By now, you've probably heard of a fMRI machine. It's a device that allows people to see how their brain reacts to various stimuli, like watching TV or having someone talk to them. The video above is an explanation of the fMRI machine and its uses (and it even mentions one time where scientists used it to study what happens when you're told you're drunk). The coolest part about the last bit in the video is where they show us all these different colored boxes. One color indicates activity in certain parts of your brain; for example, yellow means activity in your left temporal lobe (you can check out our post on this here). They also have something called a blood oxygenation level dependent (BOLD) map. If you can analyze the BOLD signal from your brain, you can see which parts of your brain are active. This post is going to be a short one because I'm going to talk about how I used fMRI to learn more about the female brain. Since it's a relatively new field, there isn't a lot of information on this topic... so I'm going to have to go off memory here and hope that my memory is as good as it ever was. The fMRI machine is pretty simple on the outside. This is not my fMRI machine, so I apologize for the lack of pictures. There are basically three things involved in an fMRI study: 1) data collection, 2) data analysis, and 3) results. Let's talk about each one in more detail, with some examples from my study. 1. Data Collection - Generally speaking, research is done best in controlled environments (this is why most researchers don't like it when participants text during experiments). - Usually this means you'll have to come into the lab to participate in the research. - Or, if you're lucky, you can do online research. - If that's the case then you might end up using something like Amazon's Mechanical Turk service. - The tester will provide tester instructions on how to complete the experiment, which are reviewed by a moderator. - Then they submit their data via web upload or some other way provided by the company (Amazon). 2. Data Analysis - This is where it gets interesting...you pour through hundreds or thousands of images and analyze them for changes in blood oxygen levels, etc.. - In my research I used a program called SPM (Statistical Parametric Mapping). - This program will take your data from the fMRI machine and transform it into a 3D model of your brain. - Then you can compare different models to see how they differ from each other. 3. Results - Like I said before, this is a relatively new field, so there aren't a lot of results to look at yet. - A lot more research needs to be done on this subject before we have any truly relevant results.

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