

Decoding and the Jabberwocky's Song

Sebastian Wren, Ph.D.

In Lewis Carroll's book, *Through the Looking-Glass and What Alice Found There*, Alice reads a curious poem about the Jabberwocky's Song, but when she finishes the poem, she confesses that she is a little confused about what the poem was about:

"It seems very pretty," she said when she had finished it, "but it's rather hard to understand!" (You see she didn't like to confess even to herself, that she couldn't make it out at all.) "Somehow it seems to fill my head with ideas—only I don't exactly know what they are! However, somebody killed something: that's clear, at any rate—"

What a curious poem that fills one's head with incomprehensible ideas – that has a plot but makes no sense. We've all read the poem...

*'Twas brillig and the slithy toves
Did gyre and gimble in the wabe;
All mimsy were the borogoves
And the mome raths outgrabe.*

It turns out that Lewis Carroll had an interpretation for what this means, but it doesn't make much more sense than the unfathomable original version:

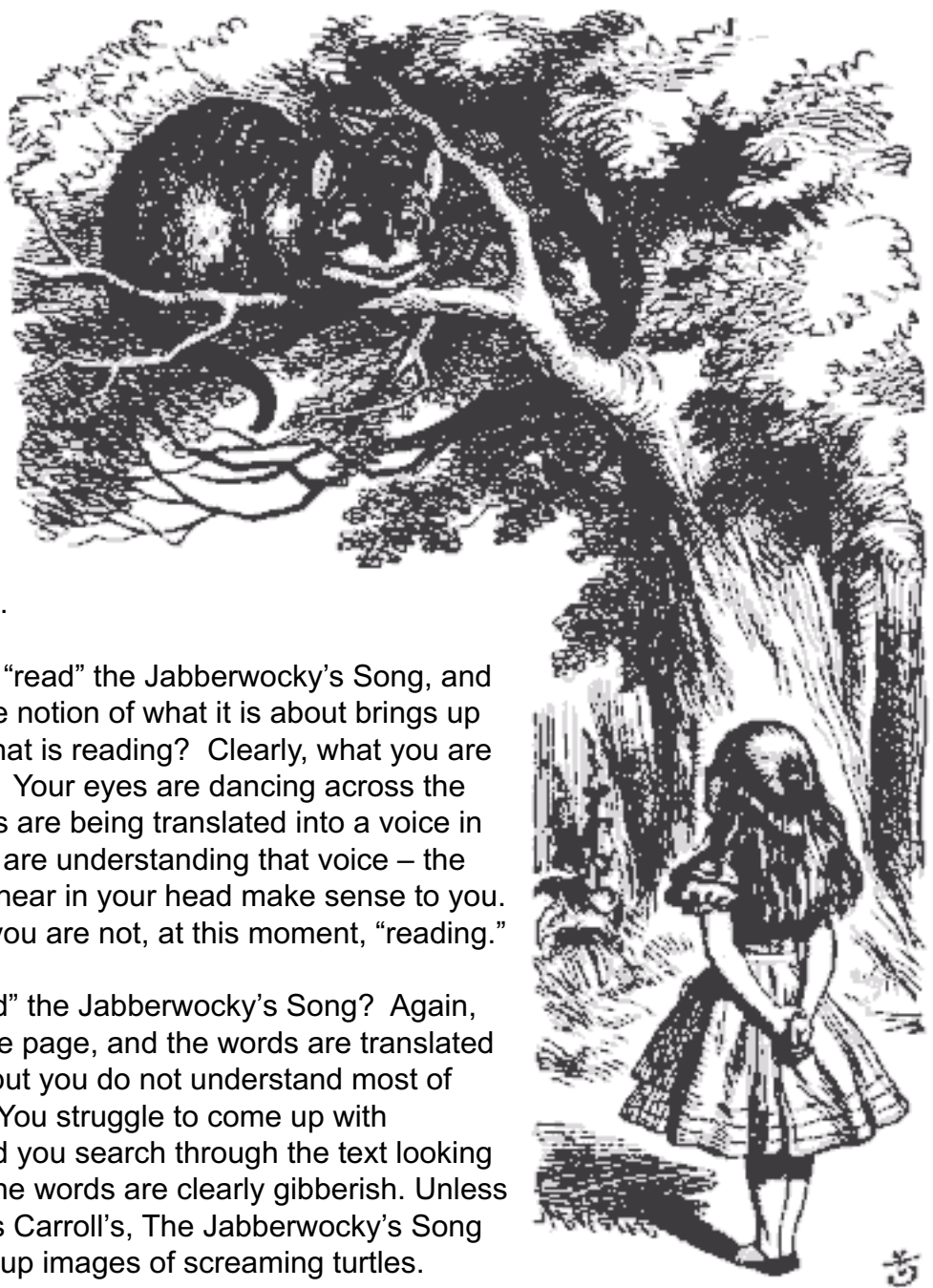
*'It was evening, and the smooth active badgers
were scratching and boring holes in the hill side
the parrots were all unhappy
and the solemn turtles shrieked.*

There, does it make sense now?



This poem, at its heart, makes little or no sense, but if it doesn't make sense, how do we read it? Most of the individual words probably have no meaning to you (although they apparently did for Lewis Carroll), and yet you "read" them. The passage as a whole does not make much sense, and yet you treated it just as you would treat a passage that makes perfect sense – you examined and decoded each word in turn, just like you would do with any sensible passage. These words did not make much sense once you

decoded them, but you understood that there was nothing wrong with the way you decoded them; there was something wrong with the words themselves. You did not try to substitute words that did make sense – nor did you attempt to impose a meaning. You accepted that either the poem does not make sense, or it is written in a language you do not understand (perhaps you assumed it was Gaelic or Old English).



The fact that you could “read” the Jabberwocky’s Song, and only loosely derive a vague notion of what it is about brings up an important question – what is reading? Clearly, what you are doing right now is reading. Your eyes are dancing across the page of text, and the words are being translated into a voice in your head. Moreover, you are understanding that voice – the words and sentences you hear in your head make sense to you. Nobody would argue that you are not, at this moment, “reading.”

But can you really “read” the Jabberwocky’s Song? Again, your eyes dance across the page, and the words are translated into a voice in your head, but you do not understand most of what that voice is saying. You struggle to come up with plausible explanations, and you search through the text looking for clues to meaning, but the words are clearly gibberish. Unless you have a mind like Lewis Carroll’s, *The Jabberwocky’s Song* probably does not conjure up images of screaming turtles.

The problem is that the term “reading” is ambiguous. In the vernacular, “reading” is used indiscriminately – you can “read” numbers, you can “read” a map, you can “read” a situation, and, of course, you can “read” a book. Computers are said to “read” a program, they “read” information on a floppy drive, and now we have text-to-speech translators that allow your computer to “read” a passage of English text aloud to you using a simulated voice. Do we mean the same thing when we use the term “reading” in all of these different contexts?

This ambiguity of terms is one of the reasons why we use such technical terms to describe different reading-related behaviors. For example, when a computer is translating text into speech and is “reading” text aloud, those of us who study reading would describe that as “decoding.” The computer does not comprehend any of the text – the computer has simply

been programmed to apply some algorithms to translate text into speech. Those algorithms have two basic parts – one part involves a list of words that the computer simply knows how to pronounce – the irregular words such as “colonel” and “aisle.” This list of known words could be described as the computer’s “lexicon.” The other part of the decoding algorithm is a set of rules for translating English text into speech (these are not the familiar “phonics” rules – those rules are not useful for this task). This algorithm would be described as the computer’s “cipher.”

Thus, when a computer translates text to speech, the computer applies two basic algorithms – one algorithm checks the lexicon

to determine if the word is a familiar irregular word. If it is not, the computer uses a cipher to translate the text to speech. This whole process, because it works for both regular and irregular words, would be described as “decoding.” And because there is no comprehension involved on the part of the computer, it would not be technically described as “reading.”

Right now, as you read this text, you are using similar algorithms that a computer uses to decode the text, deciphering the regular words and referring to your lexicon to figure out how to pronounce the irregular words. However, you bring in another processor – a speech comprehension processor – to make sense of the text you decode. While a computer can never be more than a decoder of text, you at least have the potential to truly be a reader.

However that potential is not always realized. When you and Alice look at the Jabberwocky’s Song, unless the text conjures up images of frenetic, burrowing badgers and mirthless parrots in your mind, you are no different from a computer, decoding the text and filling your head with incomprehensible ideas.



Illustrations are by Sir John Tenniel and A. E. Jackson