Feeling the way through programming languages

- Everyone is familiar with the image of a person in a dark room, finding their way by touching what's in front of them. Where vision breaks down, touch takes its place. We can see with our hands.
- 1. We are less familiar with it, but the reverse is also true. When touching is impossible, our sight can help us out. It is possible to feel with our gaze.
- 2. Realizing this can help us better understand why some programming languages are pleasing for the eyes while others are so painful to look at.
- 3. In Python, it is conventional to prefix functions that the programmer does not want others to use with an underscore. This works because reading such a name, for example _fnord, is quite painful. It feels as if the pointy end of the underscore stabbed the readers' eyes.
- 4. Putting the underscore at the other end or in the middle, as in fnord_ or immanentized_eschaton, does not cause such issues, as the gaze slides over it instead of running into it head first.
- 5. The distance between symbols also determines the painfulness. Leaving more space between characters lets the gaze pick up speed, greatly amplifying the impact of suddenly coming across an unpleasant symbol. Jumping from the end

- of a line to a new line is a great distance and can be especially painful.
- 6. This explains why languages with syntax that resembles C's own are so unpleasant to use. They are full of thorny symbols that are painful to read. While most tasteful style guides rightfully recommend putting the opening brace { on the same line to minimalize velocity, putting the closing brace } as first thing on a new line still causes unnecessary strain on the reader. Its sharp ends impale the gaze like the bulls of the horn.
- 7. Some languages, like Smalltalk or Prolog, minimize the pain their code can cause for the eyes. Their unique syntaxes are appreciated by sophisticated programmers, but we must recognize that they don't go far enough.
- 8. Just as some characters can have a negative effect on the eyes, others can be pleasant to look at. There exists code that relaxes and heals the gaze.
- 9. The most perfect characters for reading are the parentheses. The gaze gracefully glides over them, eased by the smooth, curved lines. It is relaxing for the eyes. This is why Lisp has the most perfect syntax, and why it wouldn't work with any other pair of characters.