Chapter Nine
The Categorization and Evaluation Exercise

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- Charting Your Categories
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  * A Student Example: “Categorizing My Research on Drug Advertising” by Jeremy Stephens

Revisiting your Working Thesis Again

Before you start working on the categorization and evaluation exercises, you should revisit the progress of your working thesis. In chapter eight, you began the antithesis essay by first taking a moment to take stock of the current version of your working thesis. It’s important to embark on research projects with some sense of where you’re going, and the main advantage and goal of a working thesis is it establishes a direction for you to pursue your research.

Your working thesis will almost inevitably change a bit as you work your way through the process of research writing. You begin in one place with some sense of direction about what you want to research, but when you start gathering and examining your evidence and as you work through the exercises, it’s important to be willing and able to change directions. In other words, a working thesis is where you start your research project, but it isn’t necessarily where you end your research project.

Exercise 9.1
Either as a short writing exercise or with a group of your peers, consider once again the evolution of your working thesis. Where did it start out and how has it changed to what it is now? What sparked these changes in your working thesis and your point of view on your topic? If your working thesis has not changed yet, why do you think this is the case? If you did revisit your working thesis at the beginning of chapter 8, did the antithesis essay project (also in Chapter 8) make you reconsider your working thesis again? Why or why not?
The Process of Research Writing
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Why Categorize and Evaluate Evidence?

We divide things into categories in order to make some sense of and interpret all sorts of different things. Stores are arranged according to categories that tend to make sense of what’s in them for shoppers—for example, department stores divide their merchandise up into categories like women’s clothing, hardware, sporting goods, housewares, and so forth.

We also expect things to be categorized in a descriptive and sensible way. Department stores tend to arrange things by what you might use them for and who might use them: kitchen things are in one part of the store, sheets in another, women’s clothing in one part, and men’s clothing in still another part. These categories aren’t the only way the department store owners could arrange things. They could arrange things by color—all of the blue things in one part of the store (blue cookware, blue sheets, blue shirts, etc.), all of the white things in another part of the store, and so forth. While that might make for a visually interesting store, it would be very difficult for customers to find anything in such an arrangement.

Categorizing your research will:

• Help you (and eventually your readers) make better sense of what sort of evidence you have.

• Enable you to compare and contrast different pieces of evidence and to evaluate your research, which is an essential step in the process of research writing.

• Give you a clearer sense of the evidence that you have and the evidence you are lacking.
While there are no formal rules for categorizing your research, there are a few guidelines that you need to consider as you begin to categorize your research for the purposes of writing about and evaluating it.

• **You have to have a significant body of research to categorize in the first place.** Hopefully, you have started compiling an annotated bibliography (see chapter six) and you have been working on adding to your annotated bibliography as you have progressed through the other exercises and projects by gathering materials from the library, the Internet, interviews, and so forth.

• **Each piece of research has to fit into a category.** No matter how you decide to categorize your research, be sure that all of it can be put into at least one category.

• **As much as possible, each category should have at least two pieces of research.** Avoid having categories with just one item. One item categories don’t allow you to make comparisons or generalizations about how things might be similar; they only demonstrate how things are different, which is only one of the functions of categorizing your research. Also, if you allow yourself one item categories, it can often be a little too tempting to make too many one item categories.

• **Categories should be as distinct and different from each other as possible.** If there is no difference between the items that you put in the category “from newspapers” and those from the category “from nonacademic sources,” then put all of the sources from both categories into only one category.

• **Last but not least, categories should make sense and tell you and potential readers about what your think of your evidence.** It probably wouldn’t make much sense and wouldn’t be very meaningful to have a category consisting of articles that appeared on page four of newspapers, or a category consisting of articles that were published in journals with titles that begin with the letter “R.”

Sometimes, categories that might seem to be illogical actually make sense once they are explained. It might not seem to make much sense for a writer to categorize his evidence according to the gender of the authors. But if the writer is trying to make a point about how men and women hold different attitudes about the topic of the research, it might make quite a bit of sense to have at least one category that examines the gender of the source.
Some Sample Categories

Categorizing things can be a very idiosyncratic and specific activity. To get started in coming up with categories, here are a few ways to categorize your research that should be applicable for most research projects:

**Categories of the Author**
- “Academic” or scholarly writer
- Non-expert writer (a magazine writer or writers with no stated credentials, for example)
- “Non-writers” (that is, pieces of evidence where no author is named)

**Categories of Source**
- Primary Sources
- Secondary Sources
  (See the discussion in chapter one on the differences between primary and secondary sources)
- Academic journal or book
- Non-academic or popular press magazine or book
- Newspapers
- Internet-based resources
- Interviews (or other primary research you may have conducted)

**Other Potentially Useful Categories**
- Date of publication—either a particular year, before or after a particular event, etc. For example, if your working thesis was about gun control and teen violence, it might be significant to compare the research you have that was published before the 1999 Columbine High School shootings to the research that was published after the shootings.
- Research that generally supports your working thesis
- Research that generally supports antithetical arguments to your working thesis (see chapter eight)

Of course, not all of these sample categories will work equally well for all research projects, and it is possible that the categories you will find most useful for this exercise are ones that are very specific to your own research project.

**Exercise 9.2**
Which of the previous sample categories seem to be most potentially useful for your research project? What other ideas do you have for other categories on your research? Working alone or in small groups, consider as many categories for your evidence as possible.
Charting Your Categories

Once you have some ideas about what categories you think will be useful for dividing your evidence, you have to figure out how you want to do it. One recommendation is to create a table or chart, either by taking advantage of the table function in Word, using a spreadsheet software, or just paper and pen or pencil. Write your categories across the top and some basic citation information—author, title, publication, etc.—about each piece of your evidence along the left side of the table. In each cell of the table or chart created by this arrangement, indicate if the article falls into that category and make any other notation that you think will help explain how the article fits into that category.

The example below is part of a categorization chart that explores the topic of computer crime and computer hacking. The writer’s current working thesis at this stage of the project was “While many hackers commit serious computer crimes and represent a serious Internet security problem, they can also help law enforcement officials to solve and prevent crime.” The left-hand column lists the title of the articles that the writer is categorizing, while the categories themselves are listed across the top row.

There are ten different pieces of evidence being categorized here. You could do more or less, though again, for this exercise to be effective, you should chart at least five or six pieces of evidence.

As you can also see here, most of the entries include at least a few extra notes to explain why they are in different categories. That’s okay, and these notes might be helpful to the writer later on when he puts together his categorization and evaluation essay.
### A Categorization Chart Example

<table>
<thead>
<tr>
<th>Evidence:</th>
<th>Web-based Sources</th>
<th>Academic /Trade Sources</th>
<th>Gov. Doc Sources</th>
<th>Popular Sources</th>
<th>Hackers always bad</th>
<th>Hackers sometimes good</th>
<th>Enforcement/ fighting crime</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brenner, Susan cybercrimes.net, 01</td>
<td>XX</td>
<td>XX (Law school)</td>
<td>XX</td>
<td>XX (Legal issues/laws against)</td>
<td>XX (courts, laws, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cameron, Al “Fighting Internet Freud” Business Credit, 02</td>
<td>XX (Trade Pub)</td>
<td>XX (Dept. of Justice)</td>
<td>XX</td>
<td>XX (Money &amp; business)</td>
<td>XX (cops, company software)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Cybercrime.gov” US. Gov., 02</td>
<td>XX</td>
<td>XX (Dept. of Justice)</td>
<td>XX</td>
<td>XX (terrorism, fraud)</td>
<td>XX (FBI, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;Cybercrime soars” Info Management Jnl, 02</td>
<td>XX (Trade pub)</td>
<td>XX (Business)</td>
<td>XX</td>
<td>XX (private business)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Markoff, John. “New Center...” NYT, 10/99</td>
<td>XX (??)</td>
<td></td>
<td>XX</td>
<td>XX (“hanging out” with hackers)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neighly, Patrick “Meet the hackers” America’s Network, 00</td>
<td>XX</td>
<td>XX (Culture studies)</td>
<td>XX</td>
<td>XX (can help with business)</td>
<td>XX (hackers fighting crime)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Palmer, CC. “Ethical Hacking” IBM Sys. J, 01</td>
<td>XX</td>
<td>XX (Trade pub)</td>
<td>XX</td>
<td>XX (Business)</td>
<td>XX (hackers fighting crime)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sauer, Geoffrey “Hackers, Order, Control” Bad Subjects 2 / 96</td>
<td>XX</td>
<td>(Culture studies)</td>
<td>XX</td>
<td>XX (can help with business)</td>
<td>XX (abstract ideas)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speer, David “Redefining Borders:” C, L &amp; S C, 00</td>
<td>XX</td>
<td>(Criminology)</td>
<td>XX</td>
<td>XX (business but individuals, too)</td>
<td>XX (abstract ideas)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>“World Cybercrime...” CNN, 10/02</td>
<td>XX</td>
<td>XX (Business, terrorism)</td>
<td>XX</td>
<td>XX (International effort)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Presumably, you are not familiar with the specifics about these pieces of evidence; but for the purposes of this example, it’s more important that you understand the categories and the process the writer must have gone through to come up with this chart. The number of observations that can be made from a chart like this could be explored in more detail in a categorization and evaluation essay. You’ll use your own chart to complete such an essay later in this chapter.

• While the reasons for the articles for being put into the category “Hackers always bad” are similar (fear of damage to business and the potential for terrorism), the reasons why the articles were put into the category “Hackers sometimes good” vary. The Palmer essay suggests that hackers might be beneficial (when they work “ethically,” as the title says) in order to help protect business from the attacks of “bad” hackers. While both the Neighly and Sauer articles make distinctions between “good” and “bad” hackers, these essays are more focused on hackers as people than as criminals.

All of this suggests that if the writer wanted to continue exploring this idea of “hacking,” it might be wise for the researcher to carefully consider how hacking is discussed. For example, how does each article define “hacking?” How does each article assess the potential threat or potential benefit of computer hacking?

• With the possible exception of the Neighly essay, the three essays that describe computer hacking as something that is sometimes good are from academic or “trade” publications. The writer put question marks in his chart in the “Academic/Trade Sources” category next to the Neighly essay because it was a difficult to categorize source that seemed to fit best here. Interestingly enough, one of the “hackers sometimes good” publication was produced by the computer company IBM. The professional and trade publications that suggest computer hacking is always bad focus on the issues of the law, law enforcement, or criminology.

• Almost all of the evidence included here is concerned with enforcing the laws and fighting against cybercrime, but there seems to be little consensus as to how to do it. Some of the resources are advocating for tougher U.S. federal laws; one is advocating international action; and some are suggesting that enforcement must come mainly from the Internet business community.

• There is only one government publication listed on this categorization chart, which suggests that either the U.S. government has not published many documents on computer crime and hacking, or the researcher ought to consider conducting some more research that focuses on government documents.

The same can be said in some ways about Web-based resources: all of the Web-based research portrays computer hacking as an unlawful and criminal act. Considering the fact that the World Wide Web is a space with many divergent views (especially about topics like computer crime and computer hacking), it seems logical that there may be worthwhile to see what other evidence is available on the Web.
This process of charting your categories is one that can go much further than suggested here. For example, perhaps your initial categories have prompted you to consider new ways to categorize your evidence, which might lead to additional relationships between your sources. You might also include more evidence, which again might lead to different observations about your evidence.

Ultimately, you have to write about the results of your categorization in the form of an essay. You might want to consider two strategies as you move from the “charting” phase of this exercise to the “drafting” phase:

• **You will have to explain the significance of your different categories and groupings of evidence in your essay for this exercise, perhaps more than you might think.** As the writer, the division of the evidence might make perfect sense to you, but that “sense” often is not as accessible to your readers. This potential of missing your audience is possible with any writing project, but it is something to be especially mindful about with this exercise.

• **Charting of evidence will probably yield many different and interesting points of comparison and evaluation, but you should focus on the points of comparison you think are the most significant.** In other words, you probably shouldn’t talk about each and every category you chart.

**Exercise 9.3**

Try creating a categorization chart of your own. Working alone or in small collaborative groups, group your sources according to categories that make sense to you, perhaps the ones you developed in the previous exercise. On a piece of paper or on a computer using a spreadsheet or table-making software, create a chart that looks similar to the one in this section. Do you notice similarities or differences between your evidence you didn’t notice before? Are there any shortcomings or other imbalances between your categories that might help you better target what you need in any additional research? What other sorts of observations can you make about your research?