The organization of psychological assessment instruments for religiosity and spirituality 1,2

-Relevant subject headings in the APA PsycTests database-

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Although the number of studies related to the psychology of religion and spirituality has increased dramatically around the world since the late 20th century, there appears to be less enthusiasm for this sub-field among Japanese empirical researchers. One possible reason is the lack of a relatively comprehensive yet convenient Japanese-language research database that can be used to retrieve psychological assessment instruments; such a database is essential to the initial phase of empirical investigation. Here, we introduce four distinct English-language databases relevant to psychological testing and measurement with a particular focus on APA PsycTests, one of the largest and most readily available databases in the U.S. for identifying psychological assessment instruments relevant to the study of religion and spirituality. Although it is a complex database, it is relatively manageable even for non-English-speaking users. By consulting the subject index within APA PsycTests, we created a list of American Psychological Association (APA) "subject headings" related to religion and spirituality that, taken together, yield a total of 1,444 tests within APA PsycTests. We categorized these subject headings according to six meaningful topic areas: General, Beliefs and Denominations, Organizational, Practical/Experiential, Conceptual, and Therapeutic. Instead of the hit-and-miss approach that many scholars often employ when using existing Japanese-language databases, this list of subject headings provides researchers with a clear and comprehensive overview of the topics covered by tests and measurements in the field of the psychology of religion and spirituality.

Religion and spirituality constitute an important cultural fabric of our society, and theologians and other scholars have been exploring the written and spoken words of various religious doctrines for millennia. However, it was not until the late 20th century that psychologists and other social scientists began consistently investigating religion and spirituality using empirical methods (Ribaudo & Takahashi, 2009). Although some empirical efforts were made earlier (e.g., Allport, 1950), the field began gaining traction particularly after 1991 when the World Health Organization (WHO) identified spirituality to be an important component in determining Quality of Life (QOL). In fact, the

number of journal articles retrieved by searching for the keywords "religion" or "spirituality" in the *APA PsycInfo* database, published up to 1990, is only 10,054, whereas the number of articles published since 1991 quadrupled to 45,188.

In Japan, empirical efforts to examine the psychology of religion and spirituality have likewise increased substantially over the last few decades; however, compared to the U.S. and Europe, the field remains in its infancy when judged in terms of the number of publications, empirical researchers, viable presentation outlets, and professional organizations (Takahashi & Kato, in press). There are various reasons for this shortcoming. For example, there is

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generally a negative view of religion/spirituality among laypeople in Japan, due largely to the history of the Japanese government using religion as a propaganda tool (Rohlen, 1978; Takahashi, 2016). Sensational crimes committed by religious cults have contributed to this unfavorable research climate as well. In the social sciences, many researchers still perceive religion/spirituality to be too metaphysical a construct of empirical research. As such, there is little ongoing effort to create a consensus on the basic definitions of the key constructs. In addition, the federal government recently implemented a new curriculum for the college education that took resources away from non-STEM fields including psychology and religion/spirituality. This seems to have exacerbated the decline not only in funding but also in enthusiasm for empirical research.

On a more practical level, psychological researchers in Japan may be reluctant to study religion and spirituality due to the lack of a convenient and comprehensive database of assessment instruments. While all manuscripts published domestically are stored in the National Diet Library databases (CiNii Books and CiNii Articles), there is no database specific to psychology or religion/spirituality. For example, a simple keyword search for religion (宗教) produces 148,718 results in CiNii Articles, but there are no efficient functions in these databases to distinguish empirical studies from other types of manuscripts such as magazine essays, newspaper articles, political commentaries, etc.

The Japanese language's unique linguistic characteristics further complicate the use of Japanese in a database search. Like other Asian languages, including Chinese and Korean, the Japanese language traditionally uses unpunctuated/un-spaced text, and the meaning of a word (or part of a word) is often inferred from the context (Prasoon, 2015). For example, when keyword searching for studies involving religious "cult" (カルト), all papers (empirical or otherwise) involving Imunocult (イム ノカルト), a type of colorectal cancer screening method. are displayed. Similarly, "religion/religious" (宗教) is searched as a keyword, the search results include all publications that contain religion/religious anywhere within their bibliographic information (e.g., "Department of Religion" listed within the author's Affiliated Institution, "religious newspapers" listed in Publication Outlet, etc.). In addition, it is extremely difficult, if not impossible, to narrow the search to those publications introducing new measurement tools.

Although religion- and spirituality-related constructs in Japanese and English are not always convertible, Japanese researchers are likely to benefit from using databases in English not only because these databases are more user-friendly but also because they may reveal novel concepts not yet well-known in Japan. A case in point is the concept of spirituality, which was not examined empirically in Japan prior to 2002 (see 高橋・井出, 2004). Such databases often prove too challenging for students and novice researchers in Japan to use, however.

At present, there are four major English-language databases that can be used to access information about psychological tests and measures. While these four databases often overlap in terms of the information they provide, they are nevertheless unique in their coverage, and none can be substituted for another. Health and Psychosocial Instruments (HaPI) provides information about behavioral tests (both psychological and non-psychological) that are relevant to the health sciences. Mental Measurements Yearbook with Tests in Print (MMY-TIP) provides information about and reviews of selected Englishlanguage, commercially available tests. APA PsycInfo, produced by the American Psychological Association (APA), is the most comprehensive database of scholarly journal articles in the field of psychology, and finally, APA PsycTest³ is an index and repository (when full-text tests are available) of psychological tests developed for research.

Of these four databases, APA PsycTests is the one most relevant to researchers seeking to identify the fullest range of psychological tests of religion and spirituality, as it provides bibliographic information on a significantly greater number of tests in this subfield compared to both HaPI and MMY-TIP. APA PsycInfo does not provide bibliographic information about assessment instruments; however, it can be

utilized very productively in tandem with *APA PsycTests*, as discussed below.

The objective of this paper is to provide researchers with a comprehensive list of subject headings that can be utilized in the APA PsycTests database to identify psychological instruments relevant to the study of religion and spirituality. "Subject headings" refer to the controlled vocabulary of terms generated and maintained by the APA's Thesaurus of Psychological Index Terms for use in organizing bibliographic records by topic within APA databases. Subject headings describe the core topical content of a database record, and they tend to correspond to distinct areas or objects of inquiry within a given academic discipline. The list of subject headings provided here will help researchers who may otherwise inadvertently miss relevant topics when using the APA PsycTests database. Further, such a list is particularly valuable in Japan as an accumulation of empirical findings in the field of religion and spirituality is urgently needed.

Known as "subject searching," searching within the subject field of a database for results corresponding to one or more specific subject headings offers a number of advantages compared to ordinary keyword searching. Keyword searching is useful to novice researchers who wish to find search results matching whichever words they believe will best describe their research topic. Keyword searching may also prove useful to researchers investigating very new or cutting-edge topics to which subject headings have yet to be applied. However, a keyword search is limited to the user's existing knowledge of relevant vocabulary in their field of research, and this knowledge may fail to correspond to the terminology that is actually used in the field of research. For example, a database user researching the consecrated personnel of religious organizations may be aware of the need to search for terms such as "priests" and "rabbis" but may be unfamiliar with terms such as "clergy" or "ministers." Therefore, any given keyword search is likely to generate at least some irrelevant results (i.e. "false hits") and/or incomplete results (i.e. "misses"). This potential for user error is significantly reduced if the user instead searches for results corresponding to one or more subject

headings related to their topic. Because the list of subject headings used in a given database is predetermined, and because these subject headings align very closely with the core topical content of the database's records, a researcher who is familiar with the relevant subject headings in their field can construct subject searches which return relevant results alongside very few false hits or misses. The researcher's lack of familiarity with the specific subject headings relevant to their research topic within a given database is the chief obstacle standing in the way of this outcome.

Method

APA PsycTests provides bibliographic information about more than 32,000 psychological tests and assessment instruments. Many tests indexed in APA PsycTests are shortened, back-translated, and/or population-specific versions of an original test, and these modified versions are typically available full-text. Subject indexing is robust in APA PsycTests; tests are typically indexed under multiple subject headings.

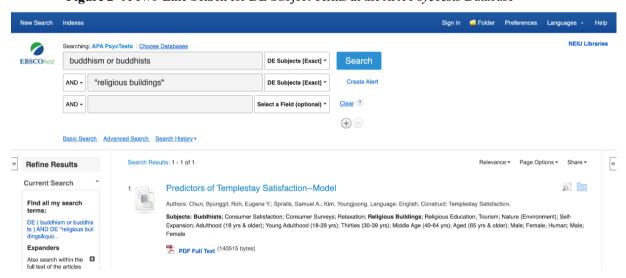
For instance, in Figure 1, a researcher has selected "Advanced Search" and has chosen to search within the "DE Subjects [Exact]" field for two subject terms: Buddhism or Buddhists. The user has separated these terms by the word "or" which functions as a Boolean operator in the database; in this example, the "or" operator instructs the database to retrieve results matching either the subject term Buddhism or the subject term Buddhists (or both subject terms, when applicable). This search would be useful to a researcher seeking instruments that measure either Buddhism as a religion or Buddhists as practitioners of that religion.

In Figure 2, the researcher has added a third subject term, "religious buildings," to the search demonstrated in Figure 1. The user has separated this third term from the first two terms by the word "AND" which functions as a Boolean operator in the database; in this example, the "and" operator instructs the database to retrieve only those results which match the third subject term, "religious buildings," in addition to one or both of the first two subject terms (i.e., Buddhism or Buddhists). This

NEIU Libraries Searching: APA PsycTests | Choose Database DE Subjects [Exact] * Search EBSCOh buddhism or buddhists AND . Select a Field (optional) AND Select a Field (optional) (+) = Basic Search Advanced Search Search History Search Results: 1 - 32 of 32 Relevance ▼ Page Options ▼ 66 « Refine Results Current Search 0 0 Three Teachings of East Asia Inventory (TTEA) Find all my search Authors: Lin, Yi-Ying; Swanson, Dena Phillips; Rogge, Ronald David. Language: English. Construct: East Asian Tenets Subjects: Asians; Buddhism; Religious Beliefs; Ideology; Confucianism; Incremental Validity; Religion and Spirituality Measures; Adulthood (18 yrs & older); Male; DE buddhi Female: Human: Male: Female Expanders PDF Full Text (439003 bytes) Also search with full text of the a 0 Nonclinging to Ego Scale (NCES) Authors: Ridthikerd, Pummarat; Huansuriya, Thipnapa. Language: English. Construct: Nonclinging to Ego. Limit To Subjects: Buddhism: Egocentrism: World View: State Trait Level Measures: Adulthood (18 yrs & older): Male: Female: Human: Male: Female ☐ Full Text

Figure 1 A One-Line Search for DE Subject Terms in the APA PsycTests Database

Figure 2 A Two-Line Search for DE Subject Terms in the APA PsycTests Database



search would be useful to a researcher seeking instruments that measure religious buildings specific to Buddhism or to practitioners of Buddhism.

In this project, we reviewed the entire contents of the alphabetically-arranged subject index in *APA PsycTests* in order to generate an exhaustive list of "Exact (DE)" subject headings related to religion and spirituality that generate search results. In order to ensure the comprehensiveness of the subject headings provided within this list, we reviewed each and every term listed in the index (from A to Z). Some of the terms listed in the subject index required deliberation among the authors as to whether or not they are directly relevant to the study of religion and spirituality. For example, the authors decided to include the term "mysticism" but decided to exclude the term "asceticism" because the latter is regarded more as a lifestyle than as a form of religion or spirituality per se. Figure 3 illustrates a particularly fertile page of the index with respect to the field of

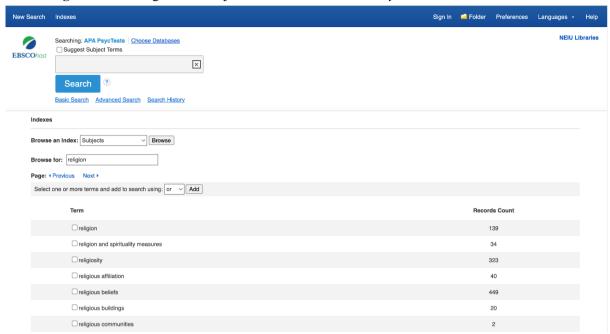


Figure 3 Browsing the DE Subject Terms Index in the APA PsycTests Database

religion and spirituality, a page beginning with "religion" and proceeding to "religion and spirituality measures," "religiosity," and so on. The index lists the number of database records corresponding to each term.

It should be noted that we did not review "Authorsupplied keywords," those terms volunteered by the researchers who produced the tests indexed in the database. A more General ("SU") subject search will generate results matching these author-supplied keywords. Because author-supplied keywords do not comprise a controlled vocabulary, however, they are greater in number and less exact when compared to "Exact (DE)" subject headings.

Results and Discussion

Table 1 offers an exhaustive list of subject headings related to religion and spirituality that generate at least one search result in the *APA PsycTests* database as of November 2022. The number of tests available corresponding to each subject heading is also provided. A search for all tests indexed under one or more of the subject headings listed in Table 1 yields 1,444 instruments, 642 of which are available in the database full-text. The search result numbers listed next to each subject heading in Table 1 amount to well over 2,600 when

added together because many individual instruments have multiple subject headings applied to them within the database.

The subject headings listed in Table 1 are divided into six broad categories that were generated by the authors: "General" (subject headings simply referring to religion, spirituality, and faith), "Beliefs and Denominations" (subject headings including religious disciplines, denominations, or belief systems), "Organizational (subject headings referring organizations and personnel), "Practical/Experiential" (subject headings referring to religious/spiritual experiences and practices), "Conceptual" (subject headings involving religious concepts), and "Therapeutic" (subject headings referring to therapeutic interventions).

Judged by the total number of search results yielded by all of the subject headings listed within the category, "General" is the largest of the six categories while "Therapeutic" is the smallest of the six categories. There are a number of interesting findings here. For one, while the concept of "Spirituality" was rarely mentioned in the empirical literature prior to the 1980s (Ribaudo & Takahashi, 2009), it is now associated with psychological instruments more than either "Religion" or "Religiosity." Second, understandably, there are twice as many instruments

Table 1Subject headings relevant to religion and spirituality in APA PsycTests (number of results generated for each subject term).

General (全般)	Beliefs and Denominations (信念・信仰・教派)	Organizational (教団など)
Spirituality (461)	Muslims (129)	Religious groups (37)
Religiosity (323)	Jews (66)	Religious buildings (20)
Religion (139)	Islam (61)	Clergy (19)
Faith (54)	Christians (51)	Religious organizations (11)
Religion and spirituality measures (34)	Christianity (49)	Religious education (8)
	Buddhism (27)	Religious personnel (8)
	Religious fundamentalism (25)	Faith based organizations (6)
	Mysticism (23)	Ministers (religion) (6)
	Catholics (22)	Priests (6)
	Confucianism (16)	Missionaries (2)
	Atheism (14)	Religious communities (2)
	Buddhists (12)	Religious literature (2)
	Roman Catholicism (12)	Rabbis (1)
	Protestants (11)	
	Hindus (8)	
	Muslim Americans (8)	
	Judaism (7)	
	Bible (6)	
	Mormons (5)	
	Agnosticism (4)	
	Hinduism (4)	
	Protestantism (4)	
	Sikhs (3)	
	Sikhism (2)	
	Cultism (1)	
Practical/Experiential	Conceptual	Therapeutic
・ (実践・経験的)	(概念)	(療法的)
Religious practices (148)	Religious beliefs (449)	Spiritual care (31)
Spiritual well being (45)	God concepts (146)	Faith healing (7)
Prayer (38)	Religious affiliation (40)	Pastoral counseling (6)
Religious experiences (34)	Religious prejudices (21)	
Religious conversion (3)	Sin (6)	
Confession (Religion) (1)	Theology (4)	
Interfaith marriage (1)		

measuring "religiosity," a psychological quality of being religious, than "religion" itself.

Judged by the number of subject headings listed within the category, the "Beliefs and Denominations" category is the largest as there are many religious denominations/traditions around the world. Further, the "Therapeutic" category is again the smallest of the six categories.

Test constructs are also indexed in *APA PsycTests*. While the database does not allow the user to refine their search results by construct, users can browse the database's construct index (which operates similarly to the subject index) for constructs related to religion and spirituality and the measurement instruments which deploy them; many constructs, such as "abandonment by God" and "religious and spiritual functioning," are not available as subject headings. Many of these constructs are used by only a single test while others are utilized by multiple tests.

Researchers seeking evaluative or secondary literature about one or more psychological assessment instruments used within the sub-field of religion and spirituality are encouraged to utilize the APA PsycInfo database in tandem with APA PsycTests. The former is a considerably larger database than the latter, containing over five million bibliographic records. APA PsycInfo chiefly indexes academic journal articles, scholarly books, and dissertations. Like APA PsycTests, APA PsycInfo offers a browsable construct index but does not allow users to refine search results by test construct. However, subject indexing is thorough in APA PsycInfo. For example, a search in APA PsycInfo for peer-reviewed articles indexed under one or more of the subject headings listed in Table 1 yields approximately 56,000 results. The same search also yields results bearing a number of religion- and spirituality-related subject headings which yield no search results in APA PsycTests, such as "shamanism." This means that while researchers can retrieve no instruments (to date) designed to study the topic of shamanism in PsycTests, researchers can nevertheless retrieve articles studying the topic of shamanism in PsycInfo. Researchers should note that APA PsycInfo offers a small number of subject headings specifically related to psychological testing and measurement, including

"psychometrics," "test construction," "test validity," and "test reliability." Researchers can pair one or more of these testing-related subject headings with one or more of the religion-related subject headings listed in Table 1 to locate the English-language scholarly literature addressing psychological testing and assessment within the sub-field of religion and spirituality specifically.

Summary

The number of empirical studies related to the psychology of religion and spirituality is on the rise. However, this trend is less marked in Japan for various reasons including a lack of readily available databases for psychological tests and measurement instruments. In this report, we first identified a number of English-language databases that empirical researchers can use to identify psychological instruments relevant to the study of religion and spirituality. In particular, we focused on APA PsycTests, one of the most readily available and manageable databases in the U.S. at present. While its structure is complex and thus difficult to maneuver, the subject headings available in the database make it relatively easy even for a novice and non-Englishspeaking scholars to produce relevant search results. As Japanese databases, particularly in the field of psychological research, are limited in their scope, function, and convenience, some of the techniques presented here for the use of APA PsycTests should encourage Japanese scholars to engage in empirical research. Finally, it must be mentioned that more collaboration between empirical researchers and librarian scientists is highly recommended to improve the existing Japanese databases so that meaningful literature searches are carried out with relative ease.

Notes

3 APA PsycTests is accessible via the American Psychological Association website (APA.org). Registration instructions for both individual and institutional licenses can be found at https://www.apa.org/pubs/databases/*PsycTests*/.

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