**Why Didn’t We Match? -- Handout**

**Introduction.**

* We are sometimes surprised when we do not match certain 3rd or 4th cousins.
* We may be equally surprised when we match distant cousins.
* In this class, we explore the reasons for this surprise matching and also suggest ways to find certain matches who did not score high enough to be official matches

**My 3rd Cousin, My 5th Cousin, and Me**.

* Jim F is my 3rd C 1R. We scored 24 on Ancestry, about what was expected.
* Sean is my 5th cousin. We did not match on Ancestry.
* Jim F and Sean are 5th C 1R, but they matched with a score of 25 on Ancestry.
* On GEDMATCH, Sean and I matched with a 13, and with a number of shared matches.
* On GEDMATCH, the 3 of us had an excellent triangulation.
* On My Heritage, the 3 of us matched once again.
* The message of all this is that DNA results show definite patterns, but randomness plays a part.

**Your Assignments**.

* Get your data on 4 DNA sites: Ancestry, My Heritage, FTDNA, and GEDMATCH.
* Post your data on each of these sites.
* Work with key matches to get access to their Ancestry data – collaborate.

**Parents and Children**.

* We examined 33 cases of parent-child data.
* On an individual basis, the averages do not apply, in fact, for about 25% of the cases, there is little change in the cM scores from one generation to the next.
* This finding may help to explain how it is that some cM scores remain relatively unchanged for several generations.

**The Case Study for Ida, a 7th Cousin**.

* Ida had a high score of cM = 34 with me on My Heritage; and, she scored 35 with Sean on that site.
* On Ancestry, Ida had scored 32 with me.
* Ida had posted an excellent, detailed tree which showed a connection with me at the 8th generation level.
* Ida and I had 100 shared matches on My Heritage; we had 58 on Ancestry. Ida’s shared matches fell predominantly with my early Tracy matches which would be expected.
* Ida matched Sean, but did not match Jim F.
* Because we can expect as many as 10%-15% of our matches to score much higher (or lower) than expected, it was no special surprise to find a match like Ida. Nevertheless, randomness still plays a part.
* Blaine Bettinger’s data corresponds with my own findings about the good possibilities of finding 6th, 7th, and 8th cousins. Bettinger’s data had some 7th cousins scoring ever higher than my Ida.

Different DNA Companies and Different Scores.

* Most typically, FTDNA will offer a higher score than the other companies, while Ancestry will offer the lowest, most conservative score.
* The other companies will typically score in between those extremes.
* In general, the scores from different DNA companies will fall within a reasonable range and will not vary more than 15-20%.
* However, sometimes there are major disparities in scores between companies, and for these cases, we should do further analysis to see which one seems the most reasonable.

Case Studies of Divergent Scores.

* Szobolai scored 43 on GEDMATCH but only 12 on Ancestry.
* We found her GEDMATCH results showed a good number of known Tracy matches; also, the GEDMATCH browser showed good triangulation with solid Tracy people.
* On Ancestry, she had a low score but she also had over 40 Tracy family matches, mostly with 2nd cousins, so she is definitely a solid Tracy match.
* The Ancestry match must have considered endogamy or other factors for it to be so low.
* Bobby scored 41 on GEDMATCH but only 8 on Ancestry.
* GEDMATCH results showed numerous shared matches so she looked like a solid Tracy match there.
* But on Ancestry, she had only 3 shared matches with no conclusive results. Again, there must have been either endogamy or other factors considered by Ancestry.

**People Who Should Match But They Don’t.**

* Sometimes we wonder why we don’t have a match with a known 3rd or 4th cousin.
* Ancestry, until Aug 2019, used to have DNA Circles, a feature which helped with this problem, but that feature has been swapped out for Thru Lines, which does not help us in that same way.
* The DNA Circles used to show a DNA Circle for a specific ancestor. Included in the circle were other descendants that were a match for you, and another group who matched people in the circle but did not match you.
* As an example, I showed a DNA Circle that included Oliver, a non-match for me. However, Oliver matched other people in the circle, had a proper paper tree, and had 19 shared matches with people who did match me.
* Thus, it seemed more than reasonable that Oliver was indeed my good bona fide relative and a person who “should” have been a match.
* But, sometimes there is a negative randomness in the DNA make-up, and in this case Oliver didn’t match me.
* With DNA Circles, I found a number of people who were non-matches but who were definitely solid relatives. It would be valuable to find people like that, but we need another way to do it.

**Collaboration and Thru Line Data Will Be the Answer**.

* To find non-matches who are actually good relatives, we now need to use our collaboration capabilities.
* As an example, we looked at my 2nd C 1R Debbie and her Thru Line data.
* Debbie is a descendant of Elijah Ellifritz, just like I am.
* In her Thru Line data for Elijah, the data shows a number of descendants that I had not matched with. Just as I had verified that Oliver was a bona fide match using DNA Circles, now I could use Debbie’s Thru Line data to analyze these potential relatives who would otherwise have been unknown to me.
* I presented a similar example for my Bruce family, which has been challenging.

**Thoughts About Increasing Our Number of Matches**.

* Some DNA researchers have suggested that low scores for possible matches are suspect, and we should be wary of including low scoring matches in our database.
* I would prefer to move your thinking toward increasing your number of acceptable matches.
* If a match has a low score, such as 8 or 9, we can look further at that match’s data. Suppose we look at the low scoring match and see that he has a bunch of shared matches with known kin; that would suggest that he is probably a bona fide match after all.
* And now, we have discussed the point that even many of our non-match people may actually be bona fide matches.
* Certainly, we don’t even expect many of our 4th or 5th cousins to make the cut and be designated a match, yet many of them are actually matches.

**Conclusions**.

1. When you do not match a 3rd or 4th cousin, he may still be a bona fide cousin – you need to check further

2. Maybe your non-match cousin matches you on another DNA site, or he may match a known cousin, and maybe has lots of shared matches

3. Different siblings or different 1st cousins may have markedly different matches with 4th, 5th, or 6th cousins – analyzing different data may help

4. You or your cousins may have solid matches with people who are 5th, 6th, or 7th cousins – 10%-15% of matches score higher than expected

5. Different DNA companies give different scores, sometimes very different – look further to see which one is best

6. Remember your assignments: get your data on 4 DNA sites; post your data; make arrangements to collaborate with key matches

7. Remember the old DNA Circles and how they helped ID possible matches – use Thru Line data from collaborators to do the same thing

8. You have a lot of useful low scoring matches – and you have a bunch of matches who just didn’t score high enough but they are matches