

Recent Research in Religion: A Citation Analysis

by Martha Adkins

Abstract

This paper reports the results of a study of the citations accompanying research published over ten years in the fields of theology, religious studies, and biblical studies.

Objective

The purpose of the citation analysis project was to determine patterns of material usage by scholars in the discipline of religion. The project proposed to seek answers to questions that frequently cross the minds of theological librarians, including, among others, the types of sources used by researchers in our fields, the prominence of primary sources, the currency of sources cited, dominant languages of publication and research, and most frequently used journals.

Methods

A sample of peer-reviewed articles from these fields, chosen from journals indexed by the *ATLA Religion Database*®, was examined from a variety of angles. We analyzed 4,107 cited references from 96 articles for source type, publication language, dating, and authorship; articles were further examined for the peer review status of the publishing journal and the subject area covered.

Results

The cited references of the 96 articles analyzed were primarily monographs, published in English, published and created within a few decades of the publication of the citing articles, and mostly with a single author. The 14 most frequently cited journals covered topics in religion and the social sciences.

Conclusions

The results reported here are expected to be informative to theological librarians in making collection development decisions and building subject liaison relationships. Librarians may choose monograph acquisitions over other types or consider promoting other types of resources differently to encourage use. Theological librarians might consider subscribing to journal titles which overlap in subject coverage with the social sciences. Librarians and discipline faculty will likely find many conversation points among the data presented here.

Introduction

Citation analysis, the close examination of the citations of a scholarly source, can yield a vast amount of information about the research behavior of scholars. Citation analysis in a particular discipline is an empowering practice for librarians and researchers, offering a snapshot of the types of sources most often used by scholars in the discipline and answering questions about interdisciplinary research and publishing practices. However, citation analyses are time-consuming projects that require a great deal of advance planning, attention to detail, and the paradoxical need for both rigid guidelines and flexibility in interpretation. The present article reports the results of a relatively large-scale citation analysis of research in religion. Incorporating lessons learned from other published citation analyses, the methods are presented in detail, with the goal of assisting other researchers in the planning of such a project. Results are presented graphically with some explication, then discussed more holistically and with an eye to practical application — in particular by librarians working with faculty in the discipline of religion.

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The rationale for the project was to paint a picture of the research habits of scholars in the field of religion based on their use of sources of information for peer-reviewed published research. Librarians serving religion scholars in academic communities may find this picture informative in making collection development decisions and planning instruction activities. Researchers and scholars in the field may also take an interest, perhaps aiding librarians in building subject liaison relationships.

The analysis sought to answer a number of questions:

- What types of sources do researchers in the discipline of religion cite most often (i.e., journal articles, monographs, or other sources)?
- Are they using information sources other than monographs and journal articles, such as web sites and social media?
- Do researchers prefer primary or secondary sources?
- How current are the sources being cited for research in our disciplines?
- What are the journals that religion researchers most frequently cite?
- What are the most frequently occurring languages of publication?
- What are the most frequently occurring languages of cited sources?
- What is the academic status of authors of cited research (i.e., are cited sources published by faculty, students, or independent scholars)?
- To what extent are the fields of theology, religious studies, and biblical studies research interdisciplinary?

Context of the study and brief survey of literature

The project presented here is an expanded version of a preliminary project completed in 2014. The goal of that project was to analyze a small number of articles (20 in the sample set), published over a six-year period of time, in order to establish the methodology and procedures for a larger project and to get at least a snapshot view of the citation practices in the field. In 2017, the project was expanded to a full decade of publications and attempted to analyze a much larger number of articles. Prior to the 2014 project, the survey of literature was made with an eye to methodology and rationale; as the 2017 project took shape, the survey of literature included problems encountered, in addition to rationale and methodology.

The search for literature was ongoing for the duration of the project and was guided by a few parameters. Articles which presented guidance on methodology, rationale, and application of results were held in higher priority than those which simply presented results or offered discussions of either local or specific disciplinary applications. A search for “citation analysis” in humanities databases generally retrieves two types of research: studies of intratextual citations of authors or citations within bodies of literature (e.g., studies of biblical citation, intrabiblical and by theologian) and studies of the sources cited in research articles. This second type of citation analysis was the focus of the literature search at the genesis of the present research project, and at the outset, results were few.

Ardanuy presents a meta-analysis of 162 citation analyses in the humanities published between 1951 and 2010 and draws the conclusion that use of citation analyses in the humanities remains low, despite an increase in these types of studies in the 1970s and 1980s.¹ Ardanuy’s discussion of the sometimes grey and arbitrary designations between humanities and social sciences disciplines presents one problem in searching for citation analyses in the humanities.² Evidence of this was borne out in the planning of this project, and therefore the search of the literature was expanded beyond the humanities to disciplines in the social sciences and some in the natural sciences. At this point, more publications with information about methodology, rationale, and application of results began to surface.

¹Jordi Ardanuy, “Sixty Years of Citation Analysis Studies in the Humanities (1951-2010),” *Journal of the American Society for Information Science and Technology* 64, no. 8 (2013): 1751-1755.

²Ardanuy, 1752.

For methodology, a few studies came to the forefront as offering concrete advice for constructing this type of project. The comparative analysis of Hoffman and Doucette is enlightening for the planning of criteria on which to analyze citations, as the authors advise on such fine points as analyzing citation age in addition to publication age.³ This would prove to be an interesting point in the present study, as many of the sources cited were translations of older works or reprintings of older primary source material. Pancheshnikov's comparative study⁴ and the how-to, handbook style of Black⁵ also provide a clear guide for the researcher embarking on a citation analysis project. As the project took shape and the analysis of results began, the papers of Crawford⁶ and Currie and Monroe-Gulick⁷ provided examples that informed the present study's display and explanation of results.

As few and far between as citation analyses in the humanities are in a search of the literature, examples of citation analysis in the discipline of religion are even more rare. Gundry, Senapatiratne, and Trott present an introduction to citation analysis in the discipline of religion for the benefit of theological librarians, as well as the valuable distinction between a traditional citation analysis (like the one presented here) and a content citation analysis, a more in-depth analysis of the value of a citation.⁸ Gundry et al. relate the type of DIY citation analysis presented here to the things that might inspire a librarian to take on a project like this, such as the journal impact factor and other measures of the importance of particular journals in the sources or assessing local practice.⁹ Gundry et al., published one year after the preliminary portion of this study, indeed held a place of importance as the project moved to the larger phase.

Methodology

As previously mentioned, this project began in 2014 with a small sample of 20 articles and was then expanded to include the analysis of the cited references of 96 peer-reviewed articles published between 2009 and 2016, an eight-year period.

This sample set was extracted by conducting a null search of the *ATLA Religion Database*[®], with results limited to Articles, Scholarly (Peer Reviewed) Journals, and the date range limited to 2009 to 2016. This search yielded 71,635 results. A random number generator was used to create a list of 150 integers between 1 and 71,635, inclusive. These numbers were then correlated to the numbered result list, and the initial sample set of publications was compiled. The ATLA Accession Number was noted for each item in the set, which ensured that each item in the set had a unique identifier, which would allow easier searching and finding in the database for analysis, as well as for quality checking as the project progressed.

Sources in the sample set were vetted as they were identified and the accession number was noted. This first round of analysis showed that a number of results were not, in fact, articles, though they may have appeared in peer-reviewed journals. Poems, images, obituaries, and letters from and to editors are only a few of the non-article sources that appeared in the original set of 150. Weeding these items out, the sample set was narrowed to 96 articles.

The sample set of 96 articles underwent the first phase of analysis, for publication date, publication language, number of authors, author affiliation, and number of cited references.

³ Kristin Hoffman and Lise Doucette, "A Review of Citation Analysis Methodologies for Collection Management," *College & Research Libraries* 73, no. 4 (2012): 321-335.

⁴ Yelena Pancheshnikov, "A Comparison of Literature Citations in Faculty Publications and Student Theses as Indicators of Collection Use and a Background for Collection Management at a University Library," *The Journal of Academic Librarianship* 33, no. 6 (2007): 674-683.

⁵ Steven Black, "Practical Applications of Do-It-Yourself Citation Analysis," *The Serials Librarian* 64 (2013), 285-298.

⁶ Gregory Crawford, "A Citation Analysis of the Classical Philology Literature: Implications for Collection Development," *Evidence Based Library and Information Practice* 8, no. 2 (2013): 214-224.

⁷ Lea Currie and Amalia Monroe-Gulick, "What do Our Faculty Use? An Interdisciplinary Citation Analysis Study," *The Journal of Academic Librarianship* 39, no. 6 (2013): 471-480.

⁸ Jenifer Gundry, Tim Senapatiratne, and Garrett Trott, "Citation Analysis and Its Potential in Theological Libraries," *Theological Librarianship* 8, no. 2 (2015): 16-21; see especially p. 18. <https://theolib.atla.com/theolib/article/view/389>.

⁹ Gundry, et. al., 16.

For purposes of the present discussion, cited references are identified as those references listed in the end of paper bibliography, references, or works cited list, and in footnotes or endnotes within the paper. Because this project was meant to examine the *characteristics* of sources cited, rather than the intensity with which they were cited, all efforts were taken to count each source once, regardless of the number of times that source was cited within an article.

Each cited reference was then analyzed. Publication and creation dates were noted, as well as publication and creation language, the number of authors, and types of sources cited. Journal citations were examined in more depth to determine interdisciplinarity and frequently cited sources.

Results

Sample Set of 96 Articles

The project analyzed the 4,107 citations of 96 articles.

Publication Date

Publication dates of this sample range from 2009 to 2016. Twenty-nine were published in 2012, 25 articles were published in 2013, 13 were published in 2011, 10 were published in 2015, 8 were published in 2010, 6 were published in 2009, 4 were published in 2014, and one was published in 2016.

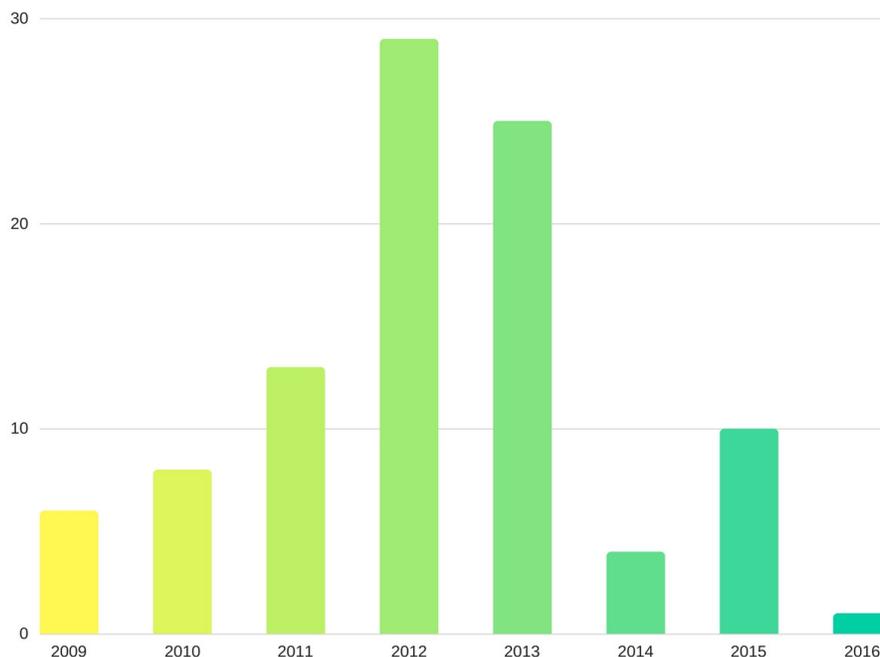


Figure 1: Publication dates of sample set.

Publication Language

Ninety-eight percent (94) of articles in this set were originally published in English. The remaining 2% were published in Portuguese (2).

Authorship

The majority of articles in this set had just one author: 90 articles (94%). One article had three authors, 3 articles had two authors, and 2 articles had four authors.

The affiliation of the authors of these articles was also examined, specifically whether the authors were academics, students, or other types of scholars and researchers at the time the articles were published. This information was found in a few articles in addenda to the text, but for many authors, some research was required to locate authors' CVs or biographies. For the most part, this information was relatively easy to discover.

After analysis of the 96 articles, author affiliations were assigned to one of five categories. University Faculty is an inclusive descriptor, designating authors who held faculty appointments at colleges, universities, or other institutions of higher education (such as seminaries) at the time the article was published. Post-Doctoral Researchers and PhD Students were identified explicitly as such, either in addenda to the authors' articles or in their CVs. The Independent Scholar/Researcher identifier captures authors who had no academic affiliation at the time of publication. Finally, the Unknown identifier was used in cases where the information as to what the author had been doing at the time of publication was simply unavailable.

For these 96 articles there were a total of 107 authors, the majority of whom were identified as University Faculty. Seventy-two authors were identified as University Faculty, 2 authors were identified as Post-Doctoral Researchers, 8 authors as PhD Students, 12 as Independent Scholars or Researchers, and the affiliation of 13 authors was not determinable.

4,107 Cited References

The citations in these articles appeared in many forms, reflecting the variety of styles followed by different publications. In this sample set, there were 4,107 cited references, identified as those listed in the end of paper bibliographies, references, or works cited list, as well as those that appear in footnotes or endnotes within a paper. The 96 articles averaged 42.8 cited references per article. The least number of cited references appearing in an article was four; the most cited references appearing in an article was 120.

Publication and Creation Dates

As analysis of publication dates of cited references began, a few hurdles appeared. Certain issues had to be addressed and methodology adjusted. One of these issues was that translations of older, sometimes ancient, texts were cited with their modern translation dates. For example, a translation of Augustine's works from the 4th century may be cited with a publication date of 1990. Retaining the 20th-century date for that source would result in an inaccurate picture of the types of sources used by researchers. Therefore, analysis of these items required more time, as creation dates had to be reconciled with edition publication dates. For texts known or suspected to be primary texts of this nature, this extra step was inserted into the process, and creation dates were noted alongside the publication dates given in the reference lists for modern editions. This point of analysis came to the forefront as the recording of data revealed that although the publication date for a given source may be within the decade before the publication date of the citing article, the creation date for that source may have been far earlier. Because of this, we felt it important to report these two time points separately.

Another issue that arose with many of the older sources cited, coming out of the research into creation dates alongside edition publication dates, was that many texts are associated with a range of dates: for instance, a manuscript dated roughly to the 15th century, or even more generally, to somewhere between the 4th and 6th centuries. To normalize these anomalies with the larger set of cited references with firm dates, and to be able to attempt a picture of things like time lapsed between creation and citation, a mid-century date for single century ranges was assigned (e.g., 1450 for an item dated broadly to the 15th century) and a mid-century date at the end of the range for larger date ranges (e.g., 550 for something dated

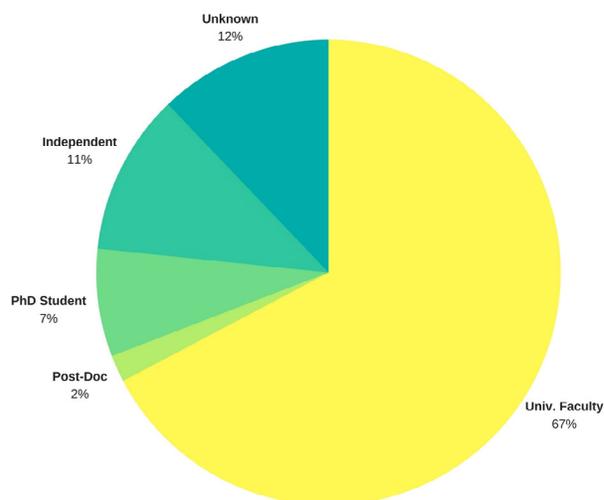


Figure 2: Author affiliation in sample set.

4th through 6th centuries).

There were a number of items for which no publication or creation date was noted. For some of these, the information was missing from the citation and could not be found; some of these were broken URLs, which were essentially dead ends, and some were biblical sources. The decision was made to record biblical texts with unknown creation dates. The time necessary to establish (and defend) creation dates for these sources would extend far beyond the realm of the present study.

The result of the modification of methods in the case of creation, publication, and citation dates perhaps results in a considerable margin of error in this area of the analysis. However, if the reader takes the inexact nature of citation, especially of translations and editions of older works, into account, the data may still be informative in a number of ways. The data are not granular enough to illustrate patterns of use of particular modern translations or editions, an analysis that awaits further study.

Using creation dates, the source material in the 4,107 cited references is from 450 BCE to 2016 with a number of sources having unknown creation dates or publication dates.

Of the cited references, 199 had unknown or indeterminate creation dates; this left a total number for the analysis of creation date and publication date of the citing article of 3,908. Looking specifically at the amount of time between the creation of a source and the publication date of the article citing it, the intervening time was an average age of 60.5 years. The maximum number of years between was 2,464. Of these sources, 1,508 were (38.6%) were created in the decade before the publication of the citing article, with 47 of these sources created in the same year they were cited. Meanwhile, 931 sources (23.8%) were created 11-20 years before the citing article was published; 497 (12.7%), 21-30 years before; 286 (7.3%), 31-40 years before; 208 (5.3%), 41-50 years before; and 246 (6.3%), 51-100 years before.

Beyond the 100 years before the publication date of the citing article, most cited references were created (in descending order) 101-500 years before (143 cited references), 501-1000 years before (19 cited references), and between 1000 and 2000 years before (40 cited references). Finally, less than 1% of cited references (30) were created more than 2000 years before the publication date of the article citing them.

Looking at the amount of time between the publication date given for a source in the citation and the creation date for that source, another picture appears. The 199 unknowns were removed for the purposes of this analysis, resulting in 3908 cited references to analyze. The average time lapsed between creation date and publication date was 15.7 years, with a maximum amount of time at 2341 years, and most sources (3774, or 96.6%) created and published in the same year.

Of those sources with a gap between creation date and the publication date given in the cited reference, 53 sources were created between one and 100 years before the publication date given in the cited reference, 52 sources were created between 101 and 1000 years before the publication date given in the cited reference, and 29 sources were created more than 1000 years before the publication date given in the cited reference.

Analysis then turned to the amount of time between the publication date of the citing article and the publication date (distinguished from creation date) of cited references. The average amount of intervening time was 44.9 years. The maximum number of years was 2464, and again the minimum was zero, with the citing article and cited reference published in the same year. Of the cited references, 1,522 were published in the decade before the citing article, with 47 of these published in the same year. Meanwhile, 953 cited references were published 11-20 years before the citing article, 523 cited references were published 21-30 years before the citing article, 302 cited references were published 31-40 years before the citing article, and 220 cited references were published 41-50 years before the citing article. In addition, 237 cited references were published 51-100 years before the citing article, 98 cited references were published 101-200 years before the citing article, 23 cited references were published 201-1000 years before the citing article, and 138 cited references were published more than 1000 years before the citing article.

	Publication date of citing article - creation date of cited reference	Publication date of cited reference - creation date of cited reference	Publication date of citing article - publication date of cited reference
Average time between	60.5	15.7	44.9
Maximum time between	2464	2341	2464
Most frequent time range	0-10 years	0 years	0-10 years

Table 1: Three data points for each area of analysis of dating for cited references.

Publication and Creation Language

Twenty-five languages were represented in the 4,107 cited references examined. Of these, 3,383 sources were cited as English-language sources; English was the language of creation and publication for 3,105 of these; that is, of the 3,383, 278 were translations into English of materials created in languages other than English.

Of the 278 sources cited as English that were actually works translated from non-English languages, 12 languages are represented: Arabic, Bengali, Danish, Ethiopic, French, German, Greek, Hebrew, Hindi, Italian, Latin, and Sanskrit.

In addition to sources originally in English, the other languages with original source material represented in at least double digits were Arabic, Danish, French, German, Greek, Hebrew, Japanese, Latin, Polish, Portuguese, Punjabi, and Romanian.

Fifty-six sources are noted as Unknown language. These are primarily incomplete citations or citations of web sources where little or no information other than a broken URL was given.

Sixteen sources cited were created using more than one language. Most commonly this was material in Greek and Latin; in Greek, Latin, and German; in Hebrew and English; in Greek and English; and in Greek and French.

Authorship

The majority of the cited references had a single author, though this statement does need qualification. For the purposes of this study, the Bible was considered to have an unknown number of authors. Several types of sources were not cited completely enough to allow for authorship to be counted. These included a number of films, works of art, some musical recordings, web sources, and other sources where information is insufficient to definitively assign a number of authors. Where a corporate author could be identified as such, it was counted as a corporate author; otherwise it was noted as unknown.

Keeping these things in mind,¹⁰ 91.2% (3561) of sources in this set have a single author; 5.17% (202) have two authors; 1.54% (60) have three authors; 0.61% (24) have four authors; 0.34% (13) have five authors; 0.18% (7) have six authors; 0.05% (2) have seven authors; 0.03% (1) have eight authors; 0.05% (2) have ten authors; and 0.82% (32) were considered to have corporate authors. There were 202 articles that have an unknown number of authors.

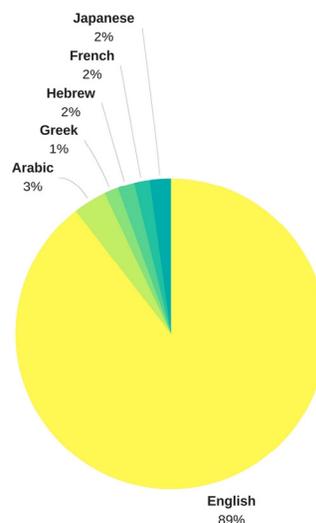


Figure 3: Six most frequently occurring languages of publication for cited references.

¹⁰ Percentages are from the total number of authors that could be counted, 3,872.

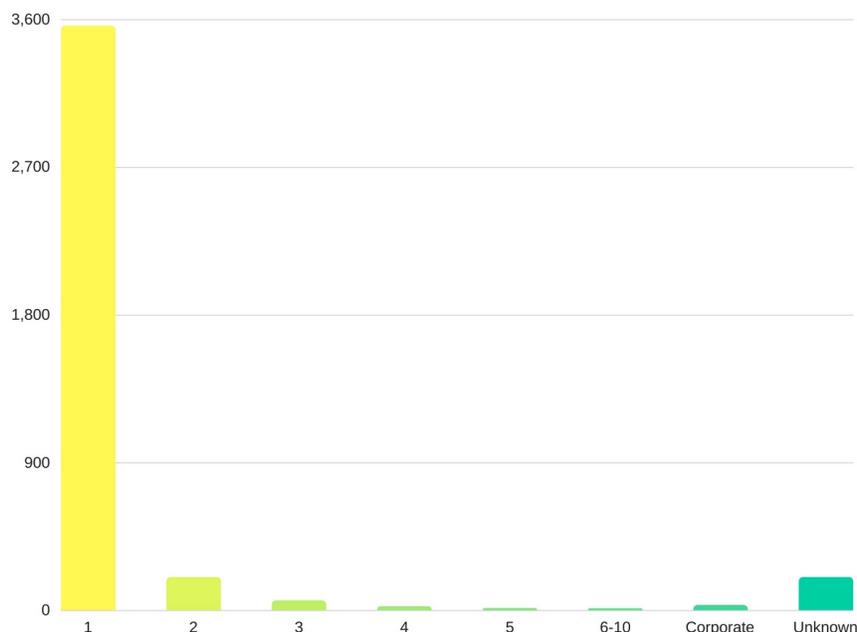


Figure 4: Number of authors per article in cited references.

Sources Cited

The majority of the 4,107 cited references were monographs, here understood to include books, edited volumes, anthologies, and collected works.¹¹ These made up 51.6% of the cited references. Journal articles comprised 23.7% of the cited references. The next most frequently cited types of source were book chapters, counted as such when an individual chapter was cited separately from the citation for an entire edited volume; 11% of cited references were such chapters. Web sources, which in this count include entire web sites and individually cited web pages, comprised 2.5% of cited references. Reference source citations included citations to entire encyclopedias and dictionaries as well as to individual entries, counted as they were cited, and lexica, handbooks, and manuals; these combined made up 1.2% of the cited references. Other cited references were to theses and dissertations (0.8%); interviews (0.6%); conference presentations, proceedings, or lectures (0.5%); government documents (0.4%); personal correspondence (0.3%); and unpublished manuscripts (0.3%).

What the author of this study came to vaguely identify as “Early texts” was increasingly problematic, as seen in the differentiation between publication and creation dates. The group includes those primary texts that range in creation date from ancient times to the 16th century CE. These sources could have been assigned an infinite number of detailed identifiers, like Biblical, Apocryphal, Ancient, Late Antique, or Early Medieval, but this project demanded simplicity. Thus, the broad identifier “Early texts,” was assigned to a group of sources that made up 2.7% of all cited references. Biblical sources were counted as such when citations referred the reader to a specific book of the New Testament or Hebrew Scriptures; references to apocryphal works were counted as “Early texts,” discussed below. Three percent of cited references were to biblical sources.

The remaining 1.3% of references were to sources like musical recordings, films, artwork, archival documents, and records and only occurred in single digit instances. The unknowns in this particular portion of analysis came from those web source citations that contained broken URLs and little other information; 0.07% of sources were of unidentifiable type.

¹¹ It is acknowledged that the scope of this designation may be problematic, especially to an audience of librarians. The intensity of this type of analysis demanded simplification where simplification could be made, and placing these types of non-serial, non-reference sources together was one such concession.

In the subset of Articles (972 cited references), 816 (84%) were from peer-reviewed publications, while 111 (11.4%) were from publications that are not peer-reviewed.¹² For the remaining 45, that information was not readily available. Some of these were old publications no longer in print, which the author of this study could not find indexed. Some were foreign publications, the information for which was undecipherable at the time of the study and compilation of data, primarily due to the author's unfamiliarity with those languages and not having access to expert assistance.

As for the publications cited in article references, 556 newspapers and journals were represented. Of these, 460 were peer-reviewed journals, 63 not peer-reviewed journals, and the peer-review status of 33 journals was indeterminate. The most frequently cited journals were determined in this project to be those cited six times or more, and in multiple articles. The following table presents the fourteen most frequently cited journals alongside frequency of citation as well as the number of articles citing each journal. Also in this table are subject classification categories. (These are taken from the *ATLA Religion Database*[®] for journals indexed there; for the two journals not indexed in ATLA, classification categories are from Ulrichsweb and are noted in the table.)

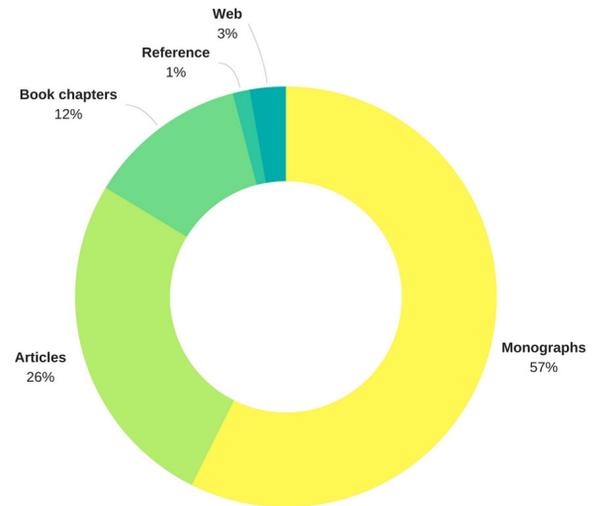


Figure 5: The five most frequently occurring types of sources in cited references.

Journal Title	Classification Categories	Times Cited	Number of Articles Citing
<i>Journal for the Scientific Study of Religion</i>	Sociology; Religions and Their Study	25	8
<i>Journal of the American Academy of Religion</i>	Religions and Their Study; Theology	8	7
<i>Journal of Biblical Literature</i>	Biblical Studies	11	6
<i>Journal of Psychology and Theology</i>	Ulrichsweb: Psychology; Religion and theology	11	5
<i>Journal of Religious Ethics</i>	Ethics/Moral Theology	6	4
<i>American Journal of Sociology</i>	Sociology	7	4
<i>Psychological Bulletin</i>	Ulrichsweb: Psychology	7	4
<i>American Sociological Review</i>	Sociology	9	4
<i>Sociology of Religion</i>	Sociology	9	4
<i>Journal for the Study of the Old Testament</i>	Hebrew Scriptures/Old Testament	6	3
<i>New Testament Studies</i>	New Testament	6	3
<i>Journal of Religion in Africa</i>	Black Theologies; Christian Interreligious Dialogue/ Theology of Religions/ Comparative Theology; Africa; Religions and Their Study; Social Studies	8	3

¹² Recall that these citations are those references in the peer-reviewed articles sampled from the *ATLA Religion Database*[®], not the articles themselves.

Journal Title	Classification Categories	Times Cited	Number of Articles Citing
<i>Journal of Personality and Social Psychology</i>	Psychology/Psychiatry	9	3
<i>Religion</i>	Religions and Their Study	10	3

Table 2: The 14 most frequently cited journals in the cited references.

The interdisciplinarity of the field of religion and theology research is most prominent in this set of numbers: half of the fourteen most frequently cited journals in this sample fall under the social sciences, and four of these journals are not directly related to religion.

Challenges of the project

A number of limitations and challenges presented themselves throughout this project. One of the greatest challenges of this type of research is the time commitment required. Librarians interested in taking on a citation analysis project alongside regular work commitments must be aware that it is difficult and time consuming. The smaller analysis of 20 articles that launched this project took approximately 100 hours from start to finish, and the larger project, presented here, took several hundred hours.

This project benefitted immensely from two faculty research grants, which allowed the hiring of two research assistants for a total of 80 hours of work. Two skilled volunteers also lent their hands and minds to the collection of data. Without the assistance of these four individuals, the project timeline would have been considerably prolonged. That said, the addition of minds involved required explicit procedures for data collection, and those procedures ultimately had to be compiled as the need arose. Ultimately, more time was devoted to quality checking than had been anticipated, and unfortunately some articles' references could not be counted due to inaccuracies in the collection of the data.

Dating has already been discussed, and it presented a challenge. An analysis of the citation patterns of just the "early texts," as they are identified in this study, would be quite interesting and would inspire some fascinating conversation between theological librarians and discipline faculty, as well as among librarians themselves. The decision to group so many centuries of texts together made overall analysis a little less onerous but did leave the questions of that group of texts unanswered. A few questions that may be answered with another detailed study include which modern translations or editions scholars use (or not) and the frequency of the use of early texts in original languages versus translations. The number of "unknowns" and "indeterminates" has been noted. The number of citations missing information or containing incorrect information (e.g., incorrect dates, titles, first names used as last names, misspellings and other typos) was a surprising finding. In this sample set there were also a number of citations to unpublished information, which were impossible to verify. These items included unpublished theses and dissertations and unpublished manuscripts not available for review by this author. Many web sources were cited with sparse citations and broken URLs, which made them difficult to count and analyze, resulting in a greater percentage of the "unknowns" in each category belonging to web sources.

Conclusion

It was clear in completing this study that the results will be most useful for collection development plans and decisions, as well as for initiating fruitful conversations with liaison faculty regarding use of sources and the editorial process. Librarians who engage in this type of research will encounter a variety of sources previously unknown to them, which can be quite enlightening. A corollary project analyzing the citations of faculty at one's own institution would be useful in comparing local behavior to trends in the discipline.

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