**Psy 331.03 Advanced Laboratory in Operant Conditioning**

**Dr. Val Farmer-Dougan**

**Study guide Week 14: Genetics, Environment and Individual Differences**

**Wayne, R.K. & Ostrander, E.A. (2012). Lessons learned from the dog genome. TRENDS in Genetics, 23, 557-567.**

1. What is the genome project and what is it trying to do?
2. What makes dogs a unique subject to study in terms of genetics? What kinds of genetic differences and history do dogs have that are unusual?
3. What are the four (possibly 5) main subgroups of dogs, according to the dog genome project? Using the colored chart in the pdf or the powerpoint, what category is YOUR dog in? Do you think this is a good fit? Why or why not?
4. What diseases have been linked to specific genes in dogs? Why is this important for both dogs and humans?
5. What is the C-BARQ and what is it used for?
6. What is the AKC and Breed-specific dog groups’ official position on the treatment of deaf dogs? Do you agree or disagree with this position? Why?

**Farmer-Dougan, V.A., Quick, A., Harper, K.,   Schmidt, K., &Campbell, D. (2014).**

1. Why did Dr. Farmer-Dougan focus on deaf vs. typical dogs in her submitted paper?
2. What kinds of genetic disorders result in loss of vision and hearing? Are these disorders common? How might they be controlled?
3. Describe the method used in Dr. Farmer-Dougan’s submitted paper.
4. What were the results? That is, what differences were found between deaf and typical dogs?
5. Having had experience with several dogs in our class who are deaf, blind or deaf/blind, do you agree with the results of Dr. Farmer-Dougan’s paper?
6. What kinds of training might help their new owners train the dogs with disabilities? Who could provide this training?

**Things to Think About**

1. Why is it so important to understand breed differences across individual dogs?
2. Can knowing breed differences potential bias a behaviorist? That is, could you attribute a behavioral difference to a instinctive breed behavior and “miss” an environmental cause?
3. Why is it important to understand how disabilities affect dog behavior? Again, is it possible to “miss” an environmental cause because a behaviorist assumes the difference is due to biological differences?
4. How can a behaviorist balance the need to understand genetic and biological differences across dogs with a focus on understanding environmental causes of behavior?