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How to Write a Literature Review

"If I have seen further [than certain other people] it is by standing upon the shoulders of giants..."

Isaac Newton

A literature review summarizes and evaluates a body of writings about a specific topic. While there are excellent courses on qualitative and quantitative methods, for their literature reviews, most students have had no option other than learning by doing. In a world where the Internet has broadened the range of potentially relevant sources, however, doing a literature review can pose challenges even to an experienced researcher. This essay seeks to describe the general functions of a literature review in political science and to offer some practical pointers to make learning by doing easier and more productive.

In general, a literature review has two key elements. First, it concisely summarizes the findings or claims that have emerged from prior research efforts on a subject. Second, it reaches a conclusion about how accurate and complete that knowledge is; a literature review presents considered judgments about what's right, what's wrong, what's inconclusive, and what's missing in the existing literature. The literature review is both a process and a text. The final version should not be a text that reports the process of selecting, reading, and thinking about

relevant sources; rather, this process makes it possible to produce a text that reaches conclusions about the literature. In contrast to some other ways of surveying a body of literature, such as an annotated bibliography, the literature review is a work of synthesis, meaning it should focus on the body of work as a whole.

Conceptual Matters: The Functions of a Literature Review

Three Contexts for Literature Reviews

Literature reviews are produced in one of three contexts: as a stand-alone product; as the preliminary stage in a larger research project; or as a component of a finished research report, such as a dissertation, article, or book. In the latter two contexts, it is important to remember that the literature review is a means that should serve the larger research project's ends. In any of these contexts, a literature review can address either theoretical or practical questions. In academic settings, review essays most often focus on the theories scholars have proposed to explain some phenomenon, but a literature review can also be used to determine and assess the current practical know-how or "lessons learned" in regard to which measures are likely to be effective or not in dealing with a certain problem.

To return to the first context, reviewing existing knowledge can itself be the primary goal if one simply wants to ascertain the current "state of the art" on a particular subject or problem. In this context (as well as the other two), it is important not to simply summarize the available research, but also to evaluate it critically. Such critical analysis should not be exclusively negative; it is also important to identify positive results to take away from the existing work.

Second, a review of existing knowledge can be a preliminary step in a larger research project. Such a literature review is often required for a thesis or dissertation proposal; it is also frequently an element in proposals for research grants. The most basic reason to undertake a literature review in this context is to make sure the proposed research question has not already been answered. Assuming no prior study has

solved the problem of interest, then the purpose of a proposal's literature review is to situate the proposed project in relation to existing knowledge. This is important because those who review a proposal ask "what is the expected contribution to knowledge?" or "what will be the value added of completing this research?" The goal here is to show that people who read the final research product are likely to learn some new or different information or argument compared to that found in existing studies. In short, a literature review in a research proposal provides an overview of existing scholarship in order to explain how the proposed research will add to or alter the existing body of knowledge.

Third, a literature review can be a component of a finished research report. Its purpose is to show how the final conclusions relate to the prior wisdom about the subject. In this context, the literature review should again function as a means to an end. Its merit can only be judged by the contribution it makes to the article, book, or dissertation of which it is a part. Many students writing a thesis or dissertation commit the cardinal mistake of treating the literature review as an end in itself. They fall into the trap of producing a literature review that merely summarizes a body, or bodies, of literature. In contrast, a good literature review is an argument about the literature that justifies the selection of the question the student wants to answer and the basic approach to answering that question. This is the difference between identifying the giants and hoisting yourself up on their shoulders.

Ways to Frame the Contribution to Knowledge

The literature review in a research proposal is used to frame the proposed research's expected contribution to knowledge. Knowledge, in this context, does not mean "Truth" with a capital T. Rather, knowledge refers to beliefs; in particular, beliefs that some individuals have a degree of confidence in due to study or experience. In the social sciences and policy research, most hypotheses cannot be proven conclusively. When reviewing literature, therefore, it is common to refer to the "claims" or "arguments" advanced by a study or school of thought. Hence, a typical review identifies the claims made in a literature and assesses the strength of the support offered for those claims.

It is helpful to think of knowledge as having two elements: what we believe and how strongly we believe it. Further research can affect either or both of those elements, either positively or negatively, and any of these results would be a contribution to knowledge. This is similar to the logic of Bayesian analysis in statistics. In Bayesian statistics, if one believes a statement has a certain probability of being true and then obtains additional pertinent data, one can revise the estimated probability that the statement is true using a mathematical formula provided by Bayes' theorem. Even where such precise quantification is not feasible, one can attempt an analogous qualitative assessment.[1]

This provides a framework for thinking about the possible consequences of new research. Further research could create a new belief in an area where people have no prior knowledge, it could alter an existing belief, or it could change how much certainty people feel about a current belief. Most obviously, something brand new is a potential contribution to knowledge; this might be new factual information, a new theoretical proposition, or a new policy proposal. In addition, information or reasoned argument that changes our degree of confidence in an existing belief is also a contribution to knowledge. This might be new evidence or analysis that corroborates a particular belief or that challenges a particular point of view. If new information or analysis is powerful enough, it might convince people that their prior belief was wrong and lead them to embrace a different perspective. When using a literature review to indicate where proposed research might make a contribution to knowledge, therefore, it is helpful to think in terms of identifying the existing beliefs people have and the level of confidence with which they hold them. This facilitates the task of showing where additional research could make a difference.

Practical Matters: The Three-Stage Process

The process of reviewing the literature can be divided into selecting, reading, and writing. Before a researcher can write a literature review, that individual must first identify and select relevant sources and read them in a way that advances the goals of the review.

Selecting Sources: Begin Conventionally and Continue Imaginatively

The first problem in a literature review is deciding which literature to review. It is a good idea to select your reading both conventionally and imaginatively. For example, take a student who wants to study the Indonesian military. The conventional selection is to read books and articles on the Indonesian military, politics, and society. Once a student has done a certain amount of conventional reading, however, she should start trying to select readings more imaginatively.

Sticking with the example of the Indonesian military, an imaginative choice might be to read about the principal-agent theory in economics, which was originally developed to analyze the management of firms. A cursory reading of the literature on Indonesian politics and the military shows that there is an issue of political delegation to the military, which is essentially similar to that analyzed by principal-agent theory. One of the great challenges of Indonesia's transition to democracy has been civilian control of the military, and it is likely that the principal-agent approach could illuminate this problem and even suggest concrete institutional solutions.

A combination like this of hitherto separate literatures is a simple and effective strategy for successful research. After having read the conventional accounts of a particular issue, students should try to identify analogous problems in other subjects they have studied. Otherwise, they may end up assuming that the only literature relevant to the Indonesian military is the literature on the Indonesian military. By broadening the review to consider principal-agent analysis as well, the student's choice of literature means she can potentially write a great thesis without generating any new empirical data on the Indonesian military and without developing any theoretical innovations within the principal-agent approach.

Cast Your Net Widely

Just as it helps to be imaginative about other bodies of research that might be relevant to one's topic, it also helps to be imaginative about the types of sources one consults. The traditional literature review focuses on books published by academic presses and articles published in academic

journals. However, on many questions, especially those involving a policy dimension, actors besides university-based academics might issue relevant reports. In addition, the development of the Internet has made it easier to disseminate research reports in formats other than academic publications. This growth in alternative research producers and outlets for disseminating research makes it advisable to consider a wider range of sources when conducting a review.

Other entities that might produce relevant research include government agencies, international governmental organizations, nongovernmental organizations, think tanks, and independent, freelance researchers. Some of their reports are still produced in print form and are available through any good library collection. Increasingly, though, many of their reports are released electronically and can be found through careful searching on the Internet. Traditional academics are also using the Internet as a vehicle for disseminating their work. Scholars are increasingly posting conference papers, working papers, and monographs on the Internet,[2] and these postings may be work that has not yet been published in a book or journal article.

At the same time, the Internet must be used with great caution. Most academic publications go through peer review, which in most cases helps ensure that the published work meets certain standards of scholarship. In contrast, anyone with access to the necessary equipment can post anything they want on the Internet. Many postings are based on little or no research, make no attempt to be unbiased, and contain factual claims that are questionable. Before including sources found on the Internet in a literature review, be sure to consider carefully whether the items are credible and meet at least minimal standards of scholarly research. Look to see whether the authors have provided their credentials and consider whether these make them credible sources on the subject. Also examine whether an item contains documentation of its sources and whether these appear to be credible. Despite the risks, valuable sources of research exist beyond traditional academic books and journals, and it is worth using the Internet to seek these out. Be sure not to limit your search for sources to just the Internet, however, as any college or

university library will have many items on its shelves that are still not available electronically. To produce a good literature review in today's world will in most cases require doing research using both the Internet and the library.

The Problem of Too Few Sources and the Problem of Too Many Sources

Students sometimes choose a research topic, such as how to address a new policy problem or what can be learned about a recent event, because they think no one has yet studied the issue. In such cases, students expect that there will not be any literature relevant to the question they want to research. It does not pay to be too skeptical on this score; a search for sources often yields more than one expects. Even a search that comes up empty, however, is not a wasted effort. To be able to report that a serious search uncovered no examples of studies that have examined a proposed research question will help demonstrate that the proposed research will fulfill the "contribution to knowledge" criterion for evaluating proposals.

This still leaves the problem of what to discuss in a literature review. The problem of too few sources can usually be solved by thinking in terms of two tiers (or circles) of literature. The first tier (or inner circle) involves studies that directly address the proposed research question. The second tier (or outer circle) broadens the review to consider publications that are relevant to or overlap some part of the proposed research question, even though they do not directly address the same point. In the example of Indonesian civil-military relations discussed above, principal-agent theory would be literature in the second tier. If there is a reasonable body of work in the first tier, in many cases this will be all that a literature review discusses. As the Indonesian example demonstrates, though, even in this case there can be advantages to thinking creatively about literatures outside the inner circle that might supply a specific theory, policy proposal, or research method that could be applied to a proposed research question.

If there is nothing or very little that is directly on the topic a student wishes to research, then the literature review will need to

consider some items in the second tier. It can be helpful here to think in terms of analogies to situations or problems that are similar to the one a researcher is proposing to study. For example, if a student were interested in identifying ways to protect crops from agro-terrorism and could find no studies directly on this topic, she could consider looking for research on efforts to protect crops against natural disease outbreaks. If this literature review revealed findings about ways to address the latter problem, the student could then propose research to consider whether these techniques could be adapted for her problem of interest.

Once a researcher begins to consider literature in this second tier or outer circle, she is likely to encounter the problem of too many sources. The number of potentially relevant publications, especially in well-developed areas of theory, could be vast. Hence, researchers need a way to restrict their focus. It is important not to simply select a few books or articles that one finds at random; instead, here are three rules of thumb for selecting sources:

1. Focus on the leading authorities. Certain authors or studies are likely to be cited quite frequently in the literature. These are probably considered key works, so it is a good idea to respond to what they have to say, even if it means ignoring some less influential studies.

2. Focus on recent studies from high-prestige or high-visibility sources. It usually makes sense to emphasize the most recent research. Among recent studies, look especially for those that have been published in a high-prestige outlet: examples include books from a highly ranked university press or articles in the leading journals in the field in question. Sources that garner a lot of attention are also important to evaluate: in some cases, for example, it might be relevant to assess a book on the bestseller list.

3. Focus on the studies that are most relevant and helpful for your question of interest. The more a study is directly on point for the proposed research, or the more a proposal relies on a study for inspiration about how to approach the research, the greater the role it should play in the literature review.

When there is an abundance of literature, it is not necessary for a review to be comprehensive. The literature review should focus mainly on those parts of the literature that relate to and help advance your specific interests; omit the rest.

Reading

In a literature review, you do not read a book for its own sake. If you are interested in how culture influences politics, you might well decide to review Huntington's *Clash of Civilizations*. You would do so not to find out what the great man has to say, but to see what his work can do for your literature review; you are not interested in the *Clash of Civilizations* for its own sake but only in so far as it contributes to the literature you are reviewing. It is important to remember that most works, especially books, contribute to more than one "literature" simultaneously. Thus, your motivation is instrumental and your attitude is ruthless. No matter how prestigious, interesting, or enjoyable a book, if it does not make a contribution to your specific review, put it down and find a book that will.

Inevitably, a lot of research is largely, or even entirely, based on secondary literature. In this situation, there is a grave danger of the literature review engulfing the whole research project. Avoid this outcome by focusing strongly on the different reasons for reading different sources. Readings that have been consulted for different reasons should obviously be treated differently. There are four standard reasons for reading secondary sources, two of which are relevant for a literature review.

The first reason to read a book is to look for interesting questions on which a research project might focus. For example, while reading Huntington (1996) you might notice the statement that the break-up of a state is more likely in a state where there are substantial communities belonging to different civilizations, as opposed to merely different cultures (137). Both the hypothesis and the evidence are stated very briefly and unsystematically, but seem plausible. A systematic investigation of this hypothesis might make an interesting piece of research.

The second reason to read a book is to look for potential answers to a question that you have already chosen. For example, a student trying to solve the puzzle of the rarity of democracy in Arab countries might look

for answers in the literatures on Arab political culture, oil and politics, and U.S. foreign policy. A discussion of both questions and answers is found in the literature review. In both cases, the material should be treated instrumentally. For example, it is not what Huntington says about global politics that matters, but only his treatment of "cleft countries," the states through which civilizational borders run. A scholar trying to explain the rarity of democracy in Arab countries looks at U.S. foreign policy not to understand its sources or its variation across the world, but its effect on the political regimes of Arab countries. Although such reading is focused and instrumental, it also should be conducted with an open mind as to possible questions or answers.

The third reason to read the secondary literature is to find useful methods to replicate or adapt your research. A project examining the impact of regional organization membership on democracy in the post-Cold War era will need to decide which countries are democracies. In this respect, a student may want to apply and cite Przeworski et al.'s (2000, 23–8) method for deciding whether countries which have not had an alternation in government should be classed as democracies.

A fourth reason for consulting a secondary source is to look for data. Przeworski et al. (2000, 59–69) categorized almost all states in the world between 1950 and 1990 as democratic or authoritarian, and their dataset would be relevant to numerous dissertations. Neither of these references belongs in the literature review section. The methodological reference noted in the prior paragraph belongs in a methodology section, and the data reference noted in this paragraph belongs in either a methodology section or the empirical core of the dissertation.

A final caveat involves avoiding a tempting shortcut. For many subjects, literature reviews already exist in books and dissertations, as review essays in journals, and in online formats such as Wikipedia. While reading such sources to see how others have characterized a field of research can be helpful, it is essential not to rely on others' summaries of existing studies. There is simply no substitute for your own reading. Read for yourself the sources that are most critical for your own interests and draw your own conclusions.

Writing: *Getting Past a Simple List of Sources*

A literature review, even more than most phases of a political science research project, evolves through multiple drafts. Early versions may actually be a list of summaries of books, with occasional critical comments or queries, but the final version will be a focused argument. Some material may survive from first to final draft, but the material that has been changed or omitted will still inform the review and any larger project it is part of as a whole. Intellectual dead-ends and tangents should not end up in the literature review, but this does not mean that they represent a waste of time. A literature review is also a process of elimination, a distillation of a wide-ranging literature down to a specific argument about the state of knowledge in a well-defined field.

As a result, the review should be selective. It is often not necessary to discuss every item you read. The text should discuss only the studies that have a direct bearing on the central focus of your review or your proposed research. In addition, rather than summarizing the studies in their entirety, the review should focus only on the aspects of those studies that are relevant for your purposes. In other words, the content of the final literature review should be decided on a need-to-know (Dunleavy 2003, 61) not a look-at-what-I've-read basis. As Goethe remarked: "Some books seem to have been written not to impart any information to us, but merely to let us know that their author knew something." If you cloud your argument in an attempt to show how much work you have done, your review will make much less impact.

A literature review is not a succession of book reviews. It should not simply summarize, item by item, each publication you have read. A literature review should *not* have the following structure: paragraph 1 notes that book A says X; paragraph 2 notes that article B says Y; paragraph 3 notes that book C says Z; etc.

The literature review *is* an argument not a list. It must establish the intellectual geography of a research topic and locate the author's project within it. This entails the classification of the literature. To do this, it often helps to group individual studies into larger "camps" or "schools of thought." One can do this in terms of different theories they

propose or defend, different methodological approaches they take, or different policies they favor. If you group similar studies together, rather than discuss three like-minded authors separately in three successive paragraphs, you can mention all three together in a single sentence such as "A, B, and C argue that policy X has been ineffective and propose policy Y instead."

This grouping will be easier if you get into the habit of associating individual authors and major camps or points of view with each other. In academic writing, scholars often use the last name of the author of a study as shorthand to refer to the theory or argument advanced by that author. For example, in International Relations, Kenneth Waltz was one of the leading developers of a theory known as "neo-realism." In writing about this approach, other authors will switch back and forth between referring to Waltz, to the Waltzian approach, and to neo-realism.

Another way to classify the intellectual landscape is to look for intersections in partially separate literatures. For example, take a student who has decided to write about the role of the European Union (EU) in the failure of democratization in Belarus. There are large literatures on both the EU and processes of democratization. These overlap to some extent. The EU's existence is argued to be a major democratizing influence on non-EU European countries, especially those that are closest to its borders. The EU also directly and intentionally affects democratization with its policies toward other countries. These actions are part of EU foreign policy and EU policy toward Belarus is part of that foreign policy. This procedure clearly locates the review at the intersection of certain literatures, while also establishing the relationships between the different literatures.

The treatment of individual works should not take the form of a straightforward summary of the work in question. Each work should be subjected to critical analysis, but not criticism for its own sake, nor even criticism for the sake of political science, but criticism focused on the review's research question alone. Critical analysis does not consist of merely, or even always, evaluating a book. In many cases, a piece of literature is not wrong but just not very useful for the project. If

you have chosen your research topic well, your argument will not be that many works are wrong, but that they are irrelevant to your topic because you have framed the question or issue in a slightly different way than have previous authors. So, for example, an article on the role of semi-presidentialism in the *transition* to democracy in Poland would undoubtedly mention the work of Linz and Stepan (1996). Your literature review would probably not argue that Linz and Stepan's work was wrong but rather that it is inapplicable to your topic since their work focuses on semi-presidentialism's threats to democratic *consolidation* (276–83).

Scholars should always strive to engage with the most charitable interpretation of the literature. This is not a matter of fairness but of usefulness. If Huntington is dismissed as a befuddled Orientalist, as frequently happens, his ideas are unlikely to move a research project forward. However, if his ideas are presented as plausible given certain conditions, they may suggest a theoretically significant research project; such an approach might also identify tests that could help determine whether his critics' charges are valid. A really successful literature review can move from being a summary of existing work to becoming a fruitful dialogue with the literature.

Getting to an Overall Evaluation

A literature review summarizes and evaluates the overall state of knowledge or practice on a particular subject. To do this, it helps to describe the literature in terms of what the existing works have in common, disagree about, and overlook or ignore. It can be especially valuable in a research proposal to summarize existing studies in terms of these three categories:

1. Areas of consensus or near consensus. On some issues nearly all of the relevant experts may agree. Such conclusions can be either positive or negative; i.e., they can involve beliefs about what is true or what works or what is false or does not work. Areas of consensus represent the "conventional wisdom" about a subject.

2. Areas of disagreement or debate. In many cases, there exists information and analysis about a topic but no consensus about what

is correct. These areas of debate usually give rise to the alternative "camps" or "schools of thought" mentioned above.

3. Gaps. There may be aspects of a topic that have not been examined yet. These gaps in knowledge might involve questions no one has tried to answer, perspectives no one has considered, or bodies of information that no one has attempted to collect or to analyze.

Once you have identified where there is conventional wisdom, where there are debates, and where there are gaps, you can use the literature review to describe what will be the contribution to knowledge of the research you are proposing. Your contribution can address any or all of these. For example, you might believe there are reasons to doubt the conventional wisdom. In general, you should not accept areas of agreement uncritically. Probing for potential flaws in the reasoning or evidence related to an area of consensus is a way to justify proposed research that might challenge the conventional wisdom.

Weighing in on an existing debate is another possibility. Here, one uses the literature review to show the likely value of research that could help judge the relative merits of conflicting points of view or that could help point the way to a useful synthesis.

Finally, proposing to fill a gap in existing knowledge is an obvious way to frame the usefulness of a suggested piece of research. The relevant gaps can be broad or narrow. In some cases, a topic might essentially be virgin territory: no one has studied any aspect of it. More often, however, the gap will be narrower. People will have studied some, but not all, aspects of a problem, or they will have examined a problem using some theories or methodologies, but neglected others. In this situation, if your goal is to fill the gap you identify, your research proposal would state something like "researchers have studied a, b, and c, which are related to the problem of X, but they have not studied d, which is also relevant to understanding and/or solving X."

When identifying areas of debate, it is important to try to ascertain the reasons for disagreement. Scholars might disagree because they start with different assumptions, because they apply different theories or follow different lines of logical argument, because they rely on different

empirical evidence, or because they use different methodologies. By identifying and comparing the assumptions, theories, data, and methods of the studies you review, you can pinpoint the underlying disagreements responsible for debates in the literature. You can then target your own research on one of the underlying disagreements, which could help resolve an existing debate. By evaluating each of these elements critically, you can also show where there are problems or flaws in existing studies and then target your own research on fixing one or more of these problems in the literature. Finally, as noted previously, you can also look for important issues that the existing research has overlooked and frame your research as an effort to fill this gap.

Conclusions

A literature review should concisely summarize from a set of relevant sources the collective conclusions most pertinent to the questions a researcher is interested in answering. It should also evaluate the state of knowledge in terms of what's right, what's wrong, what's an area of uncertainty or debate that cannot be resolved using the existing research, and what's missing because no one has yet considered it carefully.

The work of academic giants is not generally composed of lengthy literature reviews, but it usually displays a mastery of the literature. A mastery of the literature is not a mere ability to hold lengthy and detailed discussions on different writings, but rather an ability to put the literature to work to ask new questions and propose new answers. The golden rule of the literature review, as with all sections of a research report, is that it must be rigorously focused on fulfilling its role in the type of research of which it is a part. In a dissertation or book, the literature review's role is to elucidate and justify the choice of question and possible answers that were considered. Reviewing the literature is not a process that should be reported as it occurred in the final text, but is rather a process that informs a focused setting of the scene for the argument developed in the text.

Whether one is producing a stand-alone review essay, a literature review for a research proposal, or a literature review section in a finished report, when one proceeds systematically and aims to reach a considered judgment about the state of knowledge on a given subject, the resulting

literature review can itself make a useful contribution to knowledge. An awareness of the general functions of the literature review and the practical issues in writing one makes it more likely that a scholar might enjoy the view from the giants' shoulders.

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Notes

1. For an introduction to Bayesian statistics, see Wonnacott and Wonnacott (1985, 75–9 and 515–75). For a discussion of the relevance of Bayesian reasoning in qualitative research, see McKeown (1999, 179–83).
2. For example, many political science materials of this sort are available through Political Research Online (PROL); this includes papers presented at Annual Meetings of the American Political Science Association (APSA). See www.politicalscience.org.