences of safety voice among young workers. *Journal of*
926 *Occupational Health Psychology*, 20(1), 72–81. <https://doi.org/10.1037/a0037756>
- 927 van Dael, J., Reader, T., Gillespie, A., Freise, L., Darzi, A., & Mayer, E. (2022). Do national
928 policies for complaint handling in English hospitals support quality improvement?
929 Lessons from a case study. *Journal of the Royal Society of Medicine*, 0(0),
930 014107682210982. <https://doi.org/10.1177/01410768221098247>
- 931 van de Mortel, T. (2008). Faking it: Social desirability response bias in self-report research.
932 *Australian Journal of Advanced Nursing*, 25(4), 40–48.
- 933 Vandekerckhove, W., Brown, A. J., & Tsahuridu, E. (2014). Managerial responsiveness to
934 whistleblowing: Expanding the research horizon. In *International Handbook on*
935 *Whistleblowing Research* (pp. 298–328). <https://doi.org/10.4337/9781781006795.00021>
- 936 Vandekerckhove, W., & Langenberg, S. (2012). Can we organize courage? Implications from
937 Foucault’s parrhesia. *Electronic Journal of Business Ethics and Organizational Studies*,

- 938 17(2), 35–44.
- 939 Waller, M. J., & Uitdewilligen, S. (2008). Talking to the room: Collective sensemaking
940 during crisis situations. *Time in Organizational Research, January*, 186–203.
941 <https://doi.org/10.4324/9780203889947>
- 942 Weick, K. E. (1990). The vulnerable system: An analysis of the Tenerife air disaster. *Journal*
943 *of Management, 16*(3), 571–593.
- 944 Wellman, N., Mayer, D. M., Ong, M., & DeRue, D. S. (2016). When are do-gooders treated
945 badly? Legitimate power, role expectations, and reactions to moral objection in
946 organizations. *Journal of Applied Psychology, 10*(6), 793–814.
947 [http://eds.b.ebscohost.com.lopes.idm.oclc.org/ehost/pdfviewer/pdfviewer?vid=2&sid=0c](http://eds.b.ebscohost.com.lopes.idm.oclc.org/ehost/pdfviewer/pdfviewer?vid=2&sid=0c282d67-4bc0-4910-a425-8fdea33dc8c1%40sessionmgr102)
948 [282d67-4bc0-4910-a425-8fdea33dc8c1%40sessionmgr102](http://eds.b.ebscohost.com.lopes.idm.oclc.org/ehost/pdfviewer/pdfviewer?vid=2&sid=0c282d67-4bc0-4910-a425-8fdea33dc8c1%40sessionmgr102)
- 949 Westrum, R. (2004). A typology of organisational cultures. *Quality and Safety in Health*
950 *Care, 13*(SUPPL. 2), 22–27. <https://doi.org/10.1136/qshc.2003.009522>
- 951 Westrum, R. (2014). The study of information flow: A personal journey. *Safety Science, 67*,
952 58–63. <https://doi.org/10.1016/j.ssci.2014.01.009>
- 953 Wilkinson, A., Townsend, K., Graham, T., & Muurlink, O. (2015). Fatal consequences: An
954 analysis of the failed employee voice system at the Bundaberg Hospital. *Asia Pacific*
955 *Journal of Human Resources, 53*(3), 265–280. <https://doi.org/10.1111/1744-7941.12061>
- 956 Wilson, K. A., Salas, E., Priest, H. A., & Andrews, D. (2007). Errors in the heat of battle:
957 Taking a closer look at shared cognition breakdowns through teamwork. *Human*
958 *Factors, 49*(2), 243–256. <https://doi.org/10.1518/001872007X312478>
- 959 Yeomans, M., Boland, F. K., Collins, H. K., Abi-Esber, N., & Wood Brooks, A. (2023). *A*
960 *practical guide to conversation research: How to study what people say to each other.*
961 1–23.
- 962 Yip, J., & Fisher, C. M. (2022). Listening in organizations: A synthesis and future agenda.

963 *Academy of Management Annals*, 16(2), 657–679.

964 <https://doi.org/10.5465/annals.2020.0367>

965