Pick Your Brain

This weeks column is brought to you by S.L Hager who is a novelist and an ex medical practitioner. Monsieur Hager is a cruiser of the GenderdynamiX forum but refuses to reveal his forum identity for reasons unknown to T-man.

Pick Your Brain by S.L. Hager

My dearly departed mother had a reason for my gender nonconformity. I once overheard her telling one of my narrow minded and intolerant Church of Christ relatives that gays 'can't help it'--- it isn't a choice, because homosexuals and the like are born with a birth defect.

As it turns out, she wasn't too far off, at least in terms of trans people: Sort of recent research into the brains of straights, homos and transsexuals has finally given those who need a reason, something to consider---although I would call it a difference rather than a defect.

There is, among other things, a biological indicator (I didn't say cause) for transexualism, but if you want to be certain that the finding applies to you, you'll have to let someone pick your brain.

No, I mean literally pick your brain, as in…. you have to die and donate your brain to be sliced, stained and measured. Technology isn't such that a scan can be performed to 'test' for transsexualism. Science has found a thingy in the brain that thinks and acts the opposite of the thingy found in the pants, as it pertains to transsexuals. Before we can talk about what is so different about this doodad when it comes to trans people, we have to discuss what it is, and I know that a lot of you hated biology in school. (If neuro anatomy makes you want to puke, then click off, but come back soon)

First of all, it has a name as big as the QE2, so let's give it another name for now: Streisand's Terminal, as in Barbra Streisand is so popular, they named a bus terminal after her. That's hagerspeak for Stria Terminalis, which is short for the Central Subdivision of the Bed Nucleus of the Stria Terminalis (BSTc). It's that red, stringy, double backward C shaped thingy inside the blue brain in the picture above.

Naming it after Streisand is nice because it sings out sex signals to several structures in the brain. Saying that it has a terminal is a good thing too, because it is a kind of highway; it's a cable of fibers that bus nerve signals through the brain, and where it hooks up with the hypothalamus, one finds a 'bed' (nucleus) in the 'terminal' to rest in.

Messages that have to do with sexual function pass through this cable, which delivers them to other squishy- icky thingies in the brain, and when these signals get to the 'terminal' (bed nucleus), I bet they positively flood the hypothalamus with sex speak. And the hypothalamus listens; it has everything to do with the stimulation and manufacture of hormones like testosterone and estrogen, and it elicits sexual behavior[i] (Ooo! I love sexual behavior!) Streisand's Terminal does some other things too, but let's keep to the topic.

Let me give you the bottom line because I'm allowed only so much space and I'm not sure I will live long enough to explain all the boring details: Streisand's Terminal is smaller in male to female transsexuals (MTF), regardless of their sexual orientation, than it is in genetic males-- regardless of their sexual orientation. Streisand's Terminal is in the same range for male to female transsexuals (MTF) as it is in genetic females. I can't say &Idquo;regardless of their sexual orientation" as it pertains to the genetic females in these studies, because from what I can tell, it looks like all the female &Isquo; subjects' were presumed heterosexuals. You must keep in mind that these are post mortem studies and to get a brain, someone must give a brain. Although the families of the subjects were beyond generous in donating organs for study, one can't always…well…pick and choose, if you'll forgive the pun. That's why there was only one brain belonging to a female to male (FTM) transsexual, and you want to know what? The FTM Streisand's Terminal was larger than the genetic female terminals, and within the same range as the genetic male terminals. I'm starting to see a pattern here.

In order to prevent a potential fly in the ointment (where did that saying come from? It's disgusting.), some other things were measured as well. For example, the brains of people who suffered hormone imbalances from genetic disorders, trauma, tumours, menopause; AIDS and etc. were probed as well, leading to the impression that hormones, either present or absent after birth, don't do a damn thing to change the structure of Streisand's

Terminal.[ii]

Rather than listening to Barbra sing another round of On A Clear Day, I think we should leave her at the bus terminal and move on. Maybe someday, perhaps even on a…clear day, this sort of information will be brochure-ready for those who need to find a comfortable reason for why we are different. Not mean people-- they are going to stay unkind and malicious no matter what they read. I'm speaking of the people who care about us but have a real hard time understanding why we aren't like them. I wouldn't mind having something convenient for my relatives to pick at as they step out of church… Something other than my brain.

[i] From: http://everything2.com/index.pl? node=stria%20terminalis: Sources: The Penguin Dictionary of Psychology, by Arthur S. Reber Glossary of Neuroanatomical and Neurological Terms, http://www.umanitoba.ca/faculties/medicine/anatomy/neuro/gloss/s.htm
The Amygdala and the Emotions http://www.benbest.com/science/anatmind/anatmd9.html
"Transsexual Brains", Josie Glausiusz, Discover Magazine, January 1996

[ii] Kruijver FPM, Zhou J-N, Pool CW, Hofman MA, Gooren LJG, Swaab DF. (2000) Male to female transsexuals have female neuron numbers in a limbic nucleus. Journal of Clinical Endocrinology and Metabolism 85(5):2034- 2041.