The Ideal Jazz Voice Sound:
A Qualitative Interview Study

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ABSTRACT

The vocabulary of words and phrases used by musicians to describe instrumental and vocal timbre has been explored by Bellemare and Traube (2006), Garnier et al. (2007), and Prem and Parncutt (2007). The timbre of the ideal classical singing voice is linked to the need to project over loud accompaniments (e.g. singer's formant, formant tuning; Schutte and Miller, 2000). The ideal jazz voice takes advantage of microphones enabling greater expressive variation. Implicit concepts of ideal or authentic voice sounds influence teaching in conservatories and music academies but have been the subject of little empirical investigation.

Twenty Austrian jazz singers (not necessarily German native speakers) are being interviewed. All are or used to be students of jazz singing. In open interviews, each participant brings ten examples of jazz singing on CD or MP3 and describes that singer's voice sound. The qualitative data are represented in an XML database. XSLT stylesheets are used to create tag clouds where the size of a word reflects its number of occurrences.

Frequent terms (words that are used by more than 60 percent of the participants) for preferred singers include *deep (tief), jazzy (jazzig) beautiful (schön), spoken (gesprochen), soft (weich), powerful (kraftvoll), instrumental (instrumental), airy (luftig), diverse (facettenreich), dark (dunkel), nasal (nasal), headvoice (kopfig)* and *manly (männlich).* Apart from that more than 50% used the words: *clear, warm, bright, playful, souly, peculiar, ideal, full, high, light* and *narrative.* The vocalists with the most listening examples is Ella Fitzgerald (10/20) who is commonly referred to as: *present (present), soft (weich), musically talented (musikalisch), easy (locker), head voice (kopfig), big (groß), emotional* (gefühlvoll). Female jazz voice sounds are most often described as *powerful (kraftvoll)*, *clear* (klar) and *airy* (luftig) whereas male voices are described as *soft (weich), spoken (gesprochen),* and *diverse (facettenreich).* Most descriptors (260/587) were used by less then 10% of the participants, and few terms (25) were used by more then 50% of the participants, suggesting a big difference between active and passive expert vocabularies in this domain.

We explored the "ideal" jazz voice sound without asking for it directly. Participants additionally showed remarkable motivation to listen to and experiment with different sounds to cultivate their individuality as jazz singers, raising questions about the tension between uniformity ("ideal" prototypes or exemplars) and individuality. Our project is raising awareness for the importance of sound and timbre in jazz singing, improvising/composing and teaching.

I. INTRODUCTION

"What does an ideal jazz voice sound like", what makes a jazz singer a jazz singer?" (Gibbs, 2012) and "how can jazz vocal sounds be taught?" are central questions in jazz singing practice and jazz voice pedagogics. The understanding of how the voice is used in different styles of singing is commonly based on intuitive descriptions offered by performers who are proficient in one style (Stone, 2003). The vocabulary of words and phrases used by musicians to describe instrumental and vocal timbre has been explored by Bellemare and Traube (2006), Garnier et al. (2007), and Prem and Parncutt (2007). The timbre of the ideal classical singing voice is linked to the need to project over loud accompaniments (e.g. singer's formant, formant tuning; Schutte and Miller, 2000). On the contrary a jazz singer can take advantage of microphones enabling greater expressive variation. The distinction between a jazz singer and a pop singer is much more intricate, as in both styles microphones are used. This enables a huge variety of voice sounds for both vocal styles. Furthermore each style influences the other (pop-jazz) and is influenced by different musical genres. One difference might be in the "singing motiviation": making arts/being authentic vs. making money (Prem et al., 2011). Gibbs outlines the thesis, that only and "authentic jazz singer is an ideal jazz singer" (2012). Jazz purists similarly differ between a *real* jazz singer and a *jazzy* singer (Nicholson, 2005) respectively a *jazz stylist* (Gibbs, 2012).

Implicit concepts of *ideal* or *authentic* jazz voice sounds are influencing the teaching but have been the subject of little empirical investigation. Since jazz has been taught at universities, researchers, pedagogues and artists are constantly striving for a definition of jazz and mainly result in the idea of the "core" of a jazz sound. De Vaux describes the *core* of jazz as: "improvisation, swing and blues" (Grandt, 2005). This definition provides an informative basis for what jazz is, but doesn't provide a satisfying definition for jazz singing. Many jazz singers don't improvise, the repertoire is influenced by different musical styles, not only swing and blues. Related to that the so-called "core of the American jazz pedagogy" is assumed as a common language that should be taught and spoken before moving on to variations of it and the wider aspects of jazz (Rinzler, 2008). "The style of jazz taught in high schools, colleges, and universities is derived from the conventions of the bebop-hard bop style of the1950s and 1960s" (Nicholson, 2005). Apart from teaching what has been done in the past, jazz singers and musicians aspire to gain *individuality.* So educational institutions have to offer a framework of teaching the *core* of jazz (mainly bebop) just the same as keeping the musical language of jazz alive, by developing a *periphery* and managing the diversity. Students themselves are diverse and in addition to that exposed to an infinite diversity of musical experiences which encourages *individuality.* According to Rinzler, it seems that "the opportunity to encourage individuality in jazz education is an

empirical question" (2008), which we aim to explore in this empirical study.

II. METHOD

Twenty Austrian jazz singers (ten male, ten female) have been interviewed. The interviews have been held in German language, the interviewees were not necessarily native but fluent German speakers. All were or used to be students of jazz singing on universities or conservatoires. All have had experience in teaching jazz singing, but actually 14 out of 20 are working as vocal pedagogues. There regular occupations are quite diverse, varying between being full time student, actor/actress, vocal coach or musical director in a theatre. All participants were performing or used to perform as jazz singers regularly (at an average of twice a month). The average age is 33 years, the youngest participant was 19 the oldest 61.

In open interviews, each participant brought ten listening examples of jazz singers on CD or MP3 (if both wasn't available, the music was searched for and listened to on Youtube. If so, the participant was not allowed to watch the video). After listening to an example for 15 seconds, the participant was asked to describe the singer's voice sound in his/her own words and with his/her everyday language. The interviewer was allowed to ask questions according to the vocabulary like: "what do you mean by *jazzy, ideal, authentic,* and so on?" The interviews had a natural conversational character. If the interviewees couldn't think of any way to describe the sound, the interviewer asked questions like: "What images or associations arise when you are listening to it?, What kind of emotions do arise?, What would you have to do to produce the same sound?, Why do you (not) like it?,…" and were encouraged to talk freely.

The qualitative data were analysed using a XML database. XSLT style sheets are used to create an html homepage and to generate tag clouds, where the size of a word reflects its number of occurrences. Currently we creating a sound descriptor search engine and working on a co-occurrence matrix of all the sound descriptors using SPSS.

III. RESULTS

A. Vocabulary

The jazz voice sound vocabulary reappears as an individual, diverse and intuitive language. All together 2654 times a description has occurred. Each example has been described with an average of 133 words. The number of different terms that have been collected is: 587 jazz voice sound descriptors.

The "common language" (words that are used by more than 50% of the participants) consists of 25 out of 587 words (s. Figure 1) and reflects the most important criteria for an ideal jazz voice sound. These 25 words form what we use to call this actively shared vocabulary the *core* of an ideal jazz voice sound. *Deep, jazzy* and *beautiful* are the words that are used most often to describe jazz voice sounds. *Spoken, soft, powerful, instrumental, airy, diverse, dark, nasal, headvoice* and *manly* are also among the words that are used by more than 60 percent of the participants. Apart from that more than 50% used the words: *clear, warm, bright, playful, souly, peculiar, ideal, full, high, light* and *narrative*.
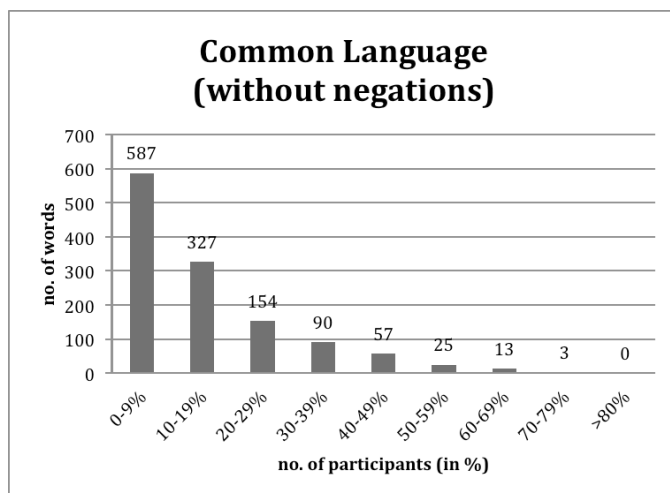
Figure 1. The common language of Austrian jazz vocalists. All together 587 different descriptors were used. 25 words are used by more then 50 % of the participants (not considering conformities in the negations, like: open and not open, or authentic and not authentic). Almost 50% of the vocabulary is used by less then 10% of the participants.

Apart from the small core of common jazz sound descriptors, jazz singers use a highly individual, intuitive and diverse vocabulary to describe voice sound. Almost 50% of the vocabulary is only shared by 10% of the participants. Among this vocabulary are words like: *squawking (quäkend), sweet (süß), superior (erhaben), silky (seidig), velvety (samtig), stony (steinern)* etc. These descriptors cover a huge range of intuitive associations and synaesthetic experiences of the listeners themselves. It therefore reflects the individuality of the vocabulary on the one hand and the diversity of jazz voice sounds on the other hand. We call this part the *periphery* of an ideal jazz voice sound.

The results show that an ideal jazz voice reflects the *core* of a *jazzy (jazzig)* voice sound as much as it reflects the individuality of the singer him-/herself - the *periphery*. The *core* consists of the active vocabulary that participants use and understand. The periphery of the vocabulary consists of descriptors, which are not used but understood by different participants (passive vocabulary).

B. Music Examples

All together we collected 198 music examples (two interviews had to be interrupted after nine examples), performed by 97 different jazz vocalists (60% female and 39% male jazz vocalists). The number of jazz vocalists that only appeared once throughout the interview study (60 examples) is almost twice as high as the number of performers that appeared at least two times. That means two-thirds diversity (periphery) compared to one-third common agreement (core).

According to the number of appearances *Ella Fitzgerald* is the favourite jazz singer of our participants (10 examples), followed by *Kurt Elling* (8 examples), *Carmen McRae* and *Mark Murphy* (7 examples). Also among the most often cited vocalists are *Chet Baker, Nat King Cole, Jamie Cullum* (6 examples each). *Andy Bey, Dianne Reeves* and *Frank Sinatra* are also among the favourite jazz singers (5 examples each). There is a greater consensus on male vocalists and a higher variety or individuality of female vocalists. This implies, that

female voices need to have greater variety (practice the *periphery*) in contrast to male voices who need to have a strong *core*.

The voice of *Ella Fitzgerald* is mainly referred to as an *ideal* jazz voice sound (6 out of 10 participants used that descriptor). Furthermore her voice is described as *jazzy (jazzig)* (4/10) and commonly referred to as: *present (present), soft (weich), musicaly talented (musikalisch), easy (locker), head voice (kopfig), big (groß), emotional (emotional)*. Out of 103 descriptors, 75 were only used once to describe special nuances of her voice sound. Her voice sound has a small core (9 words) and a huge periphery (94 words), which on the one hand reflects her *jazzy* voice sound and on the other hand reflects the huge individuality of the perception and description of her voice sound (*periphery*).

C. Gender Differences

Among the top 10 sound descriptors that are used to describe male and female voices are *spoken (gesprochen), jazzy (jazzig)* and *instrumental (instrumental)*. Among the top 25 (referring to 25 words, that form the core of an ideal jazz voice sound) the words: *airy (luftig), deep (tief), beautiful (schön), body of a voice (kernig), diverse (facettenreich)* and *in front – according to resonances in the vocal tract (vorne)* describe female and male jazz voices. Together with *technical* (technisch) these are the ten descriptors that form the *core of an ideal gender-free (either female or male) jazz voice sound* (s. table 1.).

Words that are commonly used to describe female voices but not commonly used to describe male voices are: *powerful (kraftvoll), clear (klar), big (groß)* and *nasal (nasal)*. Furthermore a female jazz voice in contrast to a male jazz voice ideally sounds: *breathy (hauchig), intimate (intim), ideal (ideal), bright (hell)*. Female jazz voices are more often described as the *ideal* jazz voice sound, and regularly represent an *african-american/ black (afroamerikanisch/ schwarz)* sound ideal. Those ten descriptors reflect the *core of an ideal female jazz voice sound* (s. table 1.). Alltogether 197 words are used to describe female jazz voices. In describing female voices the interviewees tend to refer more often to the register that is used (chest voice – 15 nominations, head voice – 12 nominations). Registers and mix of registers seems to be more important for female jazz singers and influences the quality of a jazz voice sound. Five of the top ten descriptors refer to a *head voice quality* (*clear, nasal, breathy* and *bright*). *Big* is an association that typically refers to the range of a voice sound (chest and head voice). Only *powerful* represents the chest voice quality.

Male jazz voice sounds are more often described as: *warm (warm), manly (männlich)* and *dark (dunkel)*. In contrast to female voices, which are more often described as the *ideal* jazz voice sound, male voices are more often described as *authentic (authentisch)*. Additionally male voices in contrast to female voices sound: *distinctive (unverwechselbar), reduced (reduziert), emotional (emotional), relaxed (entspannt)* and *scratchy (kratzig)*. Their timbre equally often is described as having either a *poppy* (poppig) or a *classical* (klassisch) quality.

According to these results male jazz singers ideally should have a *warm* and *emotional* (typically female) quality and female singers a *powerful* (typically male) quality in there

voice. Female voices are more often judged by their voice technique (register transition), whereas male voices are classified into pop or classical voice. *Soft (weich)* is the number one descriptor for male voices, and is only number 27 of descriptors for female jazz voices. *Erotic* and *sexy* are on position 29 and 33 in the list of male voice sound descriptors (overall 16 nominations) and are on positions 66 and 79 (11 nominations) for female voices. As a result it is more ideal for a man singer to sound *sexy* than it is for a female singer.

Table 1. Most typical descriptors according to gender

Position in list (1-587)	Top 10 Timbre Descriptors		
	Female	**Male**	**Both**
1-10	powerful, clear, big, nasal	soft, warm, manly, dark, authentic	spoken jazz sound instrumental
10-25	"black", breathy, intimate, ideal bright, sad,	distinctive, scratchy, reduced, emotional, relaxed	airy, deep, beautiful, body (*kernig*), diverse in front
25			technisch

D. Qualitative Analyses

The word that is not part of the vocabulary (list of 587 sound descriptors) but was used by every jazz singer is the word *vibrato*. It seems to be a sticking point of the preference of a jazz singer. The favourite vibrato is sometimes linked to the sound of the participants own voice sound. One interviewee realized after the third music example, that she had chosen only jazz singers, who have the same kind of vibrato she has (JS218). Several interviewees don't like too *big (groß) vibratos*, which sound too *classical* (klassisch) or *forced* (forciert) but prefer *reduced* (reduziert, einfach, schlicht) kind of vibratos, which are used *sparingly (sparsam)*.

When talking about *ideal* jazz voice sounds, the interviewees made clear distinctions between their own ideal and the ideals of their educational institution respectively the official (international) jazz voice sound ideal. Even though interviewees sometimes believe, that the influence of the educational institution and their own ideals will fuse together into "one entire…sound" (Gesamtklang) they feel constantly torn between "two worlds" (JS107). Very often they referred to Ella Fitzgerald as "the ideal jazz singer", the "mother of jazz" or even the reason for them to start sing jazz. There is not such a great consensus on male jazz singers among others Frank Sinatra, Andy Bey, Chet Baker and Jamie Cullum are referred to as being participants ideal jazz singers.

The importance of an *erotic* voice sound has been discussed in several interviews. Some interviewees are convinced, that it is in the nature of singing and therefor singing is always erotic others think it is a cliché of a jazz singer to have an erotic voice sound. Distortions that reflect throut-sounds (kratzig, knarrig, kehlig…) or breathy sounds (breathy, airy…) in voice qualities are associated with an erotic voice sound.

African American jazz singers are represented in our data with more then 50%. Jazz singers seem to agree on an African

American sound ideal, which is presumed to be the original root of jazz singing.

IV. CONCLUSION

We explored the *ideal* jazz voice sound without asking for it directly. Participants additionally showed remarkable motivation to listen to and experiment with different sounds to cultivate their *individuality* as jazz singers, raising questions about the tension between *uniformity* (prototypes or exemplars) and *individuality*.

According to our results, jazz singers use a highly intuitive and individual vocabulary to describe jazz voice sounds. The common language, 25 words that are used by more than 60% of the participants, reflects the *core* of jazz voice sound descriptors. Almost 50% of the vocabulary is only shared by 10% of the participants (*periphery*). The common language (words that are shared among jazz singers, active vocabulary) facilitates communication in teaching situations and jam sessions. Words that are used by only one or two participants (partly understood by other jazz singers, passive vocabulary) reflect the individuality of the vocabulary on the one hand and the diversity of jazz voice sounds on the other hand. This bigger part of the vocabulary consists of descriptions that reflect the perception and the description of the interviewees listening experience as well as the diversity of the voice sounds themselves.

Ideals differ according to gender. Female jazz singers ideally sound *powerful, big* and *clear*. It is important for female jazz singers to be technically skilled especially according to register transition. Male jazz singers on the contrary, represent an authentic voice sound that needs to come across very *relaxed, warm, simple* and *manly*. It seems to be more respectable to describe a male sound as *sexy*. If women sound *sexy* it has quite often a negative connotation and comes across imitated or inauthentic.

Ideally a jazz vocalist needs to develop a core of a jazz voice sound, by on the one hand listening to and imitating traditional jazz singers (e.g. Ella Fitzgerald) and on the other hand having a good voice technique (register transition, relaxed sound). At least equally important is to develop once own sound, by listening to a great variety of (voice) sounds, not necessarily jazz voice sounds. The use of vibrato is important, what is preferred differs from period to period and from person to person, the material of once own voice, the kind of vibrato a singer naturally has, is intended to be a reference point.

The diversity of students listening experience nowadays offers a rich basis to develop the so-called periphery to gain an individual, original and authentic jazz voice sound. Mentoring in peer groups at universities and colleges might be a possible solution to broaden musical horizons and manage this diversity. Working together with musicians our project is raising awareness for the importance of sound and timbre in jazz singing, improvising/composing and teaching. By using our database jazz singers will not be forced to use a limited *core* of a common language anymore but can also communicate the *periphery* of sound descriptions and hence the individuality of voice sounds.

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