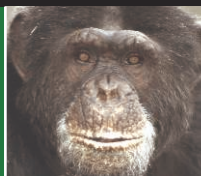


# Science

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## LETTERS

edited by Jennifer Sills

### The Right Pitch for Saxophonists

THE BREVIA BY J. M. CHEN *ET AL.* ("EXPERIENCED SAXOPHONISTS learn to tune their vocal tracts," 8 February, p. 776) substantially adds to the debate, now more than 25 years old, on the influence of the vocal tract on the tone production of single-reed instruments. I thought it might be useful to offer some practical experiences on the subject as a jazz saxophonist who has been playing professionally for nearly 50 years. Professional saxophonists have always been looking for a scientific explanation of the phenomenon often described by myself and others as "singing through the horn." This is a totally instinctive and rather colorful expression that describes rather well the use of the vocal tract in the art of good tone production on the saxophone or other reed instruments.

I first became aware of the importance of using my vocal tract while playing in the saxophone section of a famous British big band in the early '60s. One night, after some thought on the subject, I discovered that if I mentally "sang" the notes, I was able to play much better in tune and with a fuller and more centered tone. It made sense that by almost silently singing the notes, the sound would be more focused. Of course, for many years now, the importance of this aspect of technique has been well known, but it has not been well understood.

I have always taught saxophone pupils to "sing through their horns" but now elaborate with more precise instructions. In general, the higher the note on the instrument, the more one has to lift the back of the tongue and restrict the size of the oral cavity. This explains why

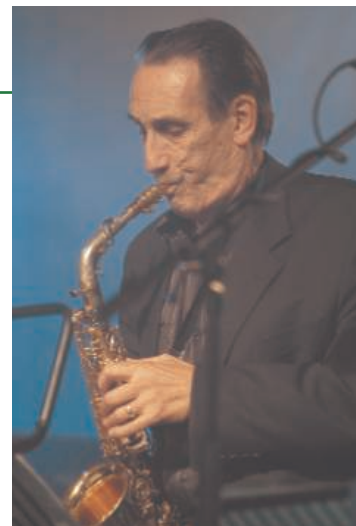
using the vocal tract is especially important when playing in the "altissimo" register of the saxophone.

The saxophone is without doubt the most "flexible" of all the reed family; it has the widest range of possible tone colors of all wind instruments. This flexibility is the reason why the greatest jazz saxophonists have such uniquely personal timbres. One only needs to hear "masters" like John Coltrane, as well as Coleman Hawkins or Stan Getz, to realize the saxophone can produce sounds of enormous variety; sounds whose individuality comes closer to the human voice than on any other instrument.

I have always maintained that the saxophone is one of the easiest instruments to pick up and get a tune out of, but the hardest of all to play with a truly great and personal sound. Much of the art of saxophone playing relies on an impeccable understanding and control of the vocal tract and the ability to almost literally "sing through the horn."

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Singing through the horn. Peter King plays his saxophone.

### Second Basket's Negative Impact

ON 1 JANUARY 2008, THE GERMAN "SECOND Act Governing Copyright in the Information Society" ("Second Basket") took effect. Second Basket limits the circulation of scientific documents and will substantially reduce scientific communication among researchers. For example, libraries or other document providers may send copies electronically (e.g., in PDF format) only if the publisher of a particular work does not itself offer the work online in a clear manner and on reasonable terms. In principle, the Copyright Act strengthens the protection of authors' intellectual rights; however, most scientists do not want this protection if it

comes at the expense of efficient and effective circulation of scientific information. Effective science relies on effective communication, often quantified by the term "impact" (1).

Who is really protected by limiting the circulation of scientific knowledge? Publishers benefit most. The Copyright Act requires them to deliver scientific work on "reasonable terms," making possible a wide spectrum of business terms and conditions. Transfer agreements allow publishers to claim the copyright. A paradoxical situation emerges: National research foundations pay scientists to write papers, but the scientists must transfer the copyrights and then buy back their own papers in order to provide access to them. The international

community should create a suitable framework for international copyrights in a networked world (2).

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#### References

1. E. Garfield, *Science* **178**, 471 (1972).
2. M. Seadle, *Library Hi Tech* **25**, 298 (2007).

### Going Public with the Scientific Process

THE IDEA OF USING FRAMING STRATEGIES TO communicate science to the public has recently been taken up in scientific forums