Hearing Women in the Workplace:
Fostering Better Communication at Work

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Summary

Dating back to ancient Greece, there is a long history of public speaking and debate being a masculine discipline with women being hushed. Consequently, the prejudice towards female voice and speech is deeply ingrained through language and culture. More recently, countless published research papers and popular press articles verify that women struggle to be heard in the workplace, particularly in meetings and in the boardroom.

Our original remit was to understand why women aren't heard in the workplace which raised two immediate questions. Firstly, by women we focused on traditional male-female differences as explored in legacy studies rather than broader gender studies. Secondly, what is meant by being heard, is it physically being heard or simply not being acknowledged or respected? Furthermore, there are many other confounding factors, beyond the scope of this literature review, that effect women being heard in the workplace and need further exploration, including the impact of gender, race, culture, socioeconomic status, personality and virtual meetings to name a few.

This literature review highlights the legacy evidence showing that women are often less heard in the workplace compared to men. It concludes that women are not heard because:

i) women are not physically heard, due to the characteristics of a women's voice and whether males can hear it,

ii) women are physically heard but not listened to, relating to women being interrupted or talked over, and men talking more in poorly managed meetings,

iii) women are physically heard and listened to but then not understood, which concerns communication styles and differences in use and understanding of language between males and females, and

iv) women are physically heard, listened to and understood but then not acknowledged or their views acted upon, which is the broader issue of women being ignored in the workplace.

Work and the workplace had changed significantly since the Covid-19 pandemic, and much of the reviewed research was carried out before the pandemic. The literature review identified the need for further research to understand if women are better heard in the workplace and if attitudes have changed.

Nonetheless, the literature review has also highlighted some basic means of improving communication between males and female in the workplace. The guidance will be developed further following further proposed research.

1 Overview

There is a very long history of public speaking and debate being a masculine discipline with women being hushed. Beard (2017) highlights that in Homer's *Odyssey* around 3,000 years ago, Telemachus tells his mother to go indoors leaving the story in the care of men. She also recalls that Aristophanes (circa 400 BC) created a comedy based on the joke that women could not speak properly in public, and in Roman mythology Io was turned into a lowing cow so she could not speak. Beard also recounts that in the 1st century AD, Mesia defended herself in court so was considered masculine and nicknamed "the androgynous", and Afrania's confident rebuttals were described as "growling". Beard argues that prejudice towards female voice and speech is deeply ingrained through language and culture. More recently, countless published research papers and popular press articles verify that women struggle to be heard in the workplace, particularly in meetings and in the boardroom.

Our original remit was to understand why women aren't heard in the workplace which raised two immediate questions. Firstly, by women we focused on traditional male-female differences as explored in legacy studies rather than broader gender studies. Secondly, what is meant by being heard, is it physically being heard or simply not being acknowledged or respected? Furthermore, there are many other confounding factors, beyond the scope of this literature review, that effect women being heard in the workplace and need further exploration, including the impact of gender, race, culture, socioeconomic status, personality and virtual meetings to name a few.

This literature review highlights the legacy evidence showing that women are often less heard in the workplace compared to men. There appears to be for four interdependent and accumulating reasons for this:

1. women are not physically heard,
2. women are physically heard but not listened to,
3. women are physically heard and listened to but then not understood,
4. women are physically heard, listened to and understood but then not acknowledged or have their views acted upon.

In other words, there are four hurdles for women to overcome for them to be heard, see Figure 1.

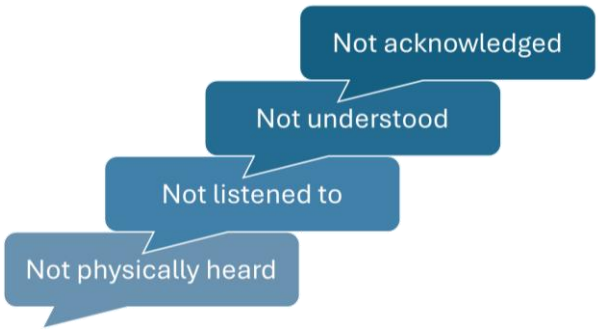

Figure 1 Hurdles for women to overcome to be heard

The first hurdle relates to the characteristics of a woman's voice and if males can hear it. The second hurdle relates more to women being interrupted or talked over, and men talking more in poorly managed meetings. The third concerns communication styles and differences in the use of language between males and females. Finally, there is the broader issue of women being ignored and not acknowledged in the workplace. The research and evidence behind these hurdles are explored in the following sections.

This paper mostly focusses on why women are not actually heard when speaking and how to improve the situation by fostering better communication in the workplace. This is subtly different to the broader subject of why women "do not have a voice" in the workplace, i.e., why they are not acknowledged or why their professional opinions are not acted upon. For example, Morrison (2014) defines "employee voice as informal and discretionary communication by an employee of ideas, suggestions, concerns, information about problems, or opinions about work-related issues to persons who might be able to take appropriate action, with the intent to bring about improvement or change." However, these interpretations of speaking and voice are interrelated, so the broader concern of lack of voice is also touched upon in this report.

As James (2020) points out "One of the major implications of women's ideas being ignored (or stolen) is that women stop voicing ideas altogether." Paraphrasing her sources, Borsellino (2024) states that "After being consistently excluded, ignored, or dismissed, they [women] may start to lose confidence in themselves — making them afraid to speak up when they do have the chance or causing them to put other people's voices before their own. And this creates a terrible, self-perpetuating cycle." This is a form of "learned helplessness", identified some time ago by psychologist Seligman (1972), referring to a condition that occurs after a person has repeatedly experienced a stressful situation that they have no control over. Not speaking up is also related to "international visibility", coined by the team at Stanford University (Ballakrishnen, Fielding-Singh and Magliozzi, 2018), a strategy adopted by women to avoid conflict in the workplace and risk their careers. Regarding the broader sense of women not having a voice, Tessier (2015) asserts "For women who have been subjected to gender discrimination or harassment, remaining silent is often the automatic response. Whether it's in the workplace, at home or school, fear of speaking out is often instinctual."

Women not being heard, and not having a voice, in the workplace is unacceptable as it equates to prejudice and inequality. If that alone is not a sufficient reason to improve the situation, then consider that not listening to women or acting upon their advice can affect the success and performance of an organisation. For example, (McKinsey, 2020) reported that the most gender-diverse companies, i.e. executive teams with more than 30% women, are 48% more likely to financially outperform the least gender-diverse companies. Due to the range of perspectives present, diverse teams can outperform homogenous teams – female representation is beneficial to innovation and solving problems (Farh et al, 2020; Kramer, 2023). More specifically, a study by Farh et al (2020) found that listening to females can enhance performance in complex tasks. Furthermore, whilst overall men and women do not differ in perceived leadership effectiveness, men are more confident in rating themselves as more effective, but women are rated as significantly more effective than men (Paustian-Underdahl, Walker & Woehr, 2014).

2 Characteristics of voice and hearing

2.1 Voice pitch and tone

Pitch, tone and volume are three aspects of vocal delivery.

- Pitch relates to variations in the frequency of the sound waves producing them, where a high-frequency sound wave is perceived as a high-pitch sound and a low frequency corresponds to a low pitch.
- Tone refers to pitch changes in the voice to alter the meaning of words and phrases, in effect it reflects the quality or mood of voice.
- Volume is the amplitude (or power) of a sound and reflects the perceived loudness or softness of a voice.

In her book, *Eve*, Bohannon (2023) explains that primate vocals and hearing initially evolved to allow better communication in the forest canopy by being heard above the cacophony of animal sounds. She argues that, at the forest ground level, sound waves rebound off the earth increasing their amplitude, so vocals need to compensate for this in the trees. Basically, primates "evolved to both hear and produce lower pitches, and they found ways to get louder. By lowering the pitch, they automatically gave themselves more distance, since the lower the pitch of a sound, the longer the soundwave, and the longer the wave, the further it travels" says Bohannon. Nonetheless, male and female voices evolved differently. Bohannon believes it is because males, with their more muscular bodies and lung capacity, needed to warn the more vulnerable females and their offspring of nearby predators. However, the more commonly cited reason is that the later evolving male hominids needed to communicate across longer distances when hunting on grasslands, compared to the females who gathered food and nurtured offspring.

Nowadays, physiologically, women's voices are at a higher pitch compared to most men's because their vocal tracts tend to be shorter due to the surge of testosterone released during puberty causing male vocal cords to elongate and thicken. Watson (2019) explains that "In general, women speak at a higher pitch — about an octave higher than men." An adult woman's fundamental frequency range is typically 165 to 255 Hz, whereas a man's is 80 to 180 Hz (Bernhardsson, 2017; Estrada y Santiago, 2020; Watson, 2019). Interestingly, Bernhardsson (2017) shows that the voice frequency range, including differences between males and females, varies slightly between countries and languages.

Based on recordings of 55 males and females, Mendoza et al (1996) found that "The female voice showed greater levels of aspiration noise … which causes the female voice to have a more 'breathy' quality than the male voice." Watson (2019) surmises "Women also have a larger gap at the back of their vocal cords, which allows more air to pass through. This gives women's voices more of a 'breathy' quality than men's voices. The combination of higher pitch and breathiness can make women's voices more challenging to hear, especially for older adults with age-related hearing loss, in which high-frequency sounds diminish first."

The decline of hearing sensitivity of males and females with age has been thoroughly researched over several decades. The amalgamated results of these studies are presented in *ISO 7029* (International Standards Organization, 2017), which includes a graph of the response

to pure tones, see Figure 2. The standard clearly shows that males have a larger and earlier onset of hearing loss, notably of speech frequencies above 2,000 Hz for those 60 years of age. The lower frequencies in the voice range appear markedly less affected but, for example, the hearing loss of 10 dB at 500Hz for aged 70 is equivalent to hearing the sound half as loud. Nevertheless, on first appearance, there does not appear to be much difference between males and females at around 125-250Hz. It is not quite understood why some males have an earlier onset of hearing loss, especially the higher frequencies, a common condition known as presbycusis (age-related hearing loss). Speech discrimination can be more challenging for higher-pitched voices, Rabinowitz et al (2006) identified differences in auditory processing and how high-frequency hearing loss can affect the ability to hear or understand female voices, especially in environments with high background noise or poor acoustics. Males not hearing females is affected even further due to the frequency spectrum of speech.

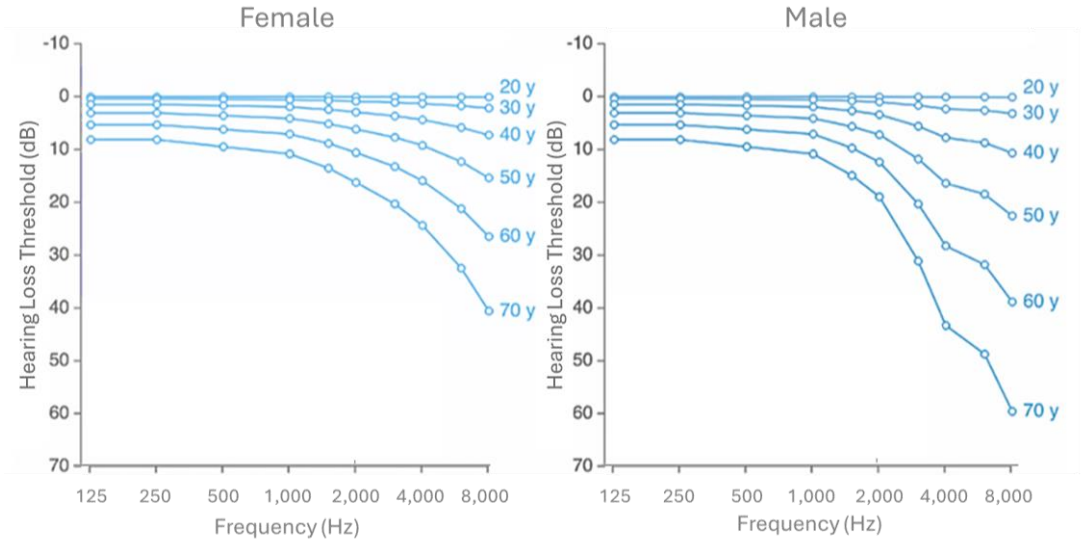

Figure 2 Hearing loss (of pure tones) with age for women and men

While it is widely recognised that humans can hear between 20 and 20,000 Hz, they are most sensitive to sounds between 250 and 5,000 Hz (Estrada y Santiago, 2020) or even 500 and 4000 Hz (Dobie & Van Hemel, 2005), see Figure 3. Consequently, most speech, for males and females, falls below the lower edge of the most sensitive hearing frequency band but speech can still be clearly heard (before the onset of hearing loss). This is because voice frequency ranges are expressed as a fundamental frequency, i.e. the lowest frequency of a waveform that is perceived the loudest. Estrada y Santiago explains "we can hear the missing keynotes that are mostly audible for us because there is enough of the harmonic series present to give our ears this impression."

Ecophon (2024) explains that "The vowels are also a lower frequency and the consonants a high frequency. While the vowels create the sound volume of speech, it is the consonants which are the bearers of information." Estrada y Santiago (2020) concurs, "They [consonants] create a harder tone, are much lower in volume than vowel sounds, and form the entry door to the spectrum of the high frequencies. They are also very important letters for identifying the meaning of the words audibly, so we need to preserve their clarity". Figure 3 shows that the frequency imprint of vowels is 250-2,000 Hz whereas consonants have a frequency range of

250-8,000 Hz, with unvoiced/surd consonants (like f, p, s and t) at 2,000-8,000 Hz and voiced/sonant consonants (like b, d, g and m) overlapping with vowels around 250-4,000 Hz (shown with a dotted line). Therefore, it is much more difficult to understand what is being said if the high-frequency consonants cannot be heard. Furthermore, the consonant sounds of females are higher pitched than males (Pépiot, 2021). Consequently, older males with high-frequency hearing loss are less likely to understand what their female colleagues are saying.

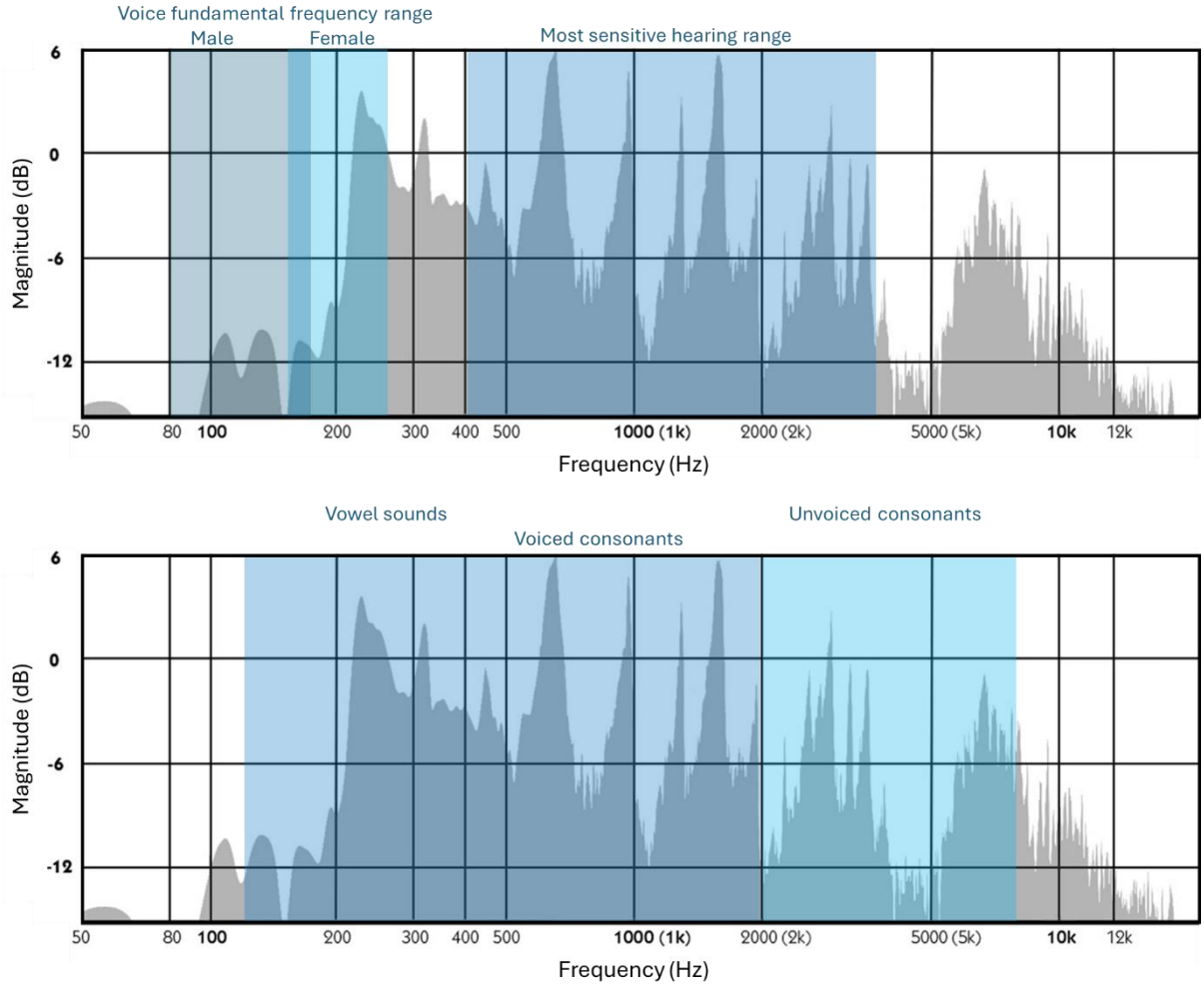

Figure 3 Voice frequency spectrum

The idea that some men can't hear women's voices is rooted in some specific and nuanced scientific findings, but it’s not as simple as men being unable to hear women's voices entirely. There is some evidence that men and women process sounds differently due to variations in brain structure and function. For example, Hunter, et al (2002) found that men might use different brain regions than women when processing female voices. Women's voices are processed in the auditory part of the brain that processes complex sounds like music, which might make it more challenging for some men to interpret.

While it is not entirely accurate to say that men "can't hear" women's voices, some men may find it more challenging to hear and understand female voices, especially in noisy environments or as they age. This difficulty is often related to the higher pitch of women's voices and

differences in auditory processing. However, not all men have trouble hearing women, and individual experiences can vary widely.

2.2 Response to voice

Krizman, Bonacina & Kraus (2020) share their own and other research which determined that males and females differ in their subcortical evoked responses to sound, especially at an early age. Basically, young males are less sensitive to sounds than females and perceive a sound slightly later and quieter, due to their longer cochlea and neural tracts. Several studies found that girls in early development tend to show stronger auditory responses than boys (Jewett & Williston, 1971; Johnston, Curnick & Holme, 1980; Sininger & Cone-Wesson, 2004). These studies found better auditory brainstem response (ABR) for young girls, which is interpreted as an indicator of enhanced hearing sensitivity.

Krizman, Bonacina & Kraus explain that such hearing differences may affect the development of language and reading abilities in boys. Sax (2010) proposed single sex classrooms where the teacher's voice is amplified in the boy's room so they can hear as well as the girls. It is not clear whether these physiological differences specifically affect the response to higher pitched female voices.

Bohannon (2023) explains that over time women have developed finer hearing at the high frequencies such that "men's and women's ears respond differently to pitches … generally speaking, men's ears seem to be better tuned to lower pitches, while women's are more sensitive to higher pitches – usually those above 2 kilohertz." She explains that from an evolutionary perspective "Among primates, females and males have slightly different hearing … Because the males don't need to hear everything the females need to." For example, hominid females needed to be more attuned to their offspring's voice and calls for food or sounds of distress. In contrast, males became more attuned to other deeper male voices, most likely developed for communication over distance. Bohannon (2023) and Kramer (2023) highlight that this now means that males are better attuned to men's voices than to women's.

Bohannon (2023) also points out that "men are also far more likely to suffer common types of hearing loss than women, with those higher pitches the first to go … Middle-aged and older men also have more trouble following a conversation in a crowded soundscape especially if it involves a lot of higher-pitched sibilants. That also means they have difficulty hearing women's voices, with their characteristic high pitches, but retain the ability to hear men's voices and low, rumbly things. Because social power is typically assigned to men as they age, women's voices are literally not being heard by men in power." Watson (2019) concurs "The combination of higher pitch and breathiness can make women's voices more challenging to hear, especially for adults with age-related hearing loss, in which high-frequency sounds diminish first." Kramer (2023) concludes that, due to both the attuning of male voices and their earlier onset of higher-frequency hearing loss, when there are several men in a meeting it is very unlikely that they will all simultaneously hear what any female is saying.

Heath and colleagues (2014) interviewed managers at Fortune 500 organisations. Some of the male interviewees were aware that their female colleagues struggled to be heard, but (amongst other reasons) claimed it was partly due to them not speaking loudly enough. Watson (2019) also notes that "Some women aren't heard because they speak too softly. Yet when they try to

give their voice more power, they can be accused of sounding 'shrill', as Hillary Clinton often was during the 2016 presidential campaign." She also highlights that "lower-pitched voices give the impression of being louder, because they have more resonance" (Watson, 2019). Furthermore, "With women's voices being higher pitched, they don't carry as far" says Shah (quoted by Watson, 2019), magnifying the problem of women not being heard in larger meeting/board rooms. The relationship of pitch and loudness compounds the aforementioned problem of elderly males losing their high-frequency hearing sooner than females.

Research on higher-frequency hearing loss over distance has been explored in various studies, often focusing on how high-frequency sounds attenuate more rapidly than lower-frequency sounds, leading to greater difficulty in perceiving them at a distance. Multiple studies provide a solid foundation for understanding how higher frequencies are more prone to attenuation over distance, leading to reduced audibility compared to lower frequencies.

Beranek (1993) discussed the principles of sound propagation and attenuation, including how high-frequency sounds are absorbed more quickly by the air, leading to greater hearing loss over distance compared to lower frequencies. Harris (1966) investigated how environmental factors like humidity and temperature affect the absorption of sound, showing that high-frequency sounds are particularly susceptible to attenuation over distance. Munro & Lutman (2004). specifically examined how hearing sensitivity to high-frequency sounds decreases with distance, providing insights into the challenges of perceiving high-frequency sounds in various environments.

After conducting their interviews, Heath, Flyn & Holt (2014) in effect suggest that until male attitudes change, women need to control their emotions and voice frequency. They state "It is not so much *what* women say as *how* they say it. They need to keep an even tone, not shift to a higher pitch when under duress. They need to speak deliberately and avoid signalling frustration through sarcasm or curtness".

Fink (2017) explains that women are seldom cast for voiceover jobs because producers prefer deeper and more powerful male voices. This is possibly because both men and women tend to perceive deeper voices as smarter and more authoritative, and so trust male voices more. Indeed, Sumner & Samuel (2009) found that a man's voice is considered smarter and more reliable when compared to a woman's voice such that the female voice is considered less reliable. Likewise, Anderson & Klofstad (2012) found that both men and women prefer leaders, either male or female, who have lower-pitched voices. Across two experiments, Cheng et al (2016) found that both men and women with a deeper tone of voice, particularly at the start of a conversation, were considered more capable and dominant, resulting in a greater influence over others. They report "we found that when the voice in the recording goes down in pitch, people judge the person as wanting to be more influential, more powerful, more intimidating or more domineering. But they don't think the person is interested in gaining more respect."

This association between tone, authority and capability is one reason why females are ignored in meetings, discussed later. However, Fink highlights that this finding seems counter to the research that indicates the human brain is wired to prefer female voices, for example the reason female voices are used in GPS etc. James (2020) questions whether trusting a male voice more "is a result of social conditioning or an implication of biology" deducing that "it is clear that gender bias is deeply ingrained in the psyche", discussed later. Similarly, Watson

(2019) claims that "Biologically, the female voice is higher pitched. Culturally, traditional male dominance may play a role."

Evidence suggest that men use different parts of the brain to process male and female voices. For example, Sokhi and colleagues (2005) at the University of Sheffield monitored the brain activity of 12 men as they listened to voice recordings. They found that men process the sound of other men's voices in the left cerebral hemisphere, in a region associate with imagery. In contrast, the male subjects processed the sound of women's voices in a portion of the right hemisphere, associated with process processing complex sounds like music and melodies. The researchers proposed that women not only tend to have higher-pitched voices but more natural melody and prosody with their pitch and volume vary during speech.

In their study of two-party conversations, Cutler & Scott (1990) found that a higher voice pitch was judged as signalling a faster speech rate such that female rates of speech are systematically judged to be faster than they really are. Consequently, females are often perceived as speaking more even though they are not. The next section explores "talk time" in more detail.

Females have previously tried various voice techniques to help improve being heard in meetings. Famously, former Prime Minister Margaret Thatcher hired a voice coach to transform her voice to achieve a lower pitch and more authoritative tone (Watson, 2019; People, 2022). Astonishingly, after studying recordings of the voices of females in 1945 and 1993, Pemberton, McCormack & Russell (1998) report that women's voices have lowered over time. Having controlled for medical and socio-demographic differences, they conclude that the change is a learned affectation, due to social and cultural desire, rather than an (evolutionary) physiological change. However, as Watson (2019) states "The effort of trying to be heard shouldn't fall solely on women. However, much of the burden falls on listeners of both genders to be more aware of their own responses."

3 Talk time and interruptions

3.1 Proportion of talk time

Even though much research indicates that women talk less than men in meetings, women are often perceived as more talkative than men. It is quite possible that when males perceive women to be talking more, they stop listening. Furthermore, females may overestimate how much time they speak so then talk less, resulting in women not being heard. Tannen (2017) suggests that "One reason women tend to speak less at meetings … is that they don't want to come across as talking too much. It's a verbal analogue to taking up physical space." This self-silencing affects career progression, for example, Howell (2015) found that supervisors perceived a greater contribution to the organisation by those who speak up more. Borsellino argues that "women in leadership positions face negative consequences for being more talkative" (2024) and often considered abrasive for speaking their mind (2021). Fink (2017) considers the stereotype of the chatty female, potentially leading to silencing females, to be an example of "gender sidelining", i.e. minor accumulating behaviours in which females are continuously undermined. Likewise, Walltower (2023) refers to such meeting tactics as microaggressions.

Many early studies measured the time that males and females speak during unstructured conversations. In their review, Cutler & Scott (1990) note they all report that males speak more by talking for longer or taking more speaking turns (Argyle, Lalljee & Cook, 1968); Duncan & Fiske, 1977; Eakins & Eakins; 1976; Hilpert, Kramer & Clark, 1975; Markel, Long & Saine, 1976; Spender, 1979, 1980). Other researchers found that women participated more equally in unstructured, informal and social interactions, but talked less in formal business meetings (Edelsky, 1981; Tannen, 2017). As Cuter & Scott (1990) conclude "On balance, then, there is actually better evidence for men speaking more than women than vice versa. There is certainly no evidence to support the widespread folk belief that women are overwhelmingly the more garrulous sex."

Miller & Sutherland (2023) refer to several studies that "found that women tend to speak less than men in mixed-gender groups, are more likely than men to be interrupted, or both". Karpowitz, Mendelberg & Shaker (2012) studied six group discussions with different proportions of males to females present, and a total of 470 participants. They calculated an individual's "Proportion Talk", which is the number of seconds each individual spoke divided by the group's total number of seconds. They found that in most conditions the women's participation is under 75% of the men's, but women each talk for longer when surrounded only by other women. They also found that participants who held the floor for longer were considered more influential by other participants, so again talk time is important and women are disadvantaged if they speak less in meetings. Karpowitz, Mendelberg & Shaker (2012) summarise "Our first supportive finding is that women are often disadvantaged in speech participation, whereas men are never disadvantaged. Second, women participate less than their equal share when they are a minority and at equal rates when in a large majority (at least under majority rule). Third, women tend to do best in homogeneous groups. Fourth, female tokens participate less than male tokens. Fifth, women's influence gap shrinks as their numbers grow (under majority rule)."

In their own pivotal study, Cutler & Scott (1990) recorded excerpts from plays spoken by two people together, with 135 participants in total, and then asked listeners to judge the proportion

of time that the males and females were speaking. In same-sex dyads (male to male or female to female) the speakers were estimated to be talking a similar amount of time. In contrast, in the mixed-sex dialogues the females were consistently estimated to be talking more, by both male and female listeners, even though the number of words spoken was the same. The researchers believe this is partly because of a misjudgement of the rate of speaking, where speaking faster is associated with more words, and a higher pitch (i.e. female voice) is misjudged as a higher rate. Cutler & Scott (1990) conclude that "The tendency for higher pitch to be judged as signalling faster rate suggests that one might find female rates of speech to be systematically judged to be faster than they actually are." However, they also found that transcriptions of the dialogue assumed to be the female part were also considered to be longer, suggesting a social bias.

3.2 Interruptions during meetings

The proportion of talk time for women will also be affected by how often they are interrupted. A common complaint of working women is that they are continuously interrupted (Blundell, 2021; Borsellino, 2021, Kramer, 2023). Tomich (2021) uses the phrase "manturrupting" to describe when a woman is interrupted by a man. Blundell (2021) recaps "In mixed gender meetings, women are more likely to be talked over, interrupted and ignored than men … because we have all been conditioned to hear men and women differently. Traditional stereotyping dictates that men are the leaders and women are the supporters. And so when it comes to how we listen, we give men more airtime and women less so".

Hancock & Rubin (2014) asked pairs of men and women to discuss preselected topics for three minutes. They found that females were interrupted more on average by both males (2.1 times) and females (2.9 times) compared to males being interrupted by fellow males (1.8 times) or females (1 time). Heath and colleagues' (2014) survey of 270 female managers in Fortune 500 companies found that more than half reported having difficulty contributing to meetings firstly because they are ignored and spoken over, and secondly when talking they are continually interrupted and challenged. However, the males they interviewed often perceived interactions in mixed-gender meetings quite differently. Apparently, more than a third of male managers said their female colleagues often fail to state a strong point of view and half of them suggested that "women allow themselves to be interrupted, apologize repeatedly, and fail to back up opinions with evidence."

In a classic early study, Zimmerman & West (1975) analysed 31 two-part conversations and found that in mixed-sex dyads, 46 of the 48 (96%) interruptions observed were instigated by the man. In the same-sex dyads there was an approximate equal split in interruption between the two speakers. Additionally, they proposed that the interruptions by men are a form of power and dominance. Hirschman (1994) found that female single-gender dyads have higher frequencies of interruptions than other mixed-gender groups. Anderson & Leaper (1998) conducted a meta-analysis of 43 published studies and verified that women are significantly more likely to be interrupted, especially by males but also by females. Moreover, like Zimmerman & West, they too concluded that the primary reason men interrupt women is to reduce their talk time and assert dominance.

However, regarding dominance it is worth noting that personality may have more of a role to play. Biron et al. (2016) studied personality traits like dominance and agreeableness and

examined how these effects differ between men and women in the workplace. They found that dominant women in lower-status roles and agreeable men in higher-status roles experience more significant status inconsistency due to societal gender norms.

In a more recent major study by McKinsey (2023) some 27,000 employees were surveyed, across 276 participating organisations, on microaggressions including interruptions. They found that 22% of their female respondents, compared to 12% of men, considered themselves to be interrupted or spoken over more than others – so almost twice as many women to men and a fifth of women overall. The percentage of perceived interruptions increased for minority groups in the office, such as LGBTQ+ women (30%), those with disabilities (35%) and to some extent black women (24%).

Interruptions also occur in on-line meetings. A survey by Catalyst (2020) of 1,100 office workers found that a slightly higher proportion of women felt overlooked compared to men on videoconference calls during the pandemic. Reeves (2015) observed 29 different meetings and found that interruptions do indeed occur in on-line ones (21.9 per meeting on average) but significantly less so than in live meetings (32.4 on average) and panel discussions (34.6 on average). As per other research, she found that interruptions were made more by men (67.8%) than women (32.2%). Furthermore, the interrupting males disturbed women (71.8%) more than other men (28.2%), but also the interrupting women interjected other women (64.6%) more than they did men (35.4%).

Jacobi & Sag (2023) found that men also interrupted women at the Supreme Court. They found that over a period of 12 years, female justices being interrupted accounted for 32% of all interruptions. In contrast, female justices interrupting others accounted for only 4% of interruptions. Miller & Sutherland (2023) analysed 24,103 congressional hearing transcripts and found that there is "more than a 10% increase in the probability of interruption when the senator is a woman" and "in hearings that discuss women's issues, women are more than twice as likely to be interrupted."

In a study by Woods (1989) male subordinates interrupted higher status women more often than they interrupted more senior males, and higher status women interrupted the subordinate less often. These interruptions resulted in males gaining the floor 85% of the time compared with 52% for the women. Woods concludes that, in these interactions, gender-based interruption overrode status-based interruptions. However, in later sections the impact of status and unconscious bias is explored.

It is worth noting that interruptions should not be confused with active listening or hearing. Verbal utterances, such as "um hmm" and "yeah", often accompanied by non-verbal cues such as nodding, display continuing interest. This is quite different to using interruptions as a means of dominance, which has serious ramifications for equality and justice, beyond corporate meetings and the board room. Nonetheless, the higher number of interruptions for females along with the lower talk time, identified in the precious section, makes it increasingly difficult for women to be heard in the office such that their important contributions are less likely to be acted upon.

4 Language and understanding

4.1 Masculine language

Hancock & Rubin (2014), and to some extent Robb (2014), provide a comprehensive literature review of "gendered language", referring to words and syntax used differently by males and females. They recount previous research finding females use more: i) personal pronouns, like "I", "you", "we", ii) intensive adverbs, like "extremely", to express emotion, iii) hedges, such as "sort of", "probably", representing self-doubt, iv) tag questions, like adding "isn't it?", v) modal constructions, "could you do that please?", and vi) fillers such as "I mean" (Hirshman, 1994; Lakoff, 1975; Leaper & Ayres, 2007; McMillan et al, 1977; Mulac & Lundell, 1986). Tannen (1994) also found that women are more likely to preface statements with a disclaimer, speak at a lower volume and be succinct to reduce speaking time at meetings.

So, females appear to refer more to emotions, experiences and feelings, as expressed through higher use of personal pronouns and intensive adverbs. Beck (1978) found that females use less organised/structured sentences, although contradictory they can be more succinct. Leaper and Ayres' (2007) study of college students showed that overall male and female language is similar, but the males were more talkative and assertive whereas the women used more affiliative, i.e. affirmative or engaging, speech. They also found that both male and female speakers used significantly more dependent clauses, i.e. superfluous additions to a sentence, when speaking to a female. Similarly, Hancock & Rubin's (2014) own research found no differences in language between the genders per se, participants used more dependent clauses (and interrupted more) when speaking with a female, suggesting a gender bias.

Some time ago, Herring (1992) proposed there are two dominant discourse styles: adversarial and attenuated/personal. The adversarial is characterised by strong assertions, imperative verbs, impersonal and presupposed truths, exclusive first-person pronouns, rhetorical questions, sarcasm, self-promotion, representation of opponent's views as ridiculous. In contrast, the attenuated/personal style relates to attenuation hedges, qualifiers, apologies, suggestions, feelings/experiences, inclusive first-person pronouns and response-seeking questions. In her study of messages, Herring found that most women adopted the attenuated/ personal style, whereas men predominantly employed the adversarial style.

Williams & Best (1990) found adjectives related to agency are more likely to be associated with men whereas adjectives related to communality are more likely to be associated with women. Likewise, Karpowitz, Mendelberg & Shaker (2012) summarise that "In settings with many men, the interaction tends to take on more stereotypically masculine characteristics of individual assertion, agency, competition, and dominance; in contrast, in settings with many women, people tend to interact in a more stereotypically feminine style that emphasises cooperation, intimacy, and the inclusion of all participants." In her study of men and women managers interacting in groups, Case (1985, cited by Kendall & Tannen, 1997) characterised the style used primarily by women as a facilitative and personal style, whereas men use an assertive and authoritative style. Furthermore, she found the males tended to appeal to objectivity instead of personal experience and give direct commands, and they also tended to joke, swear, use slang and talk about competition more.

McClean et al (2018) distinguish between speaking promotively, i.e. expressing improvement-oriented ideas for change, versus prohibitively, i.e. concerns about potentially harmful work

practices. They found that found that speaking up promotively is positively correlated with status and leader emergence. However, the relationship is gender dependent, such that the men who spoke up promotively benefited more, in terms of status and leader emergence than women who spoke up promotively (as well as men who spoke prohibitively).

It is less clear whether men do not listen to or understand women due to physiological rather than social or learned differences, i.e. nature versus nurture. Fr example, it is worth noting that men do have higher instances of general hearing loss and tinnitus due to occurrences such as high levels of noise exposure associated with military service (Cave, Cornish & Chandler, 2007; Helfer et al, 2011; Yankaskas, 2013). Legato (2019) offers three possible physiological explanations:

- women have more nerve cells in the left half of the brain, associated with listening, processing language and speech,
- women have more dopamine, a neurotransmitter, in the areas of the brain related to language and memory, thus allowing more efficient connections,
- women have a greater degree of connectivity between the right and left hemispheres of the brain due to a larger corpus callosum.

In the unique study of Phillips et al (2000), men and women underwent functional magnetic resonance imaging while listening to a passage from a book. They found that "Women demonstrate a higher degree of bilateral language representation in temporal lobe regions than do men during passive listening", i.e. men listen with only one side of their brains, while women use both. Most of their male participant exclusively used the left hemisphere of their brain whereas the women also used the right temporal lobes, associated with non-language auditory functions such as creativity and spatial ability. The consequence of this study may be that men are missing some nuances of female speech or perhaps, conversely, it explains why female language is often less succinct than that of males.

In summary, there is some evidence to suggest that males and females speak differently. However, there is also some evidence to indicate that different language styles are not practiced by specific genders, but certain styles are distinctively associated with a specific gender. Either way, the above research implies that, to be more clearly heard women might adopt more masculine language. However, such a strategy is not as straight forward as it first appears. For example, Bland (2021) argues that "If women use more masculine turns of phrase, more direct language, shorter sentences, gesture, and if they combine that with a higher pitch, they will be labelled as difficult." Previously, Carli (1990) found that women who spoke more assertively were indeed perceived as more competent and knowledgeable, but nevertheless they influenced men less than other women and were considered less likeable. Similarly, in her book *Invisible Women*, Criado Perez (2019) explains that positions of power are still seen as unladylike, such that women are considered more assertive (or "bossy") when they say the same things as men in a male dominant environment.

Fink (2019) considers the predilection for masculine language in meetings to be another form of gender sidelining. She reports of the careful balance women require when speaking in a professional setting, noting they are "either barely heard or she's judged as too aggressive." Similarly, Sandberg & Grant (2015) conclude that "When a woman speaks in a professional

setting, she walks a tightrope. Either she's barely heard or she's judged as too aggressive. When a man says virtually the same thing, heads nod in appreciation for his fine idea." Lakoff (1990) refers to women facing a "double bind" such that "When a woman is placed in a position in which being assertive and forceful is necessary, she is faced with a paradox; she can be a good woman but a bad executive or professional, or vice versa. To do both is impossible." Likewise, Ballakrishnen, Fielding-Singh and Magliozzi (2018) use the term "double bind" and found women prefer "intentional visibility" rather than risk more assertive behaviour backfiring.

4.2 Rephrasing and repeating

Borsellino (2024) asks women if they have mentioned an idea only to be ignored then have someone else say it later and get credit for it. Bland (2021) cites Government lobbyist Judith Howell as saying "It's incredibly male-dominated, and I'd find that if I said something it would get picked up by someone else in the meeting as if they'd said it. So, I'd have to push a bit harder, be a bit more strident, literally interrupt and – not shout, but raise my voice."

In McKinsey's (2023) survey of 27,000 employees, they found that 1.5 times more women (21%) compared to men (14%) thought "others get credit for their ideas", and the difference increases to 2.3 times for women with disabilities (32%). McKinsey considers the act of a man repeating a women's idea to be a form of microaggression, but Fink (2019) coined it as "bropriation" or "bropriating". She explains that women's ideas and contributions often are overlooked, ignored or misappropriated, and if their ideas are continuously stolen then women will stop sharing them. Likewise, in a follow up to her survey, Reeves (2015) considers "Manterpretation" to be a man misinterpreting what a woman says, and "manimisation" to be when a man minimises what a woman says which, on later reflection by other men, leads to "bropriation".

In Heath and colleagues (2014) survey of 270 female managers, with follow-up interviews, many women state they have trouble articulating their views mostly due to timing rather than their ability to marshal facts, stick to a point, or control their feelings. Ford (cited by Heath, Fly & Holt) explains that "Men have a way to neatly repackage ideas … They restate and amplify what you just said." Likewise, Tannen (1994) found that some men are more likely to speak in ways that receive attention and so gain more credit for their contributions.

While "Mansplainning" usually refers to men explaining things to women in a simplified and condescending way, perhaps men need to simplify things for themselves and their male colleagues. The art of rephrasing in a less complex and succinct way may be part of the thought and assimilation process. Nonetheless, credit should be given to the originator of the idea, especially if they are women who are being ignored and marginalised.

5 Being ignored and unconscious bias

5.1 Biased stereotypes

Even when women are heard, listened to and understood, the final hurdle for them may be that they are ignored – what they say in the workplace is not acknowledged. Research indicates that this may be partly to unconscious bias, i.e. institutional prejudice and stereotyping, and the office traditionally being a male-dominated arena where women have historically had lower status. Kendall & Tannen (1997) begin their discourse on gender and language in the workplace with "Interaction in the workplace is characterised by a unique constellation of constraints: an institutional structure in which individuals are hierarchically ranked; a history of greater male participation in most work settings, especially at the higher ranking levels; a still existing, though recently permeated, pattern of participation along gender lines …" Kramer (2023) argues that "Many men unconsciously hold stereotypes that lead them to belittle women's contributions." and Beard (2017) points out that these prejudices have been deeply ingrained in our culture and language over the millennia of human history. Patterson (2019) notes that unconscious bias runs from the top to bottom in almost every organisation around the world, but she also claims that the underlying problem is that when women speak, men are bored.

Mark Huckvale (quoted by Bland, 2021) acknowledges the nature versus nurture elements of why women are not heard – "Nature is a part of it – if we take voice pitch as an analogue for this, it can be affected by body size, hormones, gender differentiation … But that's a small component compared to the nurture side of it. It varies across cultures, and people's positions within society, and whether we're expected to be submissive or dominant." For example, Farh et al (2020) propose that minority (token) females who speak out often have their actions scrutinised through the lens of stereotypes, mainly because their "lower status in society's sex hierarchy reduces their power to defy a male majority's assertions of gender stereotypes" and "gender stereotypes likely guide the male majority's initial perceptions of, and interactions with, the token female."

Following on from her research, Elizebeth McClean (cited by Alexander, 2017) remarked that women going unheard in the office, and acceptable assertive behaviour, relates to stereotypes and perceived legitimacy – "It comes down to the legitimacy of men versus women in the workplace … It's a cultural thing". Similarly, Borsellino (2024) argues that "Society primes us to think that white men's presence in an office is the default because, for a long time, it was … So the biases and prejudices in favor of white men and against women and minorities are baked into our work culture". Criado Perez (2019) recalls that, in sociology, "naïve realism" or "projection bias" is when people think their own way of doing things is the norm. Therefore, in a male-dominated workplace the bias towards what is considered typical (masculine) behaviour is magnified and thus perpetuated further as normal behaviour. She later warns that the modern trend for an egalitarian workplace, with relaxed hierarchy, doesn't always work as the default "the unspoken, implicit, profoundly non-egalitarian structure reasserts itself, with white men at the top".

Heilman's (2012) literature review on broader workplace stereotypes highlights "how descriptive gender stereotypes promote gender bias because of the negative performance expectations that result from the perception that there is a poor fit between what women are like and the attributes believed necessary for successful performance in male gender-typed positions and roles." They conclude that "Conceptions of men and women not only are different, but they tend

to be oppositional, with women seen as lacking what is thought to be most prevalent in men, and men seen as lacking what is most prevalent in women." Regarding women being ignored at work, Farh et al (2020) believe it is mostly due to two factors. Firstly, because "gender stereotypes imply that women are and should be communal, conforming, nurturing, and self-effacing" then any males expecting females to conform to such preexisting generalisations would find any alternative behaviour, such as speaking out, as incongruent. Consequently, they conclude, "women may incur penalties for voicing their suggestions, or have those suggestions negatively evaluated by the male majority." Secondly, they propose that "the hierarchical dimension of gender stereotypes produces expectations that women are less competent than men which in turn may lead male counterparts to ignore or dismiss women's suggestions". This affects reward and promotion, for example McClean concludes that "the strength of the relationships between voice, status, and leader emergence is different for men versus women."

Karpowitz, Mendelberg & Shaker (2012) report "We find a substantial gender gap in voice and authority, but as hypothesised, it disappears under unanimous rule and few women, or under majority rule and many women." So, democratic voting, unanimous rule helps minority (token) women participants.

Furthermore, it is not just women who are ignored but any subordinate, or minority, within an established group. According to Lepchitz (2012, quoted by Fink, 2017), a "subordinate's voice is less heard because they are trying to communicate experiences that are unimportant to the dominant group". Of course, in the board room or at leadership meetings, women are still likely to be the minority group. Indeed, Howell et al (2015) observe that "Women are generally perceived as having lower status than men. In the U.S., women are less likely to occupy top management positions." In their own study of 89 different credit union units, Howell et al found that supervisors gave more credit to those with higher assigned status in the organisation, dependent on socio-demographic variables such as gender, ethnicity and working hours. Furthermore, they report that "even when certain groups of lower-status employees speak up more, they cannot compensate for the negative effect of their demographic membership on voice recognition by their boss."

The research by McKinsey (2023), reported in a previous section, shows that women from minority groups, such LGBTQ+ or those with disabilities, are more likely to be interrupted and it is also more likely that they will be ignored. In her review of females in classrooms, Annas (1987) found that "the sexism encoded into the structure of the language and acted out in speech situations finally has less to do with gender per se than it does with who has the power to name, to speak, and to expect that one's words will be heard and valued."

5.2 Apportioned talk time

Cutler & Scott (1990) referring to earlier research verifying that women talk much less than they are perceived to talk (Kramer, 1975 & Spender, 1980) suggest that "women are undervalued in society, and as a consequence women's speech is undervalued – female contributions to the conversation are overestimated because they are held to have gone on 'too long' relative to what female speakers are held to deserve." Blundell (2021) surmises that the consequence of bias, with traditional stereotyping dictating that men are the leaders and women are the supporters, is that men are instinctively given more talk time ("airtime") than women.

Farh et al (2020) report that "A long history of gender diversity research would suggest that, due to tokenism, stereotype threat, and gender role expectations of women, female members may not speak up". Similarly, referring to "bropriation" Sandberg & Grant (2015) claim "When a man says virtually the same thing, heads nod in appreciation for his fine idea. As a result, women often decide that saying less is more." It therefore seems that women may "self-silence", so men are allowed even more airtime.

The number of women on the board of organisations is gradually increasing, but nonetheless, despite an overwhelming aspiration to join the leadership teams, they are still underrepresented (McKinsey, 2020, 2023). Farh et al (2020) clearly recognise that token female voices are often ignored or drowned out, but they did find that female ideas were listened to and acted upon if "team leaders possessed more favourable beliefs about women's capabilities". While this is a positive finding, unfortunately, it also supports the more general verdict of unconscious bias.

Callihan (2016) observed that, despite the struggles of women at work, they are often hostile to their female colleagues. She explains that it may be because "there is a conflict between who women naturally are and the type of person they think the male-dominated workplace expects them to be … competitive" such that "Another woman in the workplace is a unique competitor."

6 Resolving the problem

Many of the research papers and published articles provide guidance on how women can improve their chances of being heard in the workplace. Most of the guidance clearly applies to females, but they are not the source of the problem so their male colleagues must also be accountable for ensuring women are heard. Apparently, Google realised they had an issue with gender bias so initially established workshops to encourage women to be more like men before releasing their mistake (Criado Perez, 2019). Tessier (2015) recounts that she heard a female colleague say with pride "I'm treated like one of the boys here" but Tessier insists "I don't want to be 'like a man'. I want to be a woman, working in a male-dominated workplace, free to speak my mind about issues that are important to me." Criado Perez (2019) agrees insisting "male behaviours should not be perceived as the gender-neutral human default." As stated by Borsellino (2024) "It's not your fault that your voice isn't being heard at work. It isn't the responsibility of marginalized people to drive societal change or fix the biases of groups with power."

The collated guidance is grouped according to the four snowballing hurdles that women need to overcome, explained at the beginning of this report.

6.1 Women are not physically heard

There are three core barriers to women not being physically heard:

- the volume and pitch of women's voice,
- the hearing ability of colleagues,
- the acoustic properties of the meeting room.

To counter the first barrier, women can undergo voice training. Borsellino (2021, 2024) suggests that the right volume, tone and pacing helps capture attention. Famously, former British Prime Minister Margaret Thatcher worked with a voice coach on lowering her pitch, to sound more authoritative. However, voice coach Hirsch (cited by Watson, 2019) argues "I don't think lowering pitch is a healthy or helpful practice, because it's not authentic or honest, and because it's difficult to sustain and project,". She continues, that deliberately lowering the pitch could be counterproductive and possibly harmful, whereas teaching women to slow down, enunciate their words and use breathing techniques, to help maintain volume, may be more useful. Yates (2016) reported that those whose voices went down in pitch early on in conversation were more likely to be seen as influential, so perhaps lower the voice initially.

Back in 1953, psychologist Colin Cherry documented the "cocktail party effect". This is when a person can tune into one voice from many conversations going on in a noisy room, and more specifically hear their name being called out. So, to attract the attention of meeting participants, especially the chair, speakers should start a statement with the name of the person being addressed or responded to.

Resolving the issue of a colleague's hearing is more difficult. Speaking louder leads to stress on the vocal cords leading to voice fatigue, a recurring problem among some teachers. Sitting closer to key participants, like the chair, may help. Microphones could be used for amplification,

but they are not commonly used in meeting rooms (unless online). Additionally, women with higher pitched voices speaking closer or at a higher volume do not necessarily compensate for age-related high-frequency hearing loss.

Improved speech clarity becomes and important factor and is achieved by minimizing distortions and ensuring that sound travels cleanly from the speaker to the listener, particularly important in conference rooms. As higher pitched voices, or more specifically high frequencies, degrade over distance the design of the meeting room may help mitigate not hearing some speakers. For example, large boardroom tables in large boardrooms with highly reflective surfaces will not help the situation. People sitting opposite each other, maybe at a round table, are more likely to be heard than those at opposite ends of a rectangular table.

In addition, the use of acoustic materials on walls, ceilings, floors, and furniture prevents sound from bouncing around and causing distortion in larger spaces such as the open plan. By absorbing excess sound, auditory fatigue is reduced, making it easier to focus on conversations and tasks without being overwhelmed by background noise. Creating distinct zones for different activities, including meeting rooms, quiet areas, and open-plan spaces controls how sound propagates. This helps to contain conversations within their intended areas and manage noise from office equipment, HVAC systems, and external sources. By reducing distracting noise, concentration improves, and conversation engagement is enhanced.

6.2 Women are physically heard but not listened to

If women are being ignored, or bropriated, then one core tactic is "amplification". This was a technique used by senior aides to President Obama where the female staff repeated, credited and endorsed each other's ideas (Fink, 2017; Spencer, 2020). So, build strategic relationships and join forces with other women (Borsellino, 2021, 2024).

There are other techniques, that women can adopt individually:

- act confident, for example look up and meet the eyes of fellow participants, sit with a straight back, and make formal introductions with job titles (Chessman, 2016),
- as with being physically heard, speakers should consider where they sit in a room, as sitting at the head of the table next to the chair, rather than at the edges, places them at the centre of action and they are more likely to be listed to (Chessman, 206),
- let go of being liked and don't hesitate to challenge and disagree (Borsellino, 2021, 2024),
- when interrupted, calmly explain that is not acceptable and continue speaking (Borsellino, 2021, Chessman, 2016),
- however, avoid interrupting as it is viewed less favourably when women do it (Criado Perez, 2019),
- seek places outside of work to build confidence and practice Borsellino (2021, 2024).

In contrast, educating men to listen and not interrupt should also be offered. Heath, Flyn & Holt (2014) note that "Women can certainly do a better job of speaking up in meetings, but bosses can also help ensure that women's voices are heard." Farh et al (2020) propose that members and managers of female-minority teams need to pay more attention to them. A simple solution

is training on how to chair meetings to encourage equal participation, so everyone has their say, and crediting women's ideas, is also required (Ford, 2023). Tomich (2015) suggests creating a meeting code of conduct and calling out interrupters. Television drama director, Glen Mazarra, noticed female writers were continuously interrupted so introduced a "no interrupting when pitching ideas rule" (Criado Perez, 2019; Sandberg & Grant, 2015).

6.3 Women are physically heard and listened to but not understood

Section 4 highlighted why women are often misunderstood, and action can be taken to mitigate most of those reasons.

A key recommendation is to plan what is going to be said, and when, in advance. Nola Beldegreen, a communications professional (cited by Alexander, 2017), recommends taking time to consider the art of how to say things and suggests speaking with "vocal conviction" and organising statements well in advance of meetings. Likewise, Borsellino (2021, 2024) suggests planning in advance and taking notes during meetings to help organise thoughts. Chessman (2016) proposes advanced research, collating key facts, and then engaging meeting participants in a constructive and fact-based way that makes speech more persuasive. It is better to speak logically, not emotionally, and make statements rather than ask questions (RADA, 2012).

Furthermore, men tend to understand women's speech more easily when they use fewer personal pronouns (Miller, 2023), eliminate hedges and filler words (Borsellino, 2021, 2024) and do not repeatedly apologise (Chessman, 2016). Consequently, Heath (2014) coaches women to use "muscular" language, which is non-generic language that is more specific and distinctive. For example, say "that's robust data that supports my argument that …" rather than "that's interesting data." These "muscular" words are more active and precise indicating confidence and authority.

Chessman (2016) also implores women to not let the fear of being wrong stop them from speaking up, and for women to speak their mind and stop self-editing or self-silencing. While, that is sound advice, in practice the male-favoured workplace culture probably makes it quite difficult to do.

6.4 Women are heard, listened to and understood but not acknowledged

The final hurdle to women being heard in the workplace is mostly due to unconscious bias resulting from decades of a male-dominated senior leadership team in most organisations. The institutionalised lack of acknowledgement and acting upon women's contributions at work goes way beyond acoustics and training, relating more to organisational culture and structure, and legacy society stereotypes.

According to McKinsey (2020, 2023) and others, fewer women occupy senior leadership roles so are likely to be in a minority in the boardroom and at other important decision-making meetings. Sandberg & Grant (2015) conclude "The long-term solution to the double bind of speaking while female is to increase the number of women in leadership roles … As more women enter the upper echelons of organizations, people become more accustomed to women's contributing and leading." As Heath et al (2014) point out "leaders need to invite more women to the table. When a woman walks into a meeting and finds that only two of the 15 people

present are women, it takes a toll. Peer support and role models make a difference." Equal opportunities and addressing the balance of the ratio of male to female representation in meetings will expedite women having a voice in the workplace. Ford (2023) suggests collating data equality, diversity and inclusion (EDI) data to track progress. For example, demographic data of job applicants and successful team members.

The gender gap in voice diminishes when women represent a majority, or homogenous female groups (Karpowitz, Mendelberg & Shaker, 2014). When women are a minority, introduce unanimous decision-making (voting) rather than majority voting to give women, and other minority groups, a greater voice (Karpowitz, Mendelberg & Shaker, 2014; Miller & Sutherland, 2023).

Havekost (2020) proposes facilitating better relationships between male and female co-workers, creating working environments that foster support, better (male) listening, an improved balance of idea-sharing and giving credit where it is due. McKinsey (2023) urges that organisations take steps to end microaggressions and gender sidelining, such as behaviours in which females are continuously undermined. They propose i) making it clear that microaggressions are not acceptable, ii) teaching employees to avoid and challenge microaggressions, and iii) creating a culture where it's normal to surface microaggressions. Mensik (2024) has observed increasing micro-feminism behaviours, such as women interrupting men back but not fellow women, but it is not clear whether it is a successful strategy.

Havekost (2020) propose a voiceless and anonymous feedback system might also be highly effective, and Heath et al (2014) recommend companies fix broken feedback mechanisms. Sandberg & Grant (2015) suggests a short-term solution in which "Organizations can increase women's contributions by adopting practices that focus less on the speaker and more on the idea. For example, in innovation tournaments, employees submit suggestions and solutions to problems anonymously."

As with reducing interruptions, a less complicated starting point is better chairing and facilitation of meetings, to ensure that all meeting participants can voice they opinions, be listened to and acknowledged for their input. Finally, Heath and colleagues (2014) stress the importance of networking. They found that "men are more likely to spend time connecting with one another to test their ideas and garner support. They arrive at meetings early in order to get a good seat and chat with colleagues, and they stay afterwards to close off the discussion and talk about other issues on their minds." They recommend that women join these pre-meetings where the "real work" happens.

7 Next steps

This literature review clearly identifies gender differences in voice and hearing and offers some initial thoughts on how women can be better heard in the workplace. We acknowledge that many of the studies were conducted some time ago and focus on traditional differences between females and males. We also acknowledge that there are many other confounding factors, beyond the scope of this literature review, that effect women being heard in the workplace and need further exploration, including the impact of gender, race, culture, socioeconomic status, personality and virtual meetings.

The next step is to conduct original research, in the form of interviews and an online survey, to better understand the problem in modern post-pandemic offices. In particular, the research will explore how being heard in the workplace relates to office design, organisational culture and any unconscious bias.

Ultimately, the research will inform guidance and training to ensure better communication between all people in the workplace.

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