

Critical Thinking

Introduction

This is not a straightforward topic because a lot has been written and applied to many different research areas, and it is not easily discussed in a brief document so I've taken liberties in simplifying what is extensive academic literature on the topic of thinking, and critical thinking specifically. Any deficiencies are mine and not the referenced articles.

There are two comments on critical thinking (CT) that I find useful in explaining its role in genealogy research:

“It [CT] refers to good thinking. It is the quality of the thinking which distinguishes critical from uncritical thinking, and this quality is determined by the degree to which the thinking meets the relevant standards and criteria. It is, then, the adherence to certain criteria which is the defining characteristic of critical thinking.”¹

“Critical thinking is a reasoned, purposive, and introspective approach to solving problems or addressing questions, with incomplete evidence and information, and for which an incontrovertible solution is unlikely.”²

This latter definition of CT seems particularly appropriate to genealogy research.

Critical Thinking in Genealogy

CT as it applies to genealogy research (and many other fields of research) exhibits many aspects and is all of the following:

- a disposition/temperament/frame-of-mind
- a skill
- a process
- a set of standards/values

To expand on each aspect of CT:

- Critical thinkers tend to be disposed to find and investigate problems, to probe assumptions, to seek reasons, to be reflective.
- A listing of CT skills includes observation, interpretation, analysis, and deductive reasoning.
- Steps in the CT process may include statement of the question, identification of assumptions, accumulation of information, verification of the accuracy of information, examination of alternatives, resolution of disagreements, and formulation of a conclusion.
- Typical standards are: Clarity, precision, accuracy, relevance, consistency, logical correctness, completeness, and fairness.

Recall an abbreviated listing of the steps in the genealogy research process:

1. State the hypothesis/question.
2. Determine sources relevant to the hypothesis/question.
3. Derive the information in a source.
4. Validate and explain each piece of applicable information in a source as well as the overall quality or trustworthiness of the source.
5. Assess the validity of the full body of information from all the sources.
6. Draw a conclusion from the evaluation of the full body of information.

This genealogy research process is thoroughly interwoven with the above four aspects of critical thinking:

- Without a disposition to think critically, we are simply left with uncritical and reflexive thinking, which leads to errors in judgment and unsupportable conclusions.
- If the skills of observation and analysis are lacking, valid sources and information can be overlooked with a resulting faulty conclusion. Without deductive reasoning during examination of the information, several inter-related bits of information may be ignored; in other words, connecting-the-dots is important.
- Not following a process can lead to the use of inaccurate information because that information was not verified; it can lead to unexamined alternative explanations of information; and can cause conflicting information to be overlooked. Incorrect conclusions will surely follow.
- Without an adherence to a standard of clarity of thought, accuracy of information, logical correctness in the examination of the body of evidence, and fairness in looking at possible outcomes, the conclusions of the genealogical research will be unconvincing at best and, at worst, invalid.

Criteria and Values

The 4th and 5th elements of the genealogy research process require validation, analysis and judgment regarding the information obtained, and the quality of carrying out these steps determines in large measure the quality of the conclusion(s) reached.

For example, when evaluating the body of information, what criteria and values are used? This can be answered in part by applying CT through the use of questions such as:

- Who authored the source and what are their credentials?
- What is the currency of the source record relative to the event in question?
- Are original sources cited/available?
- What is the provenance of the record (chronology of the ownership, custody or location of the record)?
- Is all the information logically coherent: death after birth, burial after death, etc?
- Is there contrary information available?

- Is there breadth to the body of information – use of multiple sources of varying types?

Helen Osborn has contributed many more questions that deserve to be answered regarding any source.³ With the above list as a starting point, it's possible to develop a more extensive list of "testing" questions for any specific research problem or source type.

¹ Sharon Bailin, "Critical Thinking and Science Education," *Science and Education* 11 (2002); digital images, (<http://eblog.cersp.com/UploadFiles/2006-11/1117929615.pdf> : accessed 27 Jan 2014), pp 363-4.

²Rick D Rudd, "Dimensions of Critical Thinking," *Journal of Southern Agricultural Education Research* 50 (January 2000); digital images, *Texas A & M College of Agriculture and Life Sciences* (<http://pubs.aged.tamu.edu/jsaer/pdf/Vol50/50-00-133.pdf> : accessed 27 January 2014), p. 137.

³ Helen Osborn, *Genealogy: Essential Research Methods* (London: Robert Hale, 2012), p. 126.