# Working 9–5: Causal Relationships Between Singers' "Day Jobs" and Their Performance Work, With Implications for Vocal Health

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**Summary: Objectives.** It is acknowledged generally that professional contemporary commercial music (CCM) singers engage in supplementary employment ("the day job") to achieve and maintain a reliable living wage. In this paper, consideration is given to the impact of such nonperformance employment on CCM's sustainable vocal health.

**Methods.** Collected data from a survey of 102 professional contemporary gig singers were analysed using descriptive statistical procedures from the *Statistical Package for the Social Sciences*. Although these data provided descriptions of the personal characteristics of individuals in the sample, the inclusion of open format questions encouraged participants to report details of their "lived" experience. Additionally, a meta-analysis of a range of associated literature was undertaken.

**Results.** Sixty-five participants (N = 102) reported that in addition to their heavy performance voice use, they were employed in "other" work (the "day job") where their speaking voice loads were high. In responding to open-ended questions, many proffered written comments that were unprompted. The collected data from this element of the research study are reported here.

**Conclusions.** We propose that at least some causal factors of singers' reported voice problems may lie in the misuse or overuse of their everyday speaking voice (as demanded by their "day job") rather than a misuse of their singing voice. These findings have practical application to all whose concern is care for the vocal or emotional health and performance longevity of professional singers.

**Key Words:** occupational voice users–performers' voice–professional contemporary vocalists–singing voice–singers' vocal health.

#### INTRODUCTION

To examine causal relationships between voice use in singing performance and the quotidian labour that is required of professional singers to sustain a living wage, this paper draws on a range of peer-reviewed literature sourced through relevant online music and health academic databases relating to singing voice pedagogy, contemporary commercial music (CCM) singers, music theatre singers/actors, and occupational vocal health (across a range of employment). Specific data from a doctoral study conducted with a population (N = 102) of professional contemporary gig singers (PCGS) are also reported. It is this body of research, together with related, cross-field reporting of heavy voice load occupations (eg, nursing, teaching, therapists, call centre workers, etc), that forms the basis for this report.

It has been estimated that a third of all jobs worldwide depend upon a worker using his or her voice<sup>2,3</sup> as his or her primary tool of trade, and that in some professions a reliance upon a functional and effective voice is foundational to the voice user's career longevity; this is particularly so for singers and singer/actors whose voice is their singular tool of trade. We were interested to know to what degree singers and singer/actors used their speak-

ing voice in addition to their heavy voice load, singing performance work.

A literature search confirmed our emic knowledge that the unpredictable nature of performing arts as a career forces many artists into an ancillary or "day" job to enable day-to-day financial survival. For example, in an Australian study, Bennett and Bridgstock<sup>4</sup> reported that "... a significant proportion of performing artists settle in 'embedded' employment, engaging in performing arts work that is outside the arts and creative sectors entirely." (p.264) This finding appears to reflect a global trend. While investigating the phenomenon of music clusters in the United States, Florida, Mellander, and Stolarick<sup>5</sup> found that "For self-employed musicians, the location needs to offer enough venue places and performing opportunities. For those not yet able to live off their music, the location also needs to offer complementary jobs" (pp. 788-789). In a previous article, Florida and Mellander<sup>6</sup> had described the type of "complementary jobs" available to musicians as ". . . lower-skill, lower intensity 'day' jobs in the service sector of the economy" (p. 4). This finding is an important factor in terms of measuring the impact of nonperformance-based work on singers' overall voice loads.

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# General epidemiological studies and reviews

Some researchers have reviewed whole populations of workers and reported on the aetiology and incidence of occupational voice disorders within that broad community.<sup>7-12</sup> In two large studies conducted in the United States<sup>13</sup> and Sweden,<sup>7</sup> researchers attempted to establish the relative frequency of attendance at voice clinics of various occupational voice users, comparing these groups with nonspecific voice users in the general population. Other papers

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have presented reviews of vocal risk factors relating to specific occupations.<sup>2,13–18</sup> For example, Williams<sup>18</sup> referred to an important consequence of voice problems for singers and teachers (identified as the two "most at-risk" groups), suggesting that "voice impairment can be employment threatening, as voice use is a critical component of their job" (p. 457). In his review of the literature, Williams<sup>18</sup> combined the results from both the Titze et al<sup>13</sup> and Fritzell<sup>7</sup> studies and found that although singers in the United States and Sweden accounted for only 0.02% of the population of professional voice users in those countries, they accounted for 11.5% of voice clinic attendees. Although the highest incidence of occupational voice disorders is reported for teachers, 12,17-19 it is interesting to note that singers are reported consistently as the occupational group "at greatest risk" of such disorders and that they have a proportionally high representation in samples of voice clinic attendees.

One explanation for this anomaly has been that performance artists have a heightened perception of changes in their singing voice.<sup>20</sup> The researchers suggested that although singers might be expected to have fewer voice problems because of their vocal training, many do not apply their good singing techniques to speaking. They concluded that a combination of vocally abusive speech habits in addition to hours of strenuous singing could actually make a singer more at risk of vocal attrition than the nonsinger.<sup>20</sup> Similarly, Aronson and Bless<sup>21</sup> offered the following observation: "Many voice problems in singers are the result of non-musical activities" (p. 273). He further suggested that to assess vocal health risk for singers, it was important to address "overall" voice use behaviours. To this end, recent work by Gaskill, Cowgill, Tinter, and Many, 22,23 using vocal dosimetry technology, has produced results that support anecdotal concerns relating to the diverse range of stressors incurring high vocal loads for performers outside their vocal performance area.

The opinions reported here coalesce with our emic view that any review of singers' vocal health issues should address both speaking and singing voice loads, especially where high voice quality is demanded in both performance and ancillary work; that is, speech-oriented "day jobs" and associated nonperformance work-based environments should be recognized and considered in terms of the impact on sustainable vocal health and performance longevity for the group.

In reviewing work-related risk factors for professional voice users, Södersten and Lindhe<sup>16</sup> created a practical classification for fields of voice-oriented employment as follows:

- Instructors and teachers: including preschool and kindergarten teachers, school teachers, aerobics instructors, and dance teachers
- (2) Performers: including singers, actors, voiceover artists, radio and TV journalists, and interpreters
- (3) Persuasive voice users: including clergy (ministers, priests, pastors, rabbis, mullahs), lawyers, politicians, salespeople (including telemarketers in call centres), and auctioneers
- (4) Service voice users: including customer service assistants, psychologists, counsellors, and telephonists (including switchboard operators)

(5) Emergency: including air traffic controllers, police, fire department, emergency medical technicians, and ambulance officers

Although all the listed professions<sup>16</sup> are voice-based, the intensity of work-related voice demand varies enormously, and voice load and voice quality requirements differ widely.<sup>2</sup> For example, classroom teachers may not need superb voice quality, but, their voice load is very high. For radio and TV journalists, vocal excellence is paramount; however, their overall voice workloads may not be as high. Performance-based voice loads for singers and singer/actors are especially intense as practitioners are expected to move seamlessly from spoken voice to singing voice, balancing the demands of style excellence while incorporating a wide range of timbral colours and relevant style-driven vocal effects. To further add to this burden, recent research suggests that in addition to the voice excellence demands of performance, singers and singer/actors are engaged commonly in a range of voice-oriented, heavy speech load "day jobs" as components of their portfolio careers.

#### Musicians' portfolio careers

The Cambridge Business English Dictionary<sup>24</sup> offers two definitions for portfolio career:

- the fact of having several part-time jobs at once, rather than one full-time job
- the fact of having a series of jobs, each for a short time, rather than one job for a long time

In discussions of musicians' work patterns, researchers<sup>25,26</sup> have reported that such "portfolio careers" are the norm for graduates of music study programmes. Importantly for this paper, they propose that approximately half of the jobs within a musician's portfolio are embedded outside the music sector entirely—"in jobs like music production and dissemination utilising the online realm (cf Draper 2008<sup>27</sup>), music education (cf Mills 2004<sup>28</sup>), or social work in the not-for-profit sector (cf Bartleet 2008<sup>29</sup>)." These findings coalesce with our emic knowledge of the field where professional CCM singers commonly supplement their performance income through "day jobs" with many gravitating towards speech-oriented work (eg, teaching, hospitality, retail).<sup>30</sup>

### Professional singer/actors

We have included reports of singer/actors in this discussion as many "modern book" music theatre scores incorporate a broad range of CCM vocal styles (eg, pop, rock, gospel) and style effects (melismatic runs, slides, slurs, growls, shrieks, screams, and assorted noises) that inform and define the CCM repertoire (LoVetri and Weekly<sup>31</sup>, Edwin<sup>32</sup>, and Wilson<sup>33</sup>).

In terms of the literature of singing voice, music theatre singer/actors ("triple threats") have been the focus of substantial research, yet a recent study<sup>34</sup> pointed to a lack of empirical data with regard to music theatre singers' risk of voice disorders:

"... music theatre singers may be a potentially higher risk group [than the general population] for the development of specific types of voice disorders, such as overuse injuries, although there is a surprising lack of controlled studies investigating this premise" (p. 390.e31).<sup>34</sup>

Phyland et al further reported a need for "...a concise clinical tool to assess singers' perceptions of the current status of their singing voice...not predicated upon vocal pathologies (p. 454).<sup>35</sup> For the most part, this research examined the vocal load imposed by performance requirements only, with little attention given to vocally taxing factors (spoken or sung) that fell outside the ambit of the major paid performance employment of this group of music theatre professionals.

In addition to the demand for vocal excellence and style authenticity across a wide range of repertoire (eg, classical legit, contemporary, legit pop/rock), music theatre singer/actors are expected to move seamlessly from singing to speech (dialogue) within a single performance. When factored alongside the frequency and duration of performances, the demand for flexibility and excellence in both singing and spoken voice has implications for singer/actors' continued vocal health. In a study of actors and singers as distinct groups, Kitch and Oates<sup>36</sup> found that,

"... eighty percent of the subjects in both groups had experienced moderate to very severe problems with their speaking voices, and 50% of the actors and 70% of the singers had experienced similar problems with their professional voices" (p. 209).

Kitch and Oates<sup>36</sup> conclude that "the frequency of vocal fatigue reports in these subjects has been highlighted and concern raised about the possibility of vocal fatigue being a common experience of actors and singers" (p. 213). The findings of high levels of vocal fatigue for this group of performers were focused solely on participants' self-reports of their performance-based voice use (singing or speaking voice) and did not consider any possible contributing factors from voice use outside of performance.

In terms of a whole-picture view of singer/actor voice loads, it is important to consider not only the performance work patterns for music theatre professionals but also voice loads outside actual performances. Commonly, performance schedules run as eight shows a week, scheduled as one performance on Tuesday, two on Wednesday, one on Thursday, one on Friday, two on Saturday, and one on Sunday. Monday is taken as a day off, with a requirement of at least a 44-hour gap between the end of the Sunday show and the performers' call for the Tuesday show. In addition to this heavy performance schedule, dance calls and vocal rehearsals are common occurrences during the run of a show, as are publicity or advertising appearances (eg, radio, TV interview and corporate performances). All of these related activities involve voice use (either speaking or singing or both) and are extraneous to the singer/actor's primary performance voice use.

In an examination of the apparent disconnect between current practices in spoken voice and singing voice training, Wilson<sup>37</sup> observed that although acting performance training offered techniques for an extreme range of safe spoken voice usage, singing voice training was an infrequent addition to the curriculum, and

conversely singers were rarely trained in optimal speaking voice techniques. Wilson suggested that lack of integrated voice training across both sung and spoken techniques may be a significant factor in musical theatre performers' failure to manage voice load across all their employment areas.<sup>37</sup>

## Singer/actors and "day jobs"

Given the intensity of their performance work, it would appear unlikely that professional music theatre performers would work outside of their "show" hours. However, both emic knowledge and anecdotal evidence indicate otherwise. Both principals and ensemble members have reported freelance teaching or performing while in the run of a show, most usually without the knowledge of the show's management. Again, these findings highlight the lacuna in the literature of professional singing voice with regard to the impact of nonperformance-based, spoken voice "day jobs" on professional functioning of music theatre singer/actors. In addition, factors such as the instability of employment and low pay structure that necessitate *full-time* employed, 8-show per week music theatre singers to undertake extra work outside of the confines of the show to supplement their income are exposed.

# Professional contemporary "gig" singers

The work conditions and industry expectations experienced by music theatre singer/actors are similar to those of singers who are the backbone of the modern entertainment industry—professional contemporary gig singers (PCGS).¹ This professional voice user group has high public visibility, "gigging" wherever music is used for entertainment (eg, in restaurants, at corporate events and conference dinners, at social functions such as weddings and parties, in bars and pubs, at outdoor food and music festivals³8), yet there is little empirical research that describes them as a population. To date, only two studies describe the "lived experience" of professional CCM singers.¹39

In a small study of nine professional band singers in "live performance" environments in Louisiana (USA), Lobdell<sup>39</sup> interviewed singers representing six different singing style groups—"other than opera/classical." Within the collected data, she found that whereas some of her participants made their living "solely as musicians," others supplemented their performance income with "day jobs" (p. 8).

Similarly, in a larger study of 102 PCGS in Australia, the singer participants were professional (they performed for pay), they reported singing a range of contemporary commercial styles, and they typically were working in a band environment. The sample size (N = 102) has possible limitations for extrapolation to PCGS as a global population; however, the issues raised in Bartlett's study may reflect the situation of PCGS elsewhere in the world; that is, the industry contexts in which PCGS operate in Australia appear to be similar to those in other parts of the world (particularly the United States and the United Kingdom). When viewed against the few published, small sample studies of CCM singers in the literature, Bartlett's work remains the largest study of PCGS to date, and the collected data offer a window into the work—life and lifestyles of PCGS as a professional voice user group.

#### **METHODS**

The quantitative data were analysed using descriptive statistical procedures from the *Statistical Package for the Social Sciences* (*SPSS*). These data provided descriptions of the personal characteristics of individuals in the sample, and identified significant associations between aspects of their professional histories and their voice problems. More specifically, descriptive analyses provided frequencies, range, mean, and standard deviation (SD) for data pertaining to the impact of "other than performance" employment on PCGS' overall voice load. Exploratory factor analysis was used to identify patterns of responses in variables.

Overall, qualitative data were collected from 26 points of interest across the 28 survey items. Nine of these were added by participants as expansionary comments in addition to the provision for comment that had been included in 17 of the survey items. This element of design attempted to capture participants' extended views or commentary on issues beyond what had been indicated in their collective responses to closed-choice items. Participants offered such expansionary comments for Section 17 "Other work" of the survey; some of these are reported later in this paper.

#### A profile of PCGS

Much of what we know concerning professional CCM singers' performance lives has been anecdotal or opinion-based commentary, often from observers outside the field. The participants (N = 102) in Bartlett's research<sup>1</sup> belonged to a particular group of professional CCM singers known in the music industry as "gig" singers. They identified themselves as "professional" against a criterion of "6 hours or more" of gig performances or studio session work per week. All reported regular performances of a broad range of CCM styles in local, national, and sometimes international contexts, working typically in band environments, employing a speech-based, lower register vocal production (ie, a thyroarytenoid dominant muscular action taken past the second passaggio). They performed as singers in "covers" bands (playing popular songs written and recorded by "star" artists), or performed their original music in various instrument combinations in a range of live music commercial venues, such as pubs, clubs, and hotels.<sup>38</sup> Within this population (N = 102), 37 reported singing performance as their sole income, whereas 65 participants reported that they were employed in "other work" (their "day job") and that their speaking voice was used extensively as a component of this nonperformance work. These responses provided empirical data to support the researchers' emic knowledge of the field; that is, PCGS speaking voices were important for their professional functioning across the range of their employment situations in both performance and nonperformance work.

A multi-method approach was used to facilitate an understanding of the group. Qualitative responses permitted additional description to accompany the quantitative treatment of data. <sup>40</sup> The quantitative data collected from the 102 participants were analysed using descriptive statistical procedures from *SPSS* (version 16.0, SPSS Inc., SPSS for Windows, Chicago, 2007; version 17.0, SPSS Inc., SPSS Statistics for Windows, Chicago, 2008; version 18.0, SPSS Inc., PASW Statistics for Windows, Chicago, 2009; version 19.0, IBM Corp., IBM SPSS Statistics for Windows, Armonk, NY,

2010). The thematic component of the qualitative analysis involved coding the data according to significant threads in individual and group commentaries across those points. The codes were then organized into overarching themes using a "grounded method" of inductive qualitative analysis.<sup>41</sup>

#### Creating a picture of PCGS' total voice use

From our extensive experience in the field, we can report that PCGS is commonly faced with a general lack of industry commitment to contracted gig bookings or adherence to a standardized pay scale. It is not uncommon for these bookings to be verbal agreements only, and for the band leader to negotiate a fee for each booking with each individual employer. The resultant effect is an unreliable financial income and job insecurity for PCGS. Unsurprisingly, many have to undertake employment in an ancillary "day job" to supplement the income produced through their performance work.<sup>42</sup>

Bartlett's research was underpinned by a written, self-report survey that elicited responses to questions of background (demographics and singing training), current and past performance work (gig venues, gig durations, gig environments, and the range of performance styles). In terms of speaking voice load, participants were asked to report "on the gig" and "after the gig" behaviours, the structure of rehearsals, the impact of vocal health events, and importantly for this current paper involvement in non-performance work—the "day job." It should be noted that the results reported here are from a component section of the larger study where the impact of "nonperformance"-related employment (the "day job") was considered against collected data on vocal health and stamina for the group.

In addition to their gig performances, 65 participants (N = 102) reported that they were regularly *employed in work other than singing*. They listed 28 different occupations where they were working for up to 50 hours per week, averaging 20.92 hours (SD = 12.57). Females reported significantly more hours of *other* work than males (Kruskal-Wallis:  $X^2_{[1]}$  = 13.204, P < .001). There was no effect for age.

Participants reported 28 different occupational descriptors within the "other" work category, covering a wide range of activities. In keeping with similar reports in the literature, <sup>43</sup> the reported occupations were categorized into four groups according to the assumed vocal demands of each type of work (Table 1). The groups were defined as follows:

Group 1 (*Elite voice user*) included those occupations where voice is the essential tool of trade.

Group 2 (*Essential*) comprised those occupations where voice is considered essential in a nonperformance environment.

Group 3 (*Important but not essential*) comprised those occupations where voice is necessary but where the worker was able to function with less than optimal voice production.

Group 4 (*Nonvoice Reliant*) included occupations where the quality of the work did not depend on voice.

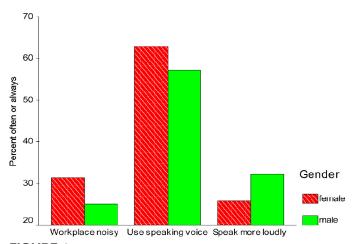
Thirteen participants (n = 65) reported involvement in multiple jobs in a variety of environments (Table 1) occurring in either *Elite* or *Essential* categories.

Category of Voice Use	Occupation	Number of PCGS
1. Elite voice user	Actor	6
	TV presenter	1
	Voiceover presenter	1
	Stand-up comedian	1
	Theme park actor	4
2. Essential	Teacher—singing, acting, classroom, vocal coach, teacher's aide, TV presenting	29
	Spruiker	1
	Telemarketer	1
	Call centre operator	1
	Campaign or fundraising coordinator	3
	Music events coordinator	1
	Receptionist	1
3. Important but	TV producer	2
not essential	Shop assistant	4
	Hospitality	2
	Lawyer	1
	Administration	4
	Customer service	1
	Bank accounts manager	1
	Beautician	1
	Promotions	2
4. Nonvoice reliant	Technician	5
	Factory worker	1
	Scientist	1
	Office worker	4
	University student	1
	Tradesman	5
	Masseuse	1

Reviews of the literature on professional voice users across a wide range of employment<sup>7–12</sup> suggest that those who use their speaking or singing voice excessively as a part of their career work are more prone to voice problems such as vocal fatigue. The majority of PCGS participants<sup>1</sup> (n = 65) reported that their *other than performance* work involved occupations that required heavy speaking voice use. Fifty-seven participants reported having to use their speaking voice as part of their *other* (nonperformance) work in the range of *often or always*. Thirty-seven (64.9% of this group) reported that the workplace was *noisy*, and 21 (36.8% of this group) said that they had to *speak more loudly* in the range of *often or always*.

As shown in Figure 1, female participants were more likely than male participants to report that the workplace was noisy or that they had to use their speaking voice. Male participants were more likely than female participants to report having to speak more loudly than normal in this work. The responses to use of the speaking voice were statistically significant, with the majority of the group reporting that they *most often* or *always* used their speaking voice as part of their work (mean = 4.47, SD = 0.88). Not unexpectedly, the need to speak more loudly than normal appears to correlate with the levels of noise in the workplace (Figure 1).

Although it is difficult to draw definitive conclusions from these data about whether voice complaints are associated with vocal load due to voice use during the singers' day jobs, it seems likely that this is so, and therefore the direction of causality deserves both focused consideration and further research.



**FIGURE 1.** Workplace noise-related issues by participants' gender.

#### Three embedded case studies

The following are unprompted, detailed descriptions of the impact of nonperformance-based employment on vocal health as reported by three female participants. The qualitative perceptions of these three participants are a snapshot in time, and although not conclusive evidence of impacts of "day job" voice use on the singing voice, they are representative of other responses in the sample (n = 65). Interestingly, the following descriptions illustrate that, beyond performance work, singers demonstrate a propensity to be drawn to speaking voice occupations.

# Example 1

A 41-year old female participant was engaged in a wide range of nonsinging "day jobs" that made considerable demands on her speaking voice: "Actor (TV, commercials, video, television—oneoff, anywhere from 1 day to a week at a time), Voice-overs—this sort of work constantly changing." At the time of completing the survey, she reported working two to three singing performance gigs per week, with an average of 4 hours' performance time for each gig. She was singing across a range of styles, including pop, rock, dance/funk styles all the time, and jazz and R&B often. In the past, she had sung pop and jazz all the time and rock and funk/ dance often. In addition to her frequent gig singing, she was employed in heavy speaking voice occupations (theatre production and voiceover work). In a related section of the questionnaire, she reported experiencing "strained voice" often and "hoarseness or roughness of the voice" sometimes. It was not ascertained whether one vocal activity (speaking or singing) or the combination of the two produced her voice symptoms; however, it would appear that, on average, and given the addition of everyday speaking voice use, this participant was speaking more than singing.

# Example 2

A 23-year-old female participant working two to three gigs per week with 4 hours on average for each gig was involved in a range of spoken voice activity in addition to her gig performances. She was representative of four other participants in the subset (n = 60) who reported "theme park" as their *other* work. She described her occupation as "attractions presenter" and she added, "I prefer my singing work to my other job." Currently, she was singing pop all the time and dance/funk often. In the past, she had sung pop all the time and rock often. In a related section of the questionnaire, she reported experiencing "hoarseness or roughness of the voice" often and "strained and tired or weak voice and inability to get high notes" sometimes. If, as the literature suggests,44 theme park performers are among the most "at risk" groups for occupational voice problems, this participant's reported voice symptoms may reflect a strong association with her speaking voice load in isolation from, or in combination with, her singing voice work (although no determining data were collected in this study). Ingram and Lehman specified a difficulty for theme park singers and actors while addressing the management of high-risk performers: "Typical dysphonic performers who are seen clinically are at a higher level of risk with increased vocal abuse, misuse, or sickness. However, there is a group of performers who work in theme parks that present even greater vocal risk."44

The final example offers comment on an overlooked area of common voice usage—that of voice use in caring for or working with children.

## Example 3

A 45-year-old female participant reported that in addition to her work as a PCGS, she was "a mother with constant voice disciplining of children." She also worked as a "teacher-aide" in a classroom setting. (In the Australian context, class sizes can be up to 30 children.) She was singing jazz *often* and rock, and country and music theatre styles *sometimes*; in the past, she had sung pop, rock, and country *all of the time*. Currently, she worked two to three gigs per week, with an average of 4 hours' performance time for each gig. In response to the question on voice symptoms, she reported having experienced only mild voice problems over the past 12 months and related this specifically to "physical tension."

The empirical evidence presented in Bartlett's<sup>1</sup> research is indicative of the possible extent of professional singers' speaking voice use during and in addition to actual performance voice loads. In other sections of the study (not reported here), participants clearly reported heavy, nonsinging-related voice use across a range of activities, including normal day-to-day communications with family and friends, performance- or gig-related spoken voice activities, social speaking voice use before, during, and after performances and rehearsals, and the additional voice load demands of their "day job."

#### **DISCUSSION**

Anecdotally, and from decades of performance and pedagogical experience across the spectrum of singing voice use in the musical theatre and CCM fields, we can report that singers and singer/actors frequently find themselves in heavy voice load "day jobs" precisely because of their unique training, skills sets, and temperaments. Wilson<sup>45</sup> observed that the "day jobs" in which vocal performers most often seek work include the following:

- Hospitality (waiters, bar staff, barista, sandwich hand, etc) (reason: personable, chatty, positive demeanor; performers like casual work with flexible hours and readily negotiated swapped shifts).
- (2) Call centres (telemarketers) (reason: emotional intelligence and nuanced voice management make them preferred employees; skill at defusing tense situations, and charming resistant customers by voice alone, is invaluable.).
- (3) Teachers (reason: young actors and singers are often encouraged to undertake an education-oriented, academic degree either before or after their formal performance training. The traditional wisdom of "something to fall back on" is often cited. As teenagers, they may be enlisted to teach children's dance, singing, or drama classes within their performance school. This can lead to adult classes as they gain teaching experience.).

(4) Retail sales (reason: confident, well presented, gregarious, friendly, easily engaged in conversation performers are *naturals* for retail work.<sup>45</sup>).

It is well documented that voice problems may be the result of habitual actions, such as coughing and throat clearing, yelling and shouting, or speaking with an imposed or inefficient laryngeal posture. Within the environmental context of "day jobs" on Wilson's 45 list, such habitual actions could be involved and could impact a singer's overall vocal health condition.

At first glance, it would appear that low voice-demand work would be a better choice for professional singers and singer/ actors who need to supplement their income with a "day job." However, the possible presence of environmental hazards in low voice-demand jobs needs to be factored into any measurement of risk for the group. For example, constant, loud background noise could damage the hearing of a factory worker, whereas toxic fumes could damage the voice of a welder<sup>47</sup> or a nail technician in a beauty parlour,<sup>48</sup> and a dairy foreman exposed to formaldehyde could develop occupational laryngitis.<sup>49</sup> Professional voice users should consider such insidious risk when weighing the value of a low voice use work against "day jobs" involving prolonged voice use; however, the latter also brings associated risk for singers.

The literature presents evidence that chronic voice disorders are commonplace in occupations such as teaching and that such voice disorders are "more prevalent" among teachers of vocal music<sup>50,51</sup> than the general population. Thibeault et al<sup>52</sup> suggested that singers who also teach are at significantly greater risk of having an occupational voice disorder because they are doubly burdened by the necessary excellence in voice production required for both singing performance and speaking voice use in teaching environments (table 1—Elite and Essential voice categories<sup>1</sup>).

It is generally accepted that singers report a greater awareness of small changes to their voice production,<sup>20</sup> and therefore are more likely to seek help than the general population. However, although their concerns may be focused on changes in their singing voice, we propose that causal factors actually may lie in unrecognized misuse or overuse of their speaking voice. This brings into question the general focus of the literature of singing voice on performance and training issues (such as a presupposed relationship of style choice and voice problems; classical vs contemporary vocal technique) without consideration that in times of artistic underemployment or unemployment, this group of professional voice users is often drawn to speech voiceintensive "day jobs" to support their primary performance work (the portfolio career). Ironically, singing voice artists may become "trapped" by the suitability of that "day job" to their temperament and training, with a possibility that vocal degradation (effected by the "day job") could reduce their ability to work at the highest levels of their acting or singing skills when performance opportunities do arise.

In considering these complexities, we propose that the voice demands of "day jobs" must be considered in any vocal health plan for CCM singers. While it is essential for researchers, singing voice trainers, and voice care specialists to remain cognizant of the impact of performance-related elements such as environment (ie, professional work arena—theatres, commercial venues, studios, etc) and performance stresses (eg, repertoire style elements, demands of directors, employers, peers, fellow musicians, and audiences), a knowledge of current research findings concerning employment-related voice health hazards (biomechanical, chemical, allergenic, acoustic, etc) would further inform best-practice health care for singers and singer/actors. Although it may be fiscally unrealistic and impractical to counsel performers to leave day jobs that have potential to negatively impact their singing voices, the dangers of reduced voice capacity should be discussed.

Richard Smith<sup>53</sup> quotes the aphorism, "It's one of the maxims of medicine that listen to the patient and he or she will tell you the diagnosis"; however, for full disclosure to occur, the relevant questions must first be asked. In terms of maintaining optimal health (both general and vocal) across all aspects of their portfolio careers, we suggest that performers who disclose that they are engaged also in heavy voice load "day jobs" (eg, call centre operators, hospitality) should be guided through specific training regimes focused on building vocal stamina in both speech and singing voice.

# **CONCLUSIONS**

Whereas definitive conclusions (regarding whether singer and singer/actors voice complaints are associated with vocal load due to voice use during "day job" activities) are difficult to make on the basis of the data at hand, the qualitative and quantitative analyses¹ presented here provide strong indications that these associations might exist. From our research of the literature and our ongoing investigations with practitioners in the field, we are convinced that there is a need for an empirical study to fully assess the impact of "day job" work environments on singers and singer/actors' vocal health and career longevity.

Data on the number of PCGS performing globally are almost impossible to come by, not least because of the twin problems of definition of the term and self-identification of PCGS as a group. It is therefore difficult to determine what kind of sample size would be statistically representative. Although we do not claim that the samples reported in this paper are representative of the global population, we suggest that our research scope allows for considerable insight into the kinds of issues faced by PCGS across a range of musical and professional contexts in Australia, and given the similarities in the environments in which PCGS operates in other parts of the world the issues reported here seem likely to have strong relevance to other contexts.

In factoring "day job" voice use into training or intervention plans for CCM singers and singer/actors, we can begin to appreciate and support the vocal athleticism of this group of talented professionals while assisting them to manage the continuous and extraordinary voice demands of their multifaceted lives.

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