

On listening

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“Listening” There is a lot of structure crammed into that word. What is going on?

The notion of telepathy assumes that the listener experiences the speaker's thoughts directly, that is, without the intervention of words, speaking, and hearing, (encoding, transmitting, receiving, and decoding), through a mysterious direct “mind to mind” melding. Like so-called “out-of-body experiences”, this depends upon the assumption of Cartesian Dualism, that the “mind” is some kind of non-material “substance” that is capable of “existing” separately from the body.

The wildest of thought that I can come up with is that the brain (not mind) uses a percentage of quantum entangled electrons or other particles whose counterpart is in the brain of another by some unspecified interaction process - interaction with these entangled electrons - detecting them, identifying which ones that are entangled with the ones in the target person's brain, and decoding the configuration somehow into a parallel brain state, while remembering that the quantum number is reversed from one electron to its entangled counterpart - sort of like mind-melding with a mirror image in which everything is reversed. Nothing like the particle physics instrumentation exists in the chemistry of the brain, so this fantasy is indeed the wildest of imagination.

However the putative fantasy of telepathy may work, from a communications theory standpoint, it cannot work by the conduit metaphor. “Real” communication is a much more complex phenomenon.

We use a technological conduit metaphor to explain listening.

1. Thoughts are encoded into words
2. The words are spoken.
3. The listener hears the words.
4. The listener decodes the words into the speakers thoughts.
5. And thus the listener understands what the speaker was thinking.

The hidden flaws in this metaphor are not limited to these:

1. Dualism is false. The “mind” is what the brain does. When the brain stops “doing”, there is no communication. Communication is an active physical process.
2. Even if you conceive of “thoughts” as “interior imitation of speech”, each person learns his or her “meaning” of any given word as an abstraction from the entire complex of lifetime experiences with that word, a consequence of which is that each person has a unique “meaning” for every word, and because this meaning is neurologically encoded, it cannot be directly compared with any other person's corresponding meaning without unique speaker encoding, noisy transmission, and unique listener decoding. The encode and decode functions are not inverses of each other; they are different. Moreover, each person's encode and decode functions are not inverses, because, among other things, selective perception alters the context between transmission and reception. Once you have heard yourself say something, and you hear it with a different meaning, “Great Scott! Did I really say that?!”

3. Every medium of transmission has characteristics that “filter” transmissions, allowing some frequencies while blocking others. The medium both adds information and removes information, technically called “noise”. Also entropy degrades the signal resulting in losses. Trying to listen to your friend in a crowded bar or family gathering illustrate this point. Digital media use square waves and include pulse reforming apparatus to restore the signal to its former square wave shape, but the probability of a pulse being reformed as a low instead of a high or vice versa, is not zero. Error correction technique using a checksum allows for correction of some errors. Also handshaking that requests re-transmission of detected errors that could not be corrected uses redundancy for error correction.

4. Communication is not simply an exchange of ideas. Every person exists in a context, is in the process of interaction based on motives and desired results. Each person is communicating for various reasons, many of which are subliminal. Those motives create selective perception of the form looking for something in the input stream. What does the speaker seek to achieve consciously as well as subconsciously (which may or may not be compatible).

5. Each person has his or her internalized model of not only known individuals, but of generic “stereotypes” of people, which influence how to choose speech designed to have the desired effect on the behavior of the target person(s).

We speak and act to effect our environment for survival and reproduction and all the social activities that support survival and reproduction. We speak and act so as to satisfy our conscious and subconscious needs and desires (which may or may not be compatible). In short, speech acts are tools to influence our environment so as to bring about a desired outcome. You speak because you want someone to do something that you need or desire.

5. Not the least of speech acts is to facilitate our own understanding of our physical and semantic environment - learning to improve our ability to effectively function in a hierarchy of physical-semantic environments.

More to come later.