**RELG3R: Exercise Using SPSS to Explore Conceptualization, Measurement, and Relationships Among Variables with a Focus on Fundamentalism**

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**Note to the Instructor:** The data set used in this exercise is gss14\_subset\_for\_classes\_RELG.sav which is a subset of the 2014 General Social Survey.  Some of the variables in the GSS have been recoded to make them easier to use and some new variables have been created.  The data have been weighted according to the instructions from the National Opinion Research Center.  This exercise uses COMPUTE and IF in SPSS to create new variables, SELECT CASES to select particular cases for analysis, FREQUENCIES, and CROSSTABS to explore the relationships among variables.  In CROSSTABS, students are asked to use percentages, Chi Square, and an appropriate measure of association.  You could skip the parts of the exercise (Part 1 and II) that involve the creation of the typology, since that variable (FUND\_TYPOLOGYR) is included in the data set.  Then you could go directly to Part III which deals with relationships between variables.  A good reference on using SPSS is *SPSS for Windows Version 23.0 A Basic Tutorial* by Linda Fiddler, John Korey, Edward Nelson (Editor), and Elizabeth Nelson.  The online version of the book is at [**Social Science Research and Instructional Council's Website**](http://ssric.org/node/582).  Please send a copy of any revision to the author.  Included with this exercise (as separate files) are more detailed notes to the instructors, the SPSS syntax necessary to carry out the exercise (SPSS syntax file), and the SPSS output for the exercise (SPSS output file).  Please contact the author for additional information.

I’m attaching the following files.

* [**Data subset**](http://ssric.org/files/gss14_subset_for_classes_RELG.sav) (.sav format).
* [**Extended notes for instructors**](http://ssric.org/files/Extended_Notes_for_Instructors_for_RELG3R.docx). MS Word (.docx) format.
* [**SPSS syntax file**](http://ssric.org/files/SPSS_Syntax_for_RELG3R.sps) (.sps format).
* [**SPSS output file**](http://ssric.org/files/SPSS_Output_for_RELG3R.spv) (.spv format).
* [**This page**](http://ssric.org/files/RELG3R.docx) in MS Word (,docx) format.

**Goals of Exercise**

The goal of this exercise is to develop a typology to classify Christians as fundamentalist or non-fundamentalist.  Once we have developed the typology we’ll explore its relationship with other variables.  The exercise also gives you practice in using several SPSS commands – SELECT CASES to select particular cases for analysis, COMPUTE and IF to create the typology, FREQUENCIES, and CROSSTABS to explore the relationships between variables.

**Part I--Recoding**

We’re going to use the General Social Survey (GSS) for this exercise.  The GSS is a national probability sample of adults in the United States conducted by the National Opinion Research Center.  For this exercise we’re going to use a subset of the 2014 GSS survey. Your instructor will tell you how to access this data set which is called gss14\_subset\_for\_classes\_RELG.sav.

There are various ways to classify individuals in terms of their religious beliefs.  We can classify people according to their religious preference and the strength of their attachment to this preference.  Christians are often described as being fundamentalist or non-fundamentalist.  Tom Smith, the director of the General Social Survey, has written about the development of fundamentalism in the United States and the core beliefs associated with fundamentalism (“GSS Methodological Report No. 43,” 1987).  He views fundamentalism as a continuum from fundamentalism on one end to liberalism on the other end.  This is an excerpt from Smith’s article.

At one end we find the Fundamentalists, a movement of conservative or traditionalist Protestant denominations that grew largely out of the Holiness and Pentecostal movements (and later denominations) of the nineteenth century. The movement was formed in the early 20th century as a reaction to what was seen as the secularization and modernization of religious beliefs and practices within many mainstream and established Protestant denominations. Its keys beliefs were first articulated in a series of pamphlets called The Fundamentals (1909). In addition to their opposition to the growth of secular influence in society, the Fundamentalists are distinguished by belief in 1) the inerrancy of the Bible (or more technically in the verbal, plenary inspiration of the Bible), 2) personal salvation by accepting Christ as their savior in what is often called the born-again experience, 3) the personal, pre-millennial imminent return of Christ, 4) an evangelical or revivalist desire to reach out to save and convert others, and 5) acceptance of most  traditional Protestant beliefs such as in Trinity, the Virgin birth, and the existence of angels and devils.

In this exercise we’re going to focus on the first two of the key beliefs identified by Smith – the inerrancy of the Bible and the born-again experience.

One of the variables in the data set is R10\_BIBLE.  Respondents are asked “Which of these statements comes closest to describing your feelings about the Bible?

a)     The Bible is the actual word of God and is to be taken literally, word for word

b)     The Bible is the inspired word of God but not everything in it should be taken literally, word for word

c)      The Bible is an ancient book of fables, legends, history, and moral precepts recorded by men.”

There is also a category for respondents who volunteered other answers.  Those who say the Bible is to be taken literally and is therefore inerrant are expressing a fundamentalist position while the others are not.

Another variable is R15\_REBORN which asks respondents “Would you say you have been "born again" or have had a "born again" experience -- that is, a turning point in your life when you committed yourself to Christ?”

We can classify Christians as “literalists” (i.e., those who believe the Bible is the literal word of God) and as “born again” (i.e., those who say they have had a born again experience).  We’re going to need to recode R10\_BIBLE to get it into the form we want.

Let’s recode R10\_BIBLE into a new variable and call it R10\_BIBLE1.  (See Chapter 3, Recoding into Different Variables in the online SPSS book cited on page 1 of this exercise.)  Those who said the Bible was the literal word of God are fundamentalists and those who didn’t take this position are not.  So we need to recode 1 as 1 and recode 2, 3, and 7 as 2.  When you use RECODE in SPSS, you can recode in two different ways—into the same variable or into different variables.  If you recode into the same variable, be careful.  It’s easier, but if you make a mistake, you will not be able to go back and recode it again.  You will have to close SPSS without saving the data set and then reopen the data set to get a fresh, clean copy of the data. So for this exercise recode into different variables.  You’ll have to give your recoded variable a new name which for this variable will be R10\_BIBLE1.  Add value labels using 1 for fundamentalists and 2 for non-fundamentalists.

We don’t need to recode R15\_REBORN.  It’s already in the form we want.  The value 1 refers to those who said they have had a born-again experience and the value 2 to those who didn’t.

Let’s check to make sure we recoded R10\_BIBLE correctly.  Run a frequency distribution for R10\_BIBLE and R10\_BIBLE1 to check on this.

**Part II.  Developing our Typology**

We want to classify respondents into four categories.

1. reborn literalists – assign a value of 1 to this group (i.e., they are 1 on R15\_REBORN and 1 on R10\_BIBLE1)
2. non-reborn literalists – assign a value of 2 to this group (i.e., they are 2 on R15\_REBORN and 1 on R10\_BIBLE1)
3. reborn non-literalists – assign a value of 3 to this group (i.e., they are 1 on R15\_REBORN and 2 on R10\_BIBLE1)
4. non-reborn non-literalists – assign a value of 4 to this group (i.e., they are 2 on R15\_REBORN and 2 on R10\_BIBLE1)

These names are a little clunky.  So when we assign value labels to these four groups let’s make them clearer.

1. We’ll call those in the group 1 the “fundamentalists.”
2. Those in group 4 are the “non-fundamentalists.”
3. Those in groups 2 and 3 have one of the characteristics of fundamentalists but not both characteristics.  So let’s call those in group 2 the “fundamental literalists” and those in group 3 the “reborn fundamentalists.”

Here’s the way we will create this typology.  We’ll call this variable FUND\_TYPOLOGY since it is a typology that classifies respondents as fundamentalist or non-fundamentalist.

1. Start by using a COMPUTE statement to assign a value of 9 to everyone.
2. Then write four IF statements to assign the values of 1 to 4 to respondents in each of these four groups.  (See Chapter 3, Creating New Variables using Compute and If in the online SPSS book.)
3. Add value labels using the names we developed above.  The value 9 will be for cases with missing information so call them “missing.”
4. Define the value 9 to be your missing value.
5. Run a frequency distribution for FUND\_TYPOLOGY.

Your instructor will show you how to write these statements.

How do we know if we did this correctly?  Run a crosstabulation for R15\_REBORN and R10\_BIBLE1.   (See Chapter 5, Crosstabulation in the online SPSS book.)  You don’t need to get percents or any other statistics since we only need to know how many cases are in each group. Then compare the frequency distribution you ran for FUND\_TYPOLOGY with the counts in your crosstabulation to see if you created FUND\_TYPOLOGY correctly.

**Part III.  Analysis**

Now that we have created our typology we want to see how it is related to other variables. Let’s look in the data set for some measures of the respondent’s opinion on social issues.  You can click on Utilities in the menu bar of SPSS and then on Variables in the Utilities’ menu to see a list of the variables in the data set.  There are questions on the legalization of marijuana (M1\_GRASS), homosexual relations (S7\_HOMOSEX), suicide (SUI1\_SUICIDE1), allowing incurable patients to die (SUI5\_LETDIE1), pornography laws (PORN1\_PORNLAW), sex before marriage (S9\_PREMARSX) and others.

Fundamentalism, as Smith observed, is a concept that applies to Christians.  Therefore, before we carry out our analysis, we need to select out those respondents who are Christian.  We can use R1\_RELG to select out the Christians.  (See Chapter 3, Using Select Cases in the online SPSS book.)  To do this, click on Data on the menu bar.  Then click on Select Cases.  What you want to do is to select only those cases which are 1 (Protestant), 2 (Catholic), 10 (Orthodox Christians), or 11 (Other Christians) on the variable R1\_RELIG.  This will select out the Christians for further analysis.  Your instructor will show you how to do this.

Choose two of the variables listed above for your analysis.  Select two variables on which you think these four groups will disagree.

1. Write two hypotheses stating how you expect these four groups to differ.
2. Write a paragraph or two that indicates why you think these four groups will differ.  In other words, write an argument to support your hypotheses.
3. Use SPSS to run the crosstabulations of FUND\_TYPOLOGY and your two variables.  Think about which is the independent and dependent variable.  Remember to get the correct percentages.  Use Chi Square and an appropriate measure of the strength of the relationship.
4. Write a paragraph interpreting the tables that SPSS gave you and indicate whether the data support your hypotheses.  Use the percents, Chi Square, and an appropriate measure of association to help you interpret the table.

When you are done, remember to click on Data on the menu bar and then on Select Cases and select All Cases and click on OK.  This will remove the selection of Christians and allow you to continue any further analysis with all the cases.

**Part IV.  Conclusions**

What did you learn about fundamentalism in this exercise?  Be sure to discuss the concept of fundamentalism and how it was related to the two variables you chose in Part III.