

THE LEFT ATRIUM

Lifeworks

Sine waves and brush strokes

Anne Tweed: *Sound Shapes*
Peer Gallery, Lunenburg, NS
May 19–30, 2007

The series of paintings *Sound Shapes* explores the shape of the sounds of speech and the perceptual confusion that can arise as hearing diminishes. I have previously investigated the shape of sound as it relates to a phrase of music (*Jalousie* 2005), where the repetition of sound

has been incorporated into the shape of the piece. *Sound Shapes* continues this investigation into the shape of sound, but uses vocal sound, phonemes, as a source. Sounds are 3-dimensional objects, they have frequency or pitch, intensity or loudness, and duration. In addition, they envelope us 360 degrees unlike visual stimuli, which are only perceived through a radius of 180 degrees.

Two concepts have come together in the development of this series. The first

is synaesthesia (the ability to associate sound with colours or shapes at the cortical level), and the second is the loss of auditory perception that occurs with age.

By age 20 there is demonstrable loss of perception of some high frequency auditory signals. This is not a significant loss to an individual unless they have a preference for the high frequency cell phone tones that are inaudible to adults. As we continue to age there is a gradual continual loss of the ability to perceive certain frequencies.

DOI:10.1503/cmaj.070673



Anne Tweed

Anne Tweed, *Sound Shapes #12*. 24 × 48 in. Collage, acrylic, oil on canvas. This painting represents, in visual form, the difficulties of extracting meaning from partially heard speech sounds. Using shapes derived from elements of the anatomy of the ear (the cochlea and the semicircular canals), symbols from the international phonetic alphabet and symbols of sound waves as a starting point, the image slowly develops. During the process of painting the readability of the original shapes is partially lost and new shapes emerge opening the possibility of multiple interpretations.

Speech sounds usually have an intended meaning that is easy for the recipients to understand, while abstract painting and abstract sound (music) are open to multiple interpretations by the viewers/listeners. This series of paintings is the artist's visual interpretation of a particular type of perceptual confusion.

This is slow and insidious, and often not noticed by the individual until they become aware of having difficulty understanding speech, particularly in noisy environments.

As the ability to distinguish certain phonemes disappears, the individual relies on other cues to interpret meaning from the spoken word, such as speech reading, context and memory. The brain essentially fills in the gaps created by these absent phonemes in much the same way as the visual perception system fills in the gaps when presented with a visual representation of an image that is not photorealistic. This “filling in” of auditory gaps requires intense effort on the part of the listener, as unlike visual images there is often no opportunity to go back and listen again to extract more information — it has to be done in real time.

As the gaps get larger so does the chance of misinterpretation. This is not so much a problem if we are dealing with abstract sound such as music; ambiguity and multiple interpretations are acceptable. However, accurate communication via the spoken word is extremely important for most human interaction and when lost can lead to a profound sense of isolation.

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ALL FORGIVENESS

Confession of our faults is the next thing to innocence.

— Publius Syrus, *maxim 1060*

The art of confession has an illustrious history: think of St. Augustine and Rousseau. A fault admitted is more readily forgiven than a fault denied, and sometimes there's a good story in it. The Left Atrium welcomes short poems and prose submissions of up to 1000 words. Confide in us at pubs@cma.ca

DOI:10.1503/cmaj.070651

Room for a view

Language in a context

The lips come together — “M” “P” “B” — so easy to recognize, but which of the 3 is it? I have no time to consider all the possibilities; the conversation goes on relentlessly, leaving me behind, hung up on “M” words, when it should have been “B” or “P.”

Being a lip-reader is like having only a partial command of a foreign language, first because you are constantly trying to fill in the gaps in what you have heard (or seen), and second, because other people are not going to modify or adapt their level of conversation to your needs, unless they are specially aware and considerate. As an adult, I suddenly lost my hearing over a very short period of time. When I began to study this art (skill?) of lip-reading, I naively assumed that it would just be a matter of practice, as with scales and arpeggios for example. Given a few tips and enough practice, I would understand everything that everyone was saying. How wrong I was! The beginners' class proceeded cautiously and I was lulled into complacency, ignoring the great dangers of that first consonant group “M” “B” “P.”

I have read that a lip-reader cannot expect to grasp more than 30% of what is spoken. In my present state of disillusionment, I think the percentage is even lower. The final group of consonants we learn — a far cry from “M” “P” “B” — is rated “impossible,” shortly preceded by 2 groups that are “very difficult.” Together these groups account for almost half the alphabet!

Just consider my arch enemy, the letter “D.” Not only is it easily confused with “T” as one might expect, but also, and just as often, with “L” and “N,” or even “S.” Which is it? Context is everything. Context is the rock upon which a lip-reader builds. Without a context, or without knowing what it is, you build upon shifting sands. One day in class we were working on questions beginning with “When...?” The instructor targeted



me with “When are you going to see your doctor?” For a few moments I was proud of myself for reading the question straight away. But no, I was in trouble for overlooking the *context* (which was family relationships) and the correct version was, of course, “When are you going to see your daughter?”

Quick now — back to “M” “P” and “B.” Given that the context is cultural and the word has 2 syllables, is it “Mozart,” “Beaux-Arts,” or “Postcard”? They all look exactly the same.

The British poet David Wright, who incurred total deafness at the age of 7, never *learned* to lip-read: “It came to me naturally, as it does to people who work in noisy factories and can hardly tell whether they hear or lip-read what is said to them.”¹ He goes on to say, however, “But lip-reading is not simply a physical operation in which the eye has learnt to interpret for the ear, it is also an intellectual exercise. Lip-reading is 90% guesswork.”

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REFERENCE

1. Wright D. *Deafness: a personal account*. London: Cox & Wyman Ltd;1969.