

**Solving Family Mysteries with DNA Boot Camp**  
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## **Talk 1: Mirror Trees**

### Uses of Mirror Trees

1. Determine how your matches are related
  - a. To you
  - b. To each other
2. Applications:
  - a. Unknown parentage
  - b. Breaking down brick walls in your family tree

### Mirror Tree Definition

1. Tree based on a match's tree
2. Can be called a duplicate tree or other name
3. Needs to be done on AncestryDNA.com
  - a. Takes advantage of Shared Ancestor Hints

### Mirror Trees Use Autosomal DNA

1. General Rule: The more autosomal DNA you share, the closer the match
2. See the following handouts.
  - a. **"DNA Detectives Autosomal Statistics Chart"** has information on how much DNA is shared with various relationships.
  - b. **"How to Determine How Much Autosomal DNA You Share"** has information for each DNA testing company on how to see how much DNA you share.

### Mirror Tree Steps

1. Find match of interest to mirror
  - a. Who?
    - i. Unknown parentage – start w/ closest match
    - ii. Brick wall – "relevant match"
    - iii. Match can be from AncestryDNA, FTDNA, 23andMe, Gedmatch, or MyHeritage
  - b. Ideally match has a tree
  - c. If not, look at their Shared Matches
    - i. Or build one for them
2. Reproduce their tree
  - a. New tree
    - i. Name It: "Experimental Tree" or "Test Tree"
    - ii. *Make the tree private & unsearchable*
  - b. Also can add to your tree
    - i. For testing theories & breaking down brick walls
    - ii. *During your test, make the tree private & unsearchable*

- c. Mirror Tree Specifics on How to Build It
    - i. Copy what's in match's tree
      - 1. Build back further with Tree Hints
    - ii. Add only direct ancestors of match
      - 1. Quick & dirty
      - 2. Use Family Tree Hints
        - a. Top ones have most sources/records
        - b. Do they agree?
        - c. Does only 1 have parents? That's OK!
    - iii. You can always source it later
  - d. Mirror Tree Recommendations
    - i. Try to go back
      - 1. at least 5 generations
      - 2. the same amount on all lines
    - ii. "Sweet spot" – people born 1775-1800
    - iii. Remember – There are many situations where there were few families who intermarried.
      - 1. Everyone's related to the founders.
      - 2. Result: You're related to your matches on multiple lines, which isn't helpful.
3. Attach your DNA to that match
- a. In DNA pull-down menu, select View Another Test (if you administer more than one kit)
  - b. Pick the right test taker (if you administer more than one kit)
  - c. Click on Settings
  - d. Scroll down to Family Tree Linking
    - i. Pick the right tree & person (the match on which you based your Mirror Tree)
4. Wait for Shared Ancestor Hints (SAHs)
- a. SAHs take hours or days (and can slowly arrive)
  - b. SAHs require that your DNA matches another person + that person has the same (that is, shared) ancestor(s)
  - c. Thus, SAHs require a tree (your Mirror Tree) & your DNA attached to it
  - d. SAHs can be accessed from several places
    - i. DNA home page
    - ii. Genetic Families (a new feature)
    - iii. Your match list
    - iv. *SAHs are indicated by a green leaf.*
    - v. SAH even work if the tree is locked.
      - 1. If it's locked, see if they have Shared Matches whom you know
    - vi. Click on a match with a SAH
      - 1. This will show you your shared ancestor(s) & how you both descend from them
        - a. How you descend will assume that you're the person to whom you attached your DNA

- b. SAH shows you an ancestor/ancestors that are shared by two of your matches.
  - c. This indicates that these are also your ancestors.
5. Determine most likely relationship to match
- a. How many centiMorgans (or %) do you share?
  - b. Companies relationship predictions aren't accurate
  - c. DIY
  - d. *See the 2 handouts listed above under Mirror Trees Use Autosomal DNA*
6. Build tree *forward*
- a. For unknown parentage work
    - i. Need to find
    - ii. Right person
    - iii. Right place
    - iv. Right time
  - b. Detective work (next talk)
7. Examples
- a. Breaking Down Brick Walls
    - i. Holes in your tree
    - ii. Theory?
    - iii. Yes, then in your tree:
      - 1. Add that person & their ancestors
      - 2. Wait for SAHs
    - iv. No, then look for matches fitting the bill
      - 1. Ethnicities & Locations
      - 2. Then build a mirror tree for the match

## **Talk 2: Best Tools for Researching Difficult DNA Matches**

### Great DNA Match, But...

1. No name
2. No tree
3. 1 Consideration:
  - a. new DNA testers sometimes just need time to post their tree
4. If they don't, then here are ideas, tips, and tools

### Who, Where, & More

1. Ask your match
2. Websites
  - a. Free
  - b. Subscription-based
3. What to do with that information
  - a. Contacting them
  - b. Building their tree
4. Examples

### Asking Your Match

1. Here's what to say:
  - a. Tell them who you are (name, location, your parents—but don't overwhelm them).
  - b. Tell them whose kit you match.
  - c. Say how you think you're related.
  - d. Tell them where they can find your tree.
  - e. Ask them
    - i. if they have a family tree or
    - ii. a specific question.

### Websites

1. Ancestry
  - a. Shared Matches
    - i. Pull up one match
    - ii. Click on Shared Matches (SMs)
    - iii. Do you know their SMs?
  - b. 23andMe tells you who your matches match also
  - c. FamilyTreeDNA does too (in-common-with)
  - d. Profiles:
    - i. Click on their (or their administrator's) link to get their profile
    - ii. Sometimes lots of information is in profile
    - iii. Use **orange** button for sending messages
  - e. Hidden Trees
    - i. Click on one match

- ii. Look down page for “Select a Tree to Preview” pull-down menu
2. Other DNA Testing Sites
    - a. Gedmatch & FamilyTreeDNA – provides email addresses
    - b. 23andMe – their messaging system
  3. Free Websites
    - a. Google & other search engines
    - b. Search Websites:
      - i. Pipl.com (good for aliases)
      - ii. Whitepages.com
      - iii. Spokeo
    - c. NewspaperArchive – free through libraries
    - d. LinkedIn, FaceBook
  4. Paid Websites
    - a. BeenVerified.com (my favorite)
      - i. Good for contact info, oftentimes provides parents
    - b. Spokeo & other’s paid version
    - c. GenealogyBank.com
      - i. Good for obituaries, articles about ancestors
  5. What to Do With That Information
    - a. Contacting them
      - i. See information under “Asking Your Match”
      - ii. Don’t tell them too much
      - iii. Adoption/unknown parentage situations might require more delicacy.
        1. Leah LaPerl Larkin’s form letter  
(<http://thednageek.com/letter-to-a-birth-parent/>)
    - b. Building their tree
      - i. Adding it to your tree
      - ii. Starting a new tree or unconnected branch
      - iii. (Back to Mirror Trees)

**Resources (General):**

- International Society of Genetic Genealogy – isogg.org
- Glossary of Terms - [http://isogg.org/wiki/Genetics\\_Glossary](http://isogg.org/wiki/Genetics_Glossary)
- International Society of Genetic Genealogy's Autosomal DNA Statistics - [http://isogg.org/wiki/Autosomal\\_DNA\\_statistics](http://isogg.org/wiki/Autosomal_DNA_statistics)
- DNA Detectives FaceBook Group - <https://www.facebook.com/groups/DNADetectives/>
- Short videos on genetic genealogy - <http://learn.genetics.utah.edu/content/basics/molgen/>
- Types of cousins explanation - <https://en.wikipedia.org/wiki/Cousin>

**Resources (Mirror Trees):**

- Blog Born in New Orleans has videos and blog posts about Mirror Trees; put mirror tree in the search box. <http://www.borninneworleans.com>
- DNA Detectives FaceBook Group - <https://www.facebook.com/groups/DNADetectives/> - has a file, "CREATING-YOUR-MIRROR-TREES.docx. You need to join this group to see the file.
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*Try the **Possible Relationship Calculator** at <http://dnahunters.com/possible-relationships-calculator/>. Input the shared centiMorgans (cM) (or % shared DNA) for a DNA match, and get the possible relationships to that match.*