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EDITOR'S CORNER: DAR VERSUS DNA

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Editor's Corner

DAR versus DNA

The May/June issue of the magazine of the Daughters of the American Revolution (DAR), *American Spirit* has an interesting article on the use of DNA in genealogy entitled, "Meet Your Match." This article was included in *American Spirit* apparently to introduce DAR members to the idea of using DNA in genealogy, but, perhaps more importantly, to "explain" why at the present time, DAR rejects any DNA evidence submitted as a part of an application to DAR membership. Such applications must prove descent from an ancestor who fought for, or provided certain support to, the colonies' cause in the Revolutionary War.

The article represents a fairly balanced introduction to the subject, but the part that supposedly explains why DNA evidence can't be used to support the documentation of a lineage in an application, leaves anyone knowledgeable about the uses of DNA in genealogy to scratch his head in amazement.

The article quotes the chair of the DNA Committee of the DAR Genealogy Department, Thomas Ragusin, as follows:

For example, if two men with the same surname match 37 markers tested, we would only know they are related within six generations, 50 percent of the time. If we wish to improve the accuracy to a reasonable level of about 85 percent, then we can only know they are related within 15 generations. Fifteen generations exceeds the length of all DAR applications submitted to date.

Now, in fairness to Thomas Ragusin, the author of the article was probably looking for a catchy sound bite, rather than a reasoned analysis, and likely, that was the main consideration for inclusion of that quote in the article. However, whatever the reason, we now have a rather ridiculous statement on the record as to why DAR won't accept DNA evidence.

The issue was taken up on the ISOGG Yahoo DNA list and discussed further, a few posters being understanding of the DAR's position and many others were quite strongly critical, pointing out the problems in the DAR's logic.

Those offering support of the DAR position largely echoed Ragusin's statement that DNA cannot prove descent from a Revolutionary soldier. In the strictest sense, this is correct, but this is basically a straw man,

and not at all what supporters of DNA testing have proposed. However, one of the most incisive comments on the Rootsweb list came from Roberta Estes, and she quite skillfully demolished the DAR's "reasoning." Ms. Estes made three main points, which I quote here:

1. DNA can be used to prove the individual is NOT biologically descended from the patriot, regardless of what the genealogy says. I'm curious if they won't accept it as positive evidence, will they accept it as negative evidence?

2. The DNA matches, or near matches, to the DNA of the patriot, [may] indicate a common paternal ancestor. In this general case, the exact ancestor cannot be identified without additional genealogical information. DNA information would be taken as further confirmation of whatever the genealogy indicates, but cannot stand alone.

3. There are some unusual cases where a line marker mutation can be proven to have occurred in a specific son's line from a particular man [e.g., a patriot]. This is done by using the triangulation method and yes, you'd need to have the DNA of two other sons to effectively do this. However, if a mutation exists for a particular line, and especially if it is a rare mutation, meaning the frequency of the allele that the value has mutated to is low, lessening the possibility that it spontaneously occurred in another line, then I think a reasonable case could be made that in this type of situation, one could conclude that an individual was indeed a descendant of a particular individual, especially if there is any reasonable genealogy information to go along with the DNA information. Unfortunately, case 3 cannot be determined in a vacuum, and one would have to have some rather advanced knowledge about DNA for genealogy to be able to really ascertain if a case that was prepared using this kind of evidence was valid or not. Using the standard TMCRA tables is NOT how to do this.

To me, these points are quite devastating to the DAR position. The DAR has decided to reject ALL DNA evidence, because it can't pass their ultimate test—can it prove from a living person's DNA results, that they are patrilineal descendants of some Revolutionary War patriot? Well, of course it can't, yet, who has ever suggested that DNA evidence could do that? And, what other single type of evidence could do that?

An analogy may be useful here. Census records are often used to establish a lineage, both within and outside of the DAR process. Can census records “prove” that a particular Revolutionary War patriot was the ancestor of an applicant? Of course not. So, does the DAR reject all census records? Of course not. Census records, can, however, help prove the case for certain links in the lineage. The census records are simply considered as one part of the case for the links in the lineage, and all of the different types of evidence must be considered together.

DNA evidence is no different in this regard from census records. One may be able to use DNA evidence, along with census records, estate records, land records, and other forms of traditional genealogical evidence, to help establish one or more links in a lineage. The idea that DNA evidence should be rejected because, by itself, it usually cannot establish a lineage between a living applicant and a Revolutionary patriot, or because the normal TMRCA calculation has a large uncertainty attached to it, is completely ridiculous. No one should ever think of using DNA data in the way that the DAR describes it.

Normally, the proper use of DNA evidence would be to corroborate the case that an applicant establishes, using traditional methods of genealogical research. However, in unusual cases, as Ms. Estes’s point number three suggests, it may sometimes be possible, by testing multiple living individuals, that a particular rare mutation occurred in a particular ancestor, thereby marking all of the patrilineal descendants of that person

with the same mutation. In such cases, it may be possible to use the DNA evidence to “skip over” one or more otherwise problematic links in the lineage and establish the overall lineage. Such cases would require that the staff at DAR be sufficiently well versed in the DNA field that they could make an independent evaluation of the DNA evidence that is used, and that would involve an assessment of the probability that the DNA match could occur in an unrelated individual. Even in those cases where the DNA evidence can be used in this way, traditional evidence should also be included to show that the lineage is at least plausible on traditional grounds.

While I would not wish to minimize the challenge to the DAR staff in applying the proper analysis and making the proper judgment in the case of DNA evidence, or to applicants making the appropriate case, the DAR will undoubtedly eventually have to change its policy. The Sons of the American Revolution and the Society of Mayflower Descendants have shown that an organization need not reject DNA evidence completely. A lineage society should simply allow its applicants to use DNA evidence when it is appropriate to help make his or her case. If an applicant submits an application with inappropriate use of DNA evidence in trying to prove a lineage, then the application can be appropriately rejected, just as it would do with the inappropriate use of any other type of evidence. Rejecting DNA evidence, regardless of how it might be used, is just plain silly.

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