354C Writing Brief
Structure of assignments

The setting

You are to assume the role of a professor or graduate student reviewing scientific papers from the neuroscience literature. The reviews respect the scientific writing conventions. Scientists are referred to by their surnames, e.g. Jones and an papers are cited as:

Jones, 2016 in the case of one author

Jones and Smith 2016 in the case of two authors

Jones et al in the case of three or more authors were Jones is the first author.

Review structure

The overall structure of your review would a "T3' format.

"Tell them what you are going to tell them"

In the introduction the reader wants a precis of the paper's setting and main result, followed by a short summary of your critique's main point.

"Tell them"

This is the main focus of your paper: its arguments for your point of view. They can be positive. *the paper advances science because before its result we believed X and now …,* or negative *"the paper makes a promising start but has the following shortcoming …"*

In elaborating on these points, it is important to use a logical argument or statistical argument.

Ex of the logical tack: "Since the cells track the resolution of cells in the retina, humans confine their area of very high resolution sampling to a small one degree diameter fovea. To have good resolution over all of the visual field, would require a 300 pound brain to accommodate all the needed cortical cells."

Ex of the statistical tack: "If the radom spike patterns were counted to produce an high-fidelity numerical estimate, we would need an enormous number of them. Estimates range in the thousands for a just small image patch."

No-nos; unvarnished value judgements: "it was a nice paper.

Some writing style tips

Good writing takes advantage of the serial nature of sentences to use them to successively introduce material in a way that makes the the understanding of the subsequent material easier.

Know the difference between the use 'which' and 'that.'

NEVR start a paragraph with an unbound 'this.'
"This makes us think that the number of subjects was insignificant to achieve the levels of accuracy needed." This WHAT? Your reader has to backtrack to find out.

Good writing is never finished; it is always to take one more pass through your paper and improve it. Read the paper aloud. If it's sounds odd to you, it is highly the grader will have the same opinion.

Know when *its* and l*ets* need an apostrophe.

If you want to lose points, misspell something.