

# Hypotheses Development to Solve Genealogical Challenges: Conflicting Evidence for George Joyce and the 1800 Census

by Dr. Jan Joyce Ahrens

In difficult genealogical problems, researchers often naturally develop one scenario, or hypothesis, that logically explains the situation. That working hypothesis takes root and then we move forward, supporting it without considering alternative hypotheses. Often we are on track. However, in more complex genealogical challenges, developing multiple hypotheses early can prove more successful to opening up our thinking, exploring additional possibilities, and arriving at a successful conclusion.

An extensive probate file triggered by the 1807 death of George Joyce from Menallen Township, Adams County, PA documented nine minor children. Five of the children were “of the second wife.” The other four children were born from the first wife. Of these four children, two were minors over the age of 14; documented as such because they could choose their own guardian. These two children had birth years between 1787-1794 based on 1808 guardianship records. Earlier, however, an 1800 census record documented a George Joyce in the same township with a household comprised of only one male and one female, both 26-44 years of age. Why weren't at least the two older children documented within the household? Thus, the research question becomes “are the George Joyces of the Menallen Township, Adams

County, PA 1800 census and 1808 guardian records the same person?”

### THE RISK OF A SINGLE HYPOTHESIS

After reading the above introduction to George Joyce, explanations come to mind that can respond to the conflicting evidence. These explanations are hypotheses – potential answers to research questions. Some researchers had one idea; others had two or maybe even three possible explanations.

In most scenarios, one hypothesis is sufficient. That hypothesis evolves as we gather additional information. It could be one hypothesis that is formulated, tested, reformulated and refined multiple times.<sup>1</sup> Often hypotheses are not based on evidence but rather they provide possibilities for researchers to develop and explain.<sup>2</sup>

However, one hypothesis is not enough when working on complex genealogical challenges. Many researchers stop after the first idea comes to mind and begin research to support that “working hypothesis.”<sup>3</sup> This could lead one to support an answer that ultimately is incorrect. That hypothesis becomes the “story” and logical explanation, and evidence is sought to prove it. This phenomenon, known as confirmation bias,<sup>4</sup>

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1 Birdie Monk Holsclaw, “From Hypothesis to Proof: Indirect Evidence for the Maiden Identity of Elizabeth, Wife of George Hagenbeger,” National Genealogical Society Quarterly 92 (June 2004): 96.

2 Thomas W. Jones, “Developing Research Questions and Hypotheses,” Advanced Genealogical Methods, 2016 Syllabus, Salt Lake Institute of Genealogy, (Salt Lake City: SLIG, 2016), Module 2, p. 5-6.

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can make the proof fit the hypothesis without further exploration. Because one potential answer has been identified, evidence is not sought for other scenarios. Whereas if additional explanations are identified early, a larger variety of information will be identified that can be used to refute or support multiple hypotheses. The following framework provides a method for developing and treating multiple hypotheses in difficult genealogy situations.

## THREE STAGES OF THE HYPOTHESES DEVELOPMENT FRAMEWORK

A challenging research problem has been identified. Perhaps it is a brick wall. It could be the presence of too many common surnames. Or maybe it is a case of conflicting evidence, like this one for George Joyce. Prepare by collecting all data, reviewing all available documents, information and notes.

Using a framework to create and manage hypotheses aids the genealogical research process. The first stage in the framework is the creation of hypotheses. In it, brainstorming and creative thinking occurs. Additionally, typical genealogical explanations are generated. In the second stage, the prioritization of hypotheses takes place. And in the third stage, the hypotheses are refuted or supported. These stages are described in detail below.

### STAGE I – CREATIVE HYPOTHESIS DEVELOPMENT

There are many proven methods for creative thinking and brainstorming. Four will be discussed here, but others could certainly be utilized. The ones that will be covered here include simplification, mind mapping, expository writing and genealogical categorization.

#### A. Simplification

It seems unnatural to reduce a formidable genealogy problem down to only a few basic facts, but such simplification can create opportunities for insights. Summarize the situation concisely with basic information. Brief sentences or bullet points are created and then reviewed. Generate as many hypotheses as possible after this simplification.

Expand hypotheses exponentially by inviting others to assist. In a conversation or email, provide the

bullet points to colleagues. Perhaps even provide it to someone untrained in genealogy research. Request all the hypotheses that they can produce. This process takes only a few minutes and can provide excellent results with fresh ideas.

As an example, the George Joyce case can be summarized in bullet points as follows and shared with peers. Include instructions not to perform any additional research.

- A 1790 census record reported one George Joice household. There were two males over 16, 1 male under 16 and 1 female in the household.
- An 1800 census record recorded one George Joyce household in the same township with 1 male and 1 female, both between the ages of 26-44.
- In the 1790 and 1800 surviving censuses, there were no other George Joyce (or any variant spellings) households nearby.
- A George Joyce died in 1807 in the same township.
  - 1808 probate records document his nine minor children:
    - Four of the children were born from the first wife. Two of these minor children were over the age of 14, therefore were born between 1787-1794.
    - The other five children were born from the second wife.

#### B. Mind Mapping

A second technique of creative thinking is mind mapping. Mind mapping is a method to let one's thoughts flow freely without the constraints of formats such as a formal outline like many of us were taught in school. Mind mapping usually begins by writing a topic in the middle of a blank piece of paper. In this scenario, "George Joyce of the 1800 census and 1808 probate papers – are they the same man?" is noted and circled. Next, scenarios are added that could answer the research question. Lines are drawn from the inner circle to these outer points and circled. This will look a bit like a hub and spoke system, and probably a bit

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messy. If a scenario builds on one of the points, a line is drawn from that circle to the new point and circled. Mind mapping has been written about extensively and used in various research situations.

Scenarios may include anything from the mundane to the ridiculous. Changing one's mindset from thinking that an ancestor was sweet and innocent to a potential scoundrel can prompt new ideas. Also, consider contemporary situations to help generate questions such as these:

- Did a great great uncle lose all his money gambling so he left his wife, children and town?
- Perhaps a 4<sup>th</sup> great grandmother was illegitimate, thus explaining why her DNA doesn't match others in the family.
- Was a great grandfather a bad businessman who lost all his property and possessions to creditors?

Figure 1 depicts a portion of how a George Joyce mind map may appear:

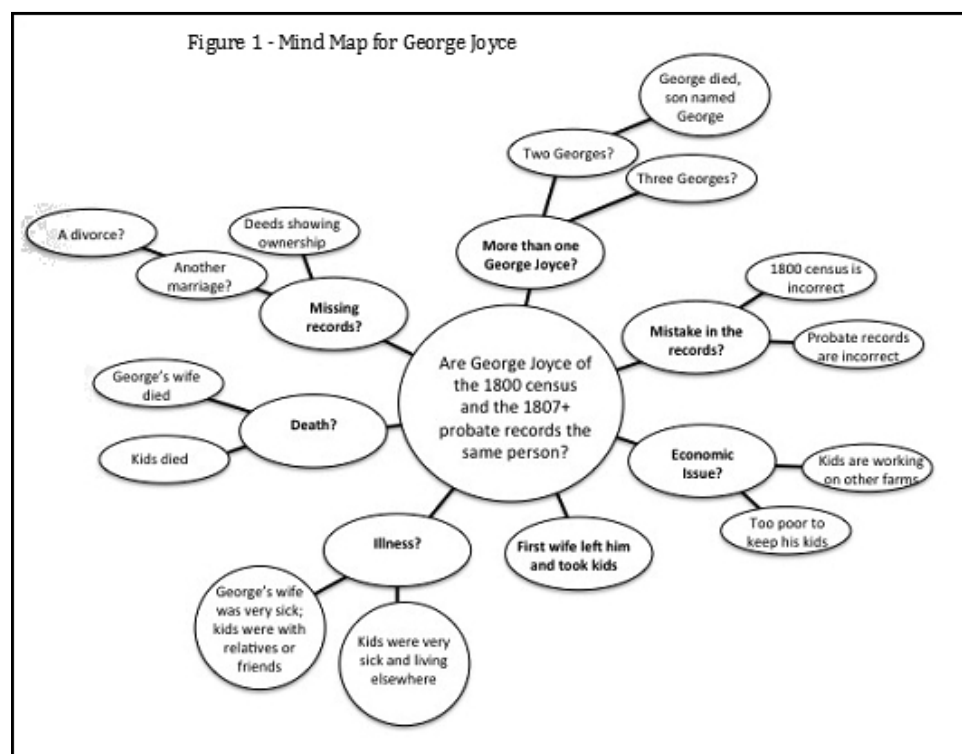
## C. Expository Writing

A third technique for creative thinking is expository writing. It is a style of writing that is explanatory and descriptive. It provides information in an organized format. The process of writing forces one to think differently and to fully develop the context around a situation; often uncovering insights that would not have otherwise been exposed. Depending on the genealogical challenge, the type of expository writing may vary. It could be descriptive, sequential, a comparison, or a cause and effect format. Choose the format, or a combination of formats, that fits the situation or suits a personal style best to begin writing. The output of expository writing may be a case study or research report for oneself or a client.

The George Joyce case summary below demonstrates a combination of descriptive and sequential writing – employing details as well as a narrative timeline. Due to the nature of expository writing, it is lengthier and more detailed than the first two methods of simplification and mind mapping.

### George Joyce – the 1790s

George Joyce first appears in a Pennsylvania tax record of 1789 in Menallen Township, York County, PA.<sup>5</sup> His name was nearly last on the 25-page list, in a category typically labeled “freemen”<sup>6</sup> indicating those men who were over 21 years old, did not own property, and likely were unmarried. George did not even own a horse yet, though



3 L. J. Cronbach, “Beyond the Two Disciplines of Scientific Psychology,” *American Psychologist* 30 (1975): 116-127.

4 ScienceDaily (<http://www.sciencedaily.com> : accessed 9 Feb 2016), “confirmation bias.”

5 York County, Pennsylvania, Tax Record Book 1789:25, George Joice, 1789; Tax Records, 1758-1988, York County Archives, York, Pennsylvania.

6 The tax records for years 1784 1785, 1786, 1788, 1789 did not include a label such as “single men” or “single freemen;” years 1783 1787, 1792, 1793, 1795, 1797 and 1799 did include the label.

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several others listed with him did. These indicators hint strongly at George's age near 21, and probably not much older.

York County tax lists that survive prior to 1789 include 1763-1767, 1772, 1778, 1779, 1783-1786 and 1788.<sup>7</sup> No George Joyce was documented in any of these, likely because he was not yet 21 years old, though other possibilities exist. Additionally, no George Joyce appeared in the 1786 Pennsylvania Septennial census.<sup>8</sup>

Just one year after the 1789 tax record, the 1790 U.S. Census<sup>9</sup> casts a bit of doubt on George's hypothesized age and single marital status because it recorded his household with 2 males over 16, 1 male under 16 and 1 female. These data would indicate that he was married and likely had a son. Census instructions to the marshals included that the "*enumeration shall commence on the first Monday in August next [1790], and shall close within nine calendar months thereafter*".<sup>10</sup> The 1789 tax record was dated 13 Feb 1789. The 1790 census record was subscribed on 31 Mar 1791. Thus, approximately 18-24 months elapsed between the recorded dates allowing George sufficient time to marry and have a child. The second male over 16 has not been identified. No marriage record can be found for George that proved when he married.

By 1792, George had saved some money and purchased 77 acres of land in Menallen

Township.<sup>11</sup> He apparently hadn't saved enough though, because he mortgaged 225 of the 300 pounds purchase price.<sup>12</sup> As was typical during this time period for a Pennsylvania deed, a wife's name was only included for the grantor, not the grantee. It was also atypical to have a wife's name listed on the recorded mortgage.<sup>13</sup> No wife was listed for George on either the 1792 deed or mortgage. Thus no evidence of a marriage had come to light yet.

In the 1793 Pennsylvania Septennial Census, there was a George Joyst household recorded in Menallen Township.<sup>14</sup> This enumeration, unfortunately, provides only the heads of household names in alphabetical order. So no household member information can be gleaned from it. A George Joyce was also documented paying taxes in 1793 and 1795 in Menallen Township.<sup>15</sup> On the 1793 tax list, his 77 acres of land were confirmed. On the 1795 tax list, George was recorded with 80 acres of land. It was not uncommon for some rounding of owned acreage, so it is likely the same property since there is no evidence of a land transaction. Then in 1796 and 1797 he was listed in the newspaper as having a letter awaiting him at the York post office.<sup>16</sup>

During the 1789 - 1790s period, we can determine that four sons were born to George and his first wife. They were documented in the guardian papers generated by his 1807 death. Approximate birth years for these boys were:

7 York County, Pennsylvania, Tax Records, search for George Joyce for years 1779, 1783, 1784, 1785, 1786, 1788; Tax Records, 1758-1988, York County Archives, York, Pennsylvania.

8 1786 Pennsylvania septennial census, search for George Joyce; database with images, "Pennsylvania, Septennial Census, 1779-1863," Ancestry.com (<http://www.ancestry.com> : accessed 11 February 2016); citing Records of the House of Representatives, Records of the General Assembly, Record Group 7, Box 1026; Pennsylvania Historical and Museum Commission, Harrisburg, Pennsylvania.

9 1790 U.S. census, York County, Pennsylvania, Mixed Township, p. 408 (penned), George Joice; digital image, Ancestry.com (<http://www.ancestry.com>: accessed 23 May 2015); citing NARA microfilm publication M637, roll 9

10 U.S. Census Bureau, History of the U.S. Census (<http://www.census.gov/history> : accessed 1 Feb 2016), "Census Instructions."

11 York County, Pennsylvania, Deed Book 2H:188, Thomas Griffith to George Joyce, 1792; Deed Books, York County Archives, York, Pennsylvania.

12 York County, Pennsylvania, Deed Book H:530, Geo. Joyce to Thos. Griffith, 1792; Deed Books, York County Archives, York, Pennsylvania.

13 In a survey of York County Land Records 1785-1793, only 25 of 350 mortgages listed a wife's name. See Mary Marshal Brewer, compiler, Land Records of York County, Pennsylvania, 1775-1793, (Lewes Delaware: Colonial Roots, 2002); citing York County, Pennsylvania, Deed Book H.

14 1793 Pennsylvania septennial census, Menallen Township, p. 47 (penned), George Joyce; database with images, "Pennsylvania, Septennial Census, 1779-1863," Ancestry.com (<http://www.ancestry.com> : accessed 11 February 2016); citing Records of the House of Representatives, Records of the General Assembly, Record Group 7, Box 1026; Pennsylvania Historical and Museum Commission, Harrisburg, Pennsylvania.

15 York County, Pennsylvania, Tax Records 1793:80 and 1795:(unpaginated), George Joyce; Tax Records, 1758-1988, York County Archives, York, Pennsylvania. No 1794 or 1796 tax records survive.

16 Diana Bowman, compiler, The Pennsylvania Herald & York General Advertiser, (Apollo, Pennsylvania : Closson Press, 1993), 52 and 70.

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- ~1789 – Newell<sup>17</sup>
- ~1791 – William<sup>18</sup>
- ~1796 – George<sup>19</sup>
- ~1797 – John<sup>20</sup>

George Joyce acquired 103 acres of land from Nathan Patterson in 1798.<sup>21</sup> This land was in Straban Township, York County, which is approximately 14 miles from Menallen Township. The 1798 Straban Township tax records confirmed this land ownership in which George owned 101 acres valued at 707 pounds.<sup>22</sup> The following year's tax record, 1799, in Straban recorded a George Jice with a log house and 103 acres. However, much of the information was crossed out and the word "unfortunate" noted next to it.<sup>23</sup> No explanation for this descriptor has been found.<sup>24</sup> He quickly sold that property to Christian Cashman in 1799. On the associated deed, it documents "*George Joyce and his wife Elizabeth...*"<sup>25</sup> This confirms that as of 1799, George was married to a woman named Elizabeth.

## George Joyce – the 1800s

George Joyce married Elizabeth Hewitt sometime before 6 Apr 1799 when they were both noted as conveying the Straban Township 103 acres to Christian Cashman.<sup>26</sup> The possibility exists that George's first wife (unidentified) was also named Elizabeth and it is she who is referenced in this sale. However, the marriage to Elizabeth Hewitt, while not found in a marriage record, was confirmed through the Quaker Record Menallen Meeting Minutes in 1800. Elizabeth was documented to have "accomplished her marriage by the assistance of a hireling teacher to a man not in membership with friends"<sup>27</sup> which indicates she was Quaker but George was not.

By 1800 George Joyce was recorded in the census for Menallen Township, Adams County. There were only two other George Joyces in the entire 1800 U.S. population schedule,<sup>28</sup> in New York and in North Carolina. Both of these men can

17 Adams County, Pennsylvania, File 4874, Guardian Request, for "Newel Joyce and the estate of George Joyce," 1808; digital image, Adams County Historical Society, Gettysburg. Also, 1850 U.S. census, Adams County, Pennsylvania, population schedule, Menallen Township, p. 99 (penned), dwelling 651, family 719, Noel Jayce; digital image, Ancestry.com (<http://www.ancestry.com>: accessed 29 April 2015); citing NARA microfilm publication M432, roll 743.

18 Adams County, Pennsylvania, File 4874, Guardian Request, for "Wm. Joyce and the estate of George Joyce," 1808; digital image, Adams County Historical Society, Gettysburg. Also, 1840 U.S. census, Holmes County, Ohio, Know Township, p. 279 (penned), Wm Joise; digital image, Ancestry.com (<http://www.ancestry.com>: accessed 29 April 2015); citing NARA microfilm publication M704, roll 404.

19 Adams County, Pennsylvania, File 4874, Guardian Request, for "Petition of Elizabeth Joice for the Appointment of Guardians for George & John, Joseph, Margaret, Obediah, Deborah and Mary," 1808; digital image, Adams County Historical Society, Gettysburg. Also, 1830 U.S. census, Wayne County, Ohio, Plain Township, p. 32 (penned), George Joyce; digital image, Ancestry.com (<http://www.ancestry.com>: accessed 29 April 2015); citing NARA microfilm publication M19, roll 142.

20 Adams Co., Penn., File 4874, Guardian Request, Petition of Elizabeth Joice for the Appointment of Guardians, 1808. Also, 1870 U.S. census, Holmes County, Ohio, population schedule, Washington Township, p. 10 (penned), dwelling 69, family 66, John Joice; digital image, Ancestry.com (<http://www.ancestry.com>: accessed 29 April 2015); citing NARA microfilm publication M593, roll 1224.

21 The author of the book describes an "unrecorded deed (photocopy) in possession of Mr. Arthur Weaner. 11 Jan 1798. Nathan Patterson of Ploom [sic] Twp. Allegheny Co. Pa. and George Joyce, Tyrone Twp. Adams Co. Consideration L 607 10 shillings, good and lawful money of the State of Pennsylvania 103 a 104 land." See Arthur Weaner and William Frederick Shull, *History and Genealogy of the German Emigrant Johan Christian Kirschenmann* (Gettysburg, Pennsylvania: A. Weaner Press, 1957), 9.

22 "Pennsylvania, U.S. Direct Tax Lists, 1798," database with images, Ancestry.com, (<http://www.ancestry.com> : accessed 29 April 2015), entry for George Joyce; citing United States Direct Tax of 1798: Tax Lists for the State of Pennsylvania; Record Group 58: Records of the Internal Revenue Service, 1791-2006; National Archives, Washington, D.C.

23 Straban Township, York County, Pennsylvania, York County Tax Records for Straban Township Assessment of 1799, George Jice, 1799; York County Archives, York, Pennsylvania, unpaginated.

24 In a survey of all available tax records for all townships in York County, Pennsylvania totaling 1,703 pages, no other occurrence of a crossed-out record with the label "unfortunate" was identified. See "Pennsylvania, Tax and Exoneration, 1768-1801" database, Ancestry.com (<http://www.ancestry.com> : accessed 1 March 2016), author's examination of each record and image; citing Record Group 4: Records of the Office of the Comptroller General; "Tax & Exoneration Lists, 1762-1794," Series No. 4.61, Pennsylvania Historical & Museum Commission, Harrisburg, Pennsylvania.

25 Weaner and Shull, *History and Genealogy of the German Emigrant Johan Christian Kirschenmann*, 9.

26 Weaner and Shull, *History and Genealogy of the German Emigrant Johan Christian Kirschenmann*, 9.

27 "U.S. Quaker Meeting Records, 1681-1935," Ancestry.com (<http://www.ancestry.com> : accessed 11 February 2016), database with images, "Minutes, 1780-1811," entry for Elizabeth Joice, 1800, p. 391-392 (penned); citing "Baltimore Yearly Meeting Minutes," call no. RG2/B/M461 1.1, Swarthmore College, Swarthmore, Pennsylvania.

28 Ibid.

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be accounted for in the same location during the 1790 and the 1810 censuses.<sup>29</sup>

During the early 1800s, the children born to George Joyce and Elizabeth (nee Hewitt) Joyce were:

- 1801 – Joseph<sup>30</sup>
- 1803 – Margaret<sup>31</sup>
- 1804 – Obediah<sup>32</sup>
- 1805 – Mary<sup>33</sup>
- 1807 – Deborah<sup>34</sup>

A George Joyce appeared in several additional records in the 1800s. After the 1800 census record, which is the focus of the conflicting evidence, it would be expected to find him in the 1800 Pennsylvania Septennial Census. Interestingly, George was absent from it in Menallen and all nearby townships in both Adams and York Counties.<sup>35</sup> Yet a George Joyce was present in Menallen Township as an

administrator for two estates that same year. First, a George Joyce was an administrator for the estate of John Blackburn in October 1800,<sup>36</sup> and second for the estate of James McGrail in November of 1800.<sup>37</sup>

In 1801 on Christian Cashman's (the grantee the 103 acres in Straban Township) estate documents,<sup>38</sup> there were three expense line items in which Christian's estate owed George money. Perhaps this was from the purchase of the property. George was an administrator on another estate, this time for John Greer in March 1802. George and three other men were bound to the Commonwealth of Pennsylvania for administering John Greer's estate. The four administrators were all noted to be from Adams County though the only mention of the township referenced the deceased man's estate in Menallen Township.<sup>39</sup> Then, in 1803, George was a witness for a Menallen Township deed between John Tawzer and Mathias Saum.<sup>40</sup>

29 For George Joyce of Albany, NY, see 1790 U.S. census, Albany County, New York, Albany Ward 1, p. 123 (penned), George Joyce; digital image, Ancestry.com (<http://www.ancestry.com>: accessed 23 May 2015); citing NARA microfilm publication M637, roll 6. Also, 1800 U.S. census, Albany County, New York, Albany Ward 2, p. 282 (penned), George Joyce; digital image, Ancestry.com (<http://www.ancestry.com>: accessed 23 May 2015); citing NARA microfilm publication M32, roll 22. Also, 1810 U.S. census, Albany County, New York, Albany Township, p. 77 (penned), Geo. Joyce; digital image, Ancestry.com (<http://www.ancestry.com>: accessed 23 May 2015); citing NARA microfilm publication M252, roll 26. For George Joyce of NC, see 1790 U.S. census, Stokes County, North Carolina, Township not stated, p. 545 (penned), George Joyce; digital image, Ancestry.com (<http://www.ancestry.com>: accessed 23 May 2015); citing NARA microfilm publication M637, roll 7. Also, 1800 U.S. census, Stokes County, North Carolina, Salisbury Township, p. 494 (penned), George Joyce; digital image, Ancestry.com (<http://www.ancestry.com>: accessed 23 May 2015); citing NARA microfilm publication M32, roll 32. Also, 1810 U.S. census, Rockingham, North Carolina, p. 214 (penned), George Joyce; digital image, Ancestry.com (<http://www.ancestry.com>: accessed 23 May 2015); citing NARA microfilm publication M252, roll 43.

30 Adams Co., Penn., File 4874, Guardian Request, Petition of Elizabeth Joice for the Appointment of Guardians, 1808. Also, 1870 U.S. census, Adams County, Pennsylvania, population schedule, Menallen Township, p. 30 (penned), dwelling 225, family245, Joseph Joyce; digital image, Ancestry.com ([www.ancestry.com](http://www.ancestry.com) : accessed 29 Apr 2015); citing NARA microfilm publication roll M593, roll 1289.

31 Adams Co., Penn., File 4874, Guardian Request, Petition of Elizabeth Joice for the Appointment of Guardians, 1808. Also, 1870 U.S. census, Adams County, Pennsylvania, population schedule, Menallen Township, p. 19 (penned), dwelling 142, family154, Maragaret Cook; digital image, Ancestry.com ([www.ancestry.com](http://www.ancestry.com) : accessed 29 Apr 2015); citing NARA microfilm publication roll M593, roll 1289.

32 Adams Co., Penn., File 4874, Guardian Request, Petition of Elizabeth Joice for the Appointment of Guardians, 1808. Also, 1830 U.S. census, Adams County, Pennsylvania, Latimore Township, p. 97 (penned), Obediah Joyce; digital image, Ancestry.com (<http://www.ancestry.com>: accessed 29 April 2015); citing NARA microfilm publication M19, roll 143.

33 Adams Co., Penn., File 4874, Guardian Request, Petition of Elizabeth Joice for the Appointment of Guardians, 1808. Also, 1830 U.S. census, Adams County, Pennsylvania, population schedule, Menallen Township, p. 91 (penned), William Gardner; digital image, Ancestry.com (<http://www.ancestry.com>: accessed 29 April 2015); citing NARA microfilm publication M19, roll 143.

34 Adams Co., Penn., File 4874, Guardian Request, Petition of Elizabeth Joice for the Appointment of Guardians, 1808. Also, 1870 U.S. census, Adams County, Pennsylvania, population schedule, Menallen Township, p. 33 (penned), dwelling 248, family 272, Deborah Reed; Ancestry.com (<http://www.ancestry.com>: accessed 29 April 2015); citing NARA microfilm publication M593, roll 1289.

35 1800 Pennsylvania, Septennial Census, search for George Joyce; database with images, "Pennsylvania, Septennial Census, 1779-1863," Ancestry.com (<http://www.ancestry.com>: accessed 11 February 2016); citing Records of the House of Representatives, Records of the General Assembly, Record Group 7, Box 1025; Pennsylvania Historical and Museum Commission, Harrisburg, Pennsylvania.

36 "Pennsylvania Wills and Probate Records, 1683-1993," database with images, Ancestry.com, (<http://www.ancestry.com> : accessed 20 February 2016), entry for John Blackburn; citing Adams County, Pennsylvania, Will Books A-B.

37 "Pennsylvania Wills and Probate Records, 1683-1993," database with images, Ancestry.com, (<http://www.ancestry.com> : accessed 20 February 2016), entry for James McGrail; citing Adams County, Pennsylvania, Will Books A-B.

38 Weaner and Shull, History and Genealogy of the German Emigrant Johan Christian Kirschenmann, chapter 3, appendix B, p. 6.

39 "Pennsylvania Wills and Probate Records, 1683-1993," database with images, Ancestry.com, entry for John Greer.

40 Adams County, Pennsylvania, Deed Book B:313-314, Mathias Saum to John Tawzer, 1803; digital image, Adams County, Pennsylvania Register and Recorder (<https://www.landrecordspa.adamscounty.us> : accessed 11 Feb 2016).



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Finally, George's 1807 death began a series of paperwork, lasting through 1828, which included administrator's accounts, inventories, guardianship records, and more. Information revealed in those documents that are relevant to this case has already been discussed.

## D. Genealogical Categorization

The first three methods of creative thinking were intended to generate hypotheses that may include "out-of-the-box" ideas. This fourth method provides a categorization, or checklist, of common genealogical scenarios. These categories can be used to help generate more hypotheses as well as to log hypotheses from the other methods. Consider these categories for potential scenarios:

- *Errors.*
  - *Unintentional.* Genealogists are always open to the possibility of errors in records. Errors could exist in the form of misspellings, incorrect dates, wrong locations, mistaken names, and much more.
  - *Intentional.* Sometimes genealogical situations exist in which there was intentional misinformation. A child may have been left out of a will, a woman could have stated a younger age to sound more appealing to her husband and many other situations are possible.
- *Unrecorded or Missed.* An ancestor may have not been recorded in a specific record set. Such examples could include that a census enumerator skipped the house or a birth did not get recorded at the county courthouse.
- *Multiple people with the same name.* Names are not as unique as we think and it is not uncommon to find people with the same name, whether related or not, living in a close proximity to one another.
- *Event.* Events are the cornerstone of genealogy research. Consider the following events that may have occurred:
  - *Moved.* Many types of "moving" scenarios could be considered. Someone may have moved into

or out of the area. They could have immigrated. Land could be purchased or sold.

- *Macro environmental issue.* A multitude of issues in our ancestors' surrounding environments could create a challenge. There could be a famine or a natural disaster. If the economy was poor then maybe your ancestor couldn't keep the children in the household.
- *Military Service.* If a member of the family was in the military, it could explain the absence during an event such as a census or even for a father's presence at his child's baptism.
- *Birth.* The birth of a child may explain a change in situation. That could include the number of people in a household, the wife may be out of the household at someone else's home and more.
- *Marriage.* The person may have married or divorced creating name changes, changes of residence and more.
- *Death.* Deaths would create a change in the household structure, the altering of legal status such as a woman's rights, and more.

Stage 1 provides four methods for generating hypotheses. Applying one method may be enough, but utilizing more than one will increase not only the number of hypotheses but also the breadth of ideas. The many hypotheses that were generated should be recorded during the application of each method, and before proceeding to Stage 2.

## STAGE 2 – PRIORITIZE HYPOTHESES

During the first stage it is tempting to begin research to support a tantalizing hypothesis. But the brainstorming should be completed before proceeding.

The prioritization of the hypotheses can be done in several ways. One method is to address the easier ones first. Some of the hypotheses could be refuted quickly and therefore checked off the list. Another way is to concentrate on the hypotheses that are most logical; the one or two that sound most likely.

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In the case of George Joyce and the conflicting evidence, many hypotheses were developed during the first brainstorming stage and using all four of the methods described. Those were then labeled and briefly described as follows. The prioritization for these was based listing the ones easier to address (support or refute) first.

- ❖ **Hypothesis 1 – Unintentional Error.** The enumerator erred on the 1800 census and the George Joyce household had at least two children in it, not just one male and one female between 26-44.
- ❖ **Hypothesis 2 – Unrecorded.** A second George Joyce household existed but was missed in the 1800 census. George Joyce of the 1808 probate records, with nine children, was living in the same area but was not recorded on the 1800 census.
- ❖ **Hypothesis 3 – Multiple people with the same name.** There was another George Joyce household in Straban Township.
- ❖ **Hypothesis 4 – Moved.** George Joyce of the 1800 census moved out of Menallen Township, Adams County and another George Joyce moved in.
- ❖ **Hypothesis 5 – Marriage.** George Joyce and his first wife divorced before 1800. She lived elsewhere with her four children. George remarried sometime before the 1800 census was taken and he was living there with his new wife.
- ❖ **Hypothesis 6 – Death.** George Joyce of the 1800 census died and another George Joyce moved in.
- ❖ **Hypothesis 7 – Death.** George's first wife died before 1800. George remarried before the 1800 census was taken. His four children by the first wife were living elsewhere for any variety of reasons such as he couldn't care for them while widowed, or the new wife did not want to care for them.

## STAGE 3 – REFUTE OR SUPPORT HYPOTHESES

As each hypothesis is addressed, the rationale should be captured in research notes. The form of the notes could be a brief proof statement or proof summary<sup>41</sup> that can be referred to later. Once a hypothesis is refuted, proceed to the next one. Disproving, or even attempting to disprove, a hypothesis can prove valuable and can lead to new lines of thinking.<sup>42</sup> If all hypotheses are eliminated, return to the brainstorming stage applying new methods. When one or more hypotheses have not been refuted, then develop support for them and apply the Genealogical Proof Standard.<sup>43</sup> A myriad of analytical methods can be utilized and will depend on any specific genealogical challenge. These methods could include tests of analysis and tests of correlation<sup>44</sup> resulting in a simple solution or one that needs a proof argument.<sup>45</sup>

The hypotheses for George Joyce are addressed as follows:

**Hypothesis #1** suggested that an error was made in the 1800 census.<sup>46</sup> It documented George and a 26-44 year old female. In actuality, there should have been 4 children in the household. It would be easy to select this option and blame the census taker. However, there is additional evidence supporting that two people in the household may be correct (see hypotheses below) and the physical condition of the census is quite good. As seen in Figure 2, the census is clear, easy to read and organized well with rows and columns. This marshal took care with his work product. While an error is possible, this hypothesis is refuted.

**Hypothesis #2.** There is an 18-year span between George's first appearance in the 1789 tax record and his 1807 death. With the exception of his nine children and second wife Elizabeth (nee Hewitt), no other Joyces appear in York or Adams Counties, or even Pennsylvania, during this period. Therefore we can refute Hypothesis #2 that suggested the George Joyce of the 1807 probate records was missed during the 1800 census and not recorded in it.

<sup>41</sup>

<sup>42</sup> Thomas W. Jones, *Mastering Genealogical Proof*, (Arlington, Virginia: National Genealogical Society, 2013), 84-87.

<sup>43</sup> F. Warren Bittner, "Dora Luhr's Hanover Origin: A Case of Conflicting Direct Evidence," *National Genealogical Society Quarterly* 98 (September 2010): 173-176.

<sup>44</sup> Board for Certification for Genealogists, *Genealogy Standards*, 50th anniversary ed., (Nashville, Tennessee ; New York, New York : Ancestry.com, 2014), 1-3.

<sup>45</sup> Jones, *Mastering Genealogical Proof*, 53-65.

<sup>46</sup> Jones, *Mastering Genealogical Proof*, 87-89.



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**Figure 2**  
**1800 Census of Menallen Township, Adams County, PA for George Joyce**

Name	Age	Sex	Color	Value	Value	Value	Value	Value	Value
George Joyce	41	M	W	100	0	0	0	0	0
...	...	...	...	...	...	...	...	...	...

another George moved in. The 1790 census depicts a George Joyce household likely comprised of George, a wife, a young son, and an unidentified adult male. With the information exposed in the guardian records, we know that George had nine children and that at least two were born between 1787-1794 based on their ability to select a guardian between the ages of 14-21 in 1808. This corroborates a son being recorded in the 1790 census. It is unlikely that there were three George Joyces: one who was recorded in the 1790 census with a child, a second in the 1800 census with a wife and no children, and then a third in 1807 with 9 children. Thus Hypothesis #4 is refuted.

**Hypothesis #5.** Though rare for the 1800 time period, the possibility of a divorce between George and the female (based on 1807 probate records she is believed to have been his first wife) noted in the 1800 census should be considered. Different sources estimate that the divorce rate was in the low single digits in the mid-to late-1800s, and was likely even less near the earlier 1800 period.<sup>47</sup> Some records for Pennsylvania divorces exist, were consulted, and no record of a divorce for George Joyce was found.<sup>48</sup> Therefore, we can dispose of Hypotheses #5.

**Hypothesis #6** was similar to #4 in that it proposed there were two different George Joyces, albeit for different reasons. In #6, George from the 1800 census (with no children) died and another George moved in after that. No records have surfaced that document a death of an additional George Joyce between 1800-1807.<sup>49</sup> Additionally, between 1800-1803, George Joyce was a witness several legal documents. Thought not impossible, it is highly improbable that this situation occurred. So, Hypothesis #6 is rejected.

**Hypothesis #3** proposed that there was more than one George Joyce: one who was recorded on the 1800 census and a different one in the 1807 probate records. The timeline throughout the 1789-1807 periods depicts one George Joyce household consistently over time, with no overlap of any sort within dates or locations. More than 20 records were reviewed with a George Joyce in them. There is only one George Joyce, with its variant spellings, and no others with the surname Joyce in two places during one year thus we can conclude there are not two men named George Joyce. This refutes Hypothesis #3.

**Hypothesis #4** submitted that the George Joyce of the 1800 census was different than the George Joyce who died in 1807 because one George moved out while

47 1800 U.S. census, Adams County, Pennsylvania, Menallen, p. 491 (penned), George Joyce; digital image, Ancestry.com (<http://www.ancestry.com>: accessed 23 May 2015); citing NARA microfilm publication M32, roll 35.

48 U.S. Department of Health, Education, and Welfare, 100 Years of Marriage and Divorce Statistics United States 1867-1967 (Washington, D.C. : U.S. G.P.O., 1974); Portable Document Format, CDC.gov (<http://www.cdc.gov> : accessed 10 February 2016).

49 York County, Pennsylvania, Records of the Prothonotary, Divorces for Dauphin County 1788-1867 and York County 1790-1860, search for George Joyce; Office of the Prothonotary (<https://yorkcountypa.gov> : accessed 11 February 2016). Also, Supreme Court Divorce Papers, Eastern District, 1786-1815, Record Group 33, Series 41, arranged alphabetically, search for George Joyce; Clerk of Court's Office, Philadelphia, Pennsylvania; DAM microfilm 259, G-K, Division of Archives and Manuscripts, Bureau of Archives and History, Harrisburg, Pennsylvania. Also, Supreme Court Divorce Docket, Eastern District, 1800-1805, vol. 1, Record Group 33, arranged by date, search for George Joyce; Clerk of Court's Office, Philadelphia, Pennsylvania; DAM microfilm 1766, Division of Archives and Manuscripts, Bureau of Archives and History, Harrisburg, Pennsylvania.

50 Find A Grave, database with images (<http://www.findagrave.com> : accessed 22 February 2016), search for George Joyce. Also, "Pennsylvania and New Jersey, Church and Town Records, 1708-1985," database with images, Ancestry.com, (<http://www.ancestry.com> : accessed 22 February 2016), search for George Joyce. Also, "Pennsylvania Wills and Probate Records, 1683-1993," database with images, Ancestry.com, (<http://www.ancestry.com> : accessed 22 February 2016), search for George Joyce.

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**Hypothesis #7** puts forth that George was married twice but not because of a divorce. It proposes that George's first wife died before 1800, and that he remarried. There is proof in the probate records that George's widow was his second wife and that the five youngest, of his nine children, were hers. George had four sons with his first wife as noted above.

Evidence from George Joyce's timeline and narrative can identify the timeframe in which George's first wife died – between the birth of his fourth son John in 1797 and the sale of his Straban Township property in 1799 in which his second wife, Elizabeth, was recorded.

But where were the four sons from his first wife? Unfortunately, the 1800 census is no help because it only lists heads of household names. In 1800, the boys would have been approximately 11, 9, 4 and 3 years old. Candidates for foster households could have been George's in-laws from his first marriage, neighbors or even friends. In today's view, it would be difficult for us to contemplate not having our children living with us. However, George was newly remarried and managing a large farm. Perhaps his second wife was experiencing a difficult pregnancy and couldn't care for the children. Maybe she didn't want the boys to live with her. The oldest two boys could have been farm hands or apprentices. It may never be known if the boys' absence from the home in 1800 was a temporary or permanent decision. But, this hypothesis is the one that can be supported with evidence.

As a whole, the development of the hypotheses answers the research question. There is no compelling evidence of two George Joyces. The myriad of evidence continually places one George Joyce in Menallen Township, or nearby in Straban Township, and never with overlapping dates. The complicating factors of nine children from two wives actually aids in supporting why the 1800 census record with only George and a 26-44 year old female (Elizabeth) is a logical explanation. Thus, the research question is answered and the George Joyces of the 1800 census and the 1807 estate records are the same person.

## CONCLUSION

A framework for hypotheses development increases the likelihood of solving a challenging research problem. Though the practice of generating more hypotheses does

not guarantee a solution to the genealogical challenge, it must improve the outcome through the consideration of alternative solutions. Even hypotheses that are proven false are valuable.

Stage 1 provides methods for creative thinking that will help develop new, and perhaps unusual, hypotheses. By using simplification, mind mapping, expository writing, and genealogical categorization, new ideas will emerge.

In Stage 2, the hypotheses are prioritized. There are a couple ways to prioritize them including from the easiest to the most difficult, or from the most likely to the least likely.

Finally in Stage 3, the work is done to support or refute each hypothesis. If one, or more than one, viable hypothesis remains, then it can be fully supported or warrant further research.

In George Joyce's case, hypotheses were developed throughout the creative thinking stages. Several ideas emerged from simplification then sharing with colleagues. Expository writing exposed many new ideas likely because the information on George is quite extensive and it begins to take shape via the written narrative accompanied by a timeline.

Seven hypotheses were generated between the two stages. Ultimately six of the seven hypotheses were refuted. The seventh hypothesis was supported and answers the research question and a proof argument must be built.

Hypothesis generation is a critical skill for any genealogist. Using a framework such as the one proposed here can aid in a researcher's efficiency as well as success.



*Dr. Abrens has researched her personal genealogy since 1998 focusing on the geographies of Ohio, Pennsylvania, England, and Norway. She is pursuing her genealogy education professionally to teach and write. Jan has completed several courses and institutes including BU OL15, SLIG (Advanced Methods & Scandinavian Research), IGHR (Intermediate), British Institute (English Ancestors) and ProGen 25. Before beginning her genealogy career, Jan worked and taught marketing; and earned a B.S. in Business, Marketing from Miami University; and an MBA, Marketing from The Ohio State University and a Doctor of Business Administration from Golden Gate University.*