Cross-Cultural Research: An Introduction for Students[1]

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1 What is Cross-Cultural Research? Human communities have a variety of practices, beliefs, social roles, norms, expressions, forms of organization and conflicts (economic, political, legal, religious, expressive and artistic) that exhibit various sorts of internal coherence as well as cleavages within communities. These coherences and cleavages bear many close connections to the different historical experiences, physical and social environments in which people live. They include configurations of elements and characteristic ways of interrelating that are shared with neighboring and interacting groups, and shared among dispersed groups that have common historical experiences and similarities, including common origin, common membership in historical civilizations, and languages that are mutually understood or that derive common families. Lines of cleavage, conflict, and marginality, of course, are part of cultural phenomena.

Elements and relationships that individuals or communities have in common are shared in a variety of ways. Some, such as the more intensive patterns of interaction that derive from common residence, joint experience, and discourse in a common language or system of signs, are relatively well bounded. Other patterns of sharing or similarity derive from processes of dispersal: migration, diaspora, the trajectory of lives lived through spatial movements, social mobility, careers, distinctive histories. Interactions are by no means limited to localities, but to the trajectories of inhabitants who move through and between localities.

Cultures consist of shared constructions that emerge out of social interactions of sets of individuals who inhabit overlapping social and physical spaces. Coherence may be viewed as an emergent property, but may be present or absent to varying degrees and along varying dimensions or trajectories.

Sociocultural anthropology, as would be expected from a study of shared and contrastive constructions that embody meanings attributed to human life, is not an easy discipline, nor is there complete agreement among practitioners as to how to proceed. Cross-cultural research takes a comparative approach to the complex problems of asking:

What are the patterns of coherence and sources of coherence in the practices, beliefs, social roles, norms, expressions, and forms of organization and conflict in
   a. human communities?
   b. other forms of groups?
   c. other extra-community trajectories?

How much of that coherence is due to
   a. common history, language, identity?
   b. common or recurrent modes of adaptation to recurrent human problems?
   c. recurrent consistencies in how language, discourse and expression, social roles, norms and organizations are constructed into shared cultures?

What are the patterns of decoherence and disjuncture, misunderstanding and conflict that arise
   a. given the multiplicity and overlapping of cultures?
   b. given the cleavages and disjunctures of cultures?

How can we distinguish patterns of coherence that include conflict, obstruction, resistance and dysfunction from decoherence, the superposition of distinct but independent systems that, at least for some initial time period, do not interact?
   http://www.lkb.ens.fr/recherche/qedcav/english/rydberg/nonresonant/decoherence.html

In contrast to cross-cultural research, it is sometimes asserted in interpretive approaches to anthropology that comparison is impossible in principle because an objective or privileged frame of reference for interpretation cannot be justified. In this view, the best one can do is put forward cultural interpretations that are sensitive to the meanings in play among inhabitants both of the world-as-studied-by-ethnographers and the world-as-discourse-among-ethnographers-and-those-who-'read'-ethnography, or to work to abolish such dualisms altogether, or simply to adopt a pragmatic one-must-simply-act-on-the-basis-of-good-values justified by common sense and condemnation of all the rest. Unfortunately, while standards for good and honest ethnography are espoused, there is no absolute ground for legislating agreement and banishing disagreement about judgments. A strictly postmodern approach to these questions is often viewed as having failed on these grounds, to the extent that it arrogates to itself a privileged position and consensus while denying the validity of approaches that do not match perfectly to this imagined consensus.

Murdock and White (1969), in creating the Standard Sample for Cross-Cultural Research, address three central questions that revolve around the study of culture. First, what are the foci of study? Second, what are the issues of coherence or decoherence within the foci studied? Third, how do these issues apply between foci.

First, there is the problem of what it is that one wants to study in terms of foci: in their case, Murdock and White (1969: 331) take up the issue of sampling the diversity of human communities in order to learn something about coherence or decoherence within and between communities. Comparing communities (through ethnographies) is not the only approach to cultural comparisons, but is one that focuses on clusters of people who

inhabit, as least in part, specific and stable community sites which are often the loci of ethnography. One could as well have other standard samples such as ones devoted to the study of migration, to the study of institutions and organizations, to the study of particular types of cultures, subcultures or populations. Their insistence on this point is not on communities as representatives of larger cultures, but on communities as pinpointed times and places in which ethnographic study has been sufficiently well carried out that it is possible to list, from the ethnography, what specific bundles of practices, beliefs, social roles, norms, expressions, forms of organization and conflicts (economic, political, legal, religious, expressive and artistic) are present in each of the specific times and places of the distinct ethnographic foci that constitute the sample. At this level, there is no *a priori* assumption whatsoever that the observed elements exhibit internal coherence. That is a matter open for study, both through analyses of single cases, and through the comparisons of different cases. Cross-cultural research has often been accused of assuming at the outset that cultures are well bounded discrete entities or that they are functionally coherent units when in fact these are among the questions that are open to study. The accusation that cross-cultural research sweeps variability under the rug by taking ethnographies to be "representatives" of larger cultural systems that are assumed to be uniform is also a straw-man argument. Samples used for purposes of comparison are precisely the opposite: they are samples of variables that vary *in situ* in whatever kinds of situations they occur. Both the type of community and the situations in which its inhabitants find themselves are part of the variation that is studied. Marilyn Strathern (1991:http://eclectic.ss.uci.edu/~drwhite/courses/PARTIALCONNECTIONS49.pdf: 48-51) gives a useful commentary on this problem.

Second, there are the problems and issues of coherence or decoherence within the foci studied, as in the comparative study of human communities. The functionalist approach to ethnography was vastly overgeneralized in its heyday, which lasted from the 1920s through the 1970s. Murdock and White (1969:329-330) emphasize the weakness of the functionalist arguments that were commonly used by ethnographers to argue for the cultural coherence of the communities they studied. Functional linkage of traits asserted by an ethnographer in one society, for example, are often contradicted that one trait but not the other is present in a similar neighboring society, or by the fact that the traits do not correlate across societies.

Third, there is the problem and the issues of coherence or decoherence between foci in the study of human communities due to common historical origin or experience. Murdock and White (1969:330) note that the conjectures of those anthropologists who attempt to reconstruct culture history on the basis of trait similarities are not notably superior to those of ethnographers who investigate functional relationships.

Cultural coherence or decoherence within and between human communities: human behavior, beliefs, and institutions

For the study of culture and human behavior, cross-cultural research provides evidence
    {for and against}
    {hypotheses or theories}
    {of coherence or decoherence}
    {within and between}
    {human communities or other foci}.

The five sets of terms above are paired in brackets because the research agenda may examine any and all of these types of evidence. Negative evidence may debunk a theory of hypothesis. Positive evidence, if consistent, reliable, and replicable, may support it. The importance of this type of research is not all or none, across the board for coherence of one sort or another, but in the specific linkages that are found and the exploration of linkages and explanations. Cross-cultural research is neither functional or historical or evolutionary, but may be any combination (including none) of the three; it is not necessarily dependent on surveys of ethnographic snapshots without time depth, but may be diachronic and concerned with change and cultural dynamics. It is not necessarily based on trait inventories or attributes of individual cases, but may include or focus on networks of relationships between as well as with the foci sampled for study. It may be based on a sample of cases, a random sample, or an exhaustive set of all existing, extant or available cases for study.

The specific findings of cross-cultural research have been summarized in part in a book by Levinson and Malone (1980) and published in thousands of individual books and articles. Much has been accomplished in this field of research, mostly by specialized or additive increments where each individual author has selected a distinct sample. One of the contributions of Murdock and White's (1969) standard sample, given that ninety or more studies (http://eclectic.ss.uci.edu/~drwhite/courses/sccsartl.txt) have contributed codes to the cumulative database, is that a geometric progression in research results is possible by examining relationships between topics investigated by different contributors of coded data.

Still, in spite of the great accomplishments of cross-cultural research, and the potential or geometric increments on our understanding of human communities using the standard sample as a cumulative database, cross-cultural research has lagged behind other fields because of the seeming commitments of contributors to one or another theory exclusive of the others.

The favoring of pet theories in cross-cultural research was evident in the first series of studies, from Edward Tylor (1889) to Hobhouse, Wheeler and Ginsberg (1915), where cross-cultural correlations between treats were taken to indicate evolutionary sequences. Tylor, for example, used correlations between matrilocality and matrilineality at one extreme versus patrilocality and patrilineality (with cases of bride capture in between) as evidence for evolution from matriarchy "stage" to a patriarchal "stage" with an intermediate "transition" indicated by bride capture.

In trying to disprove evolutionary theory in favor of the particularity of distinct historical sequences, Alfred Kroeber (in the 1930s and 1940s) used correlations and similarities between societies in the same region to infer common origin, and to reconstruct historical or prehistorical sequences from shared patterns in trait distributions.

Harold Driver (1956, 1966) questioned the validity of the methods of reconstruction of both the 19th century evolutionists and the mid 20th century Boasian historicists as well as the correlational inferences of the functionalists. His reward was expulsion from the field for a period by Kroeber's rejection of his criticisms, and ten years spent as a cab driver before regaining an academic career at the University of Indiana. It seems that scientific consensus, like that of postmodern sociocultural anthropology, does not brook criticism very well. Jorgensen (1980) and White (1975) are among the few that have kept to Driver's agnostic view on theory, but Naroll (1961,

1964), a historical, was the great innovator in proposing solutions to the problem of testing correlational and distributional evidence in terms of competing functional and diffusional or historical interpretations, the famous "Galton's problem" named after Sir Francis Galton's justified critique (1890) of the first cross-cultural statistical study from a comparative survey of ethnographic data, done by E. B. Tylor in 1889.

The standard sample proposed by Murdock and White (1969) follows the agnostic approach to method and theory proposed by Francis Galton and developed by Driver and Naroll. Having started his career under the influence of Ogden (1922) and Sumner (1906) as a functionalist interested in evolutionary theory, Murdock, capitulated to the agnostic approach in the face of the evidence that all cross-cultural samples necessarily suffer from Galton's problem. The discussion of "The Measurement of Historical Influences" (Murdock and White 1969:348-352) follows Naroll in proposing a methods for dealing with Galton's Problem. The first two pages of their article (the section labeled "Pinpointing") is a good statement, still valid today, of the problems of making inferences about function linkages from correlational data, and it explains why statistics are needed in the context of testing not just pet hypotheses, but competing hypotheses and theories.

Cross-cultural research is certainly not the sole arbiter of hypotheses and theories in the social sciences, or anthropology in particular. But as in the sciences, all of the social sciences have come to recognize that a triangulation of converging results, obtained by different methods and ways of looking at and analyzing data, is a useful requirement for development of valid results in any area of inquiry. One of the key advantages of cross-cultural research is that the data come from the widest possible diversity of sources: human societies distributed over the face of the globe and potentially, over different historical periods. Ideally, data from both past and present will be part of the triangulation of sources of data. Completed ethnographies necessarily rely on data from the past and need to be understood if we are to learn from ethnographies to be conducted in the present.

2. A Course in Cross-Cultural Research: What to expect

The student in a course on cross-cultural research will become familiar, within the learning curve in the class, with
   a. A glossary of terms that define some of the salient concepts in one or more topics that lend themselves to research investigation using cross-cultural data.
   b. Several ethnographies.
   c. The existing body of cross-cultural data, such as the Standard Sample (Murdock and White 1969) or the Ethnographic Atlas (Murdock 1967).
   d. Methods for cross-cultural analysis.
   e. Software that is useful to apply methodological strategies to existing data or, in some courses, data that is assembled by the students themselves from the reading of ethnographies.
   f. Posing and testing of competing hypotheses
   g. Simple statistics such as correlation coefficients (methods of association) and tests of the statistical significance of departures of observed empirical patterns from what might be expected from data that have no particular pattern such that the observed variation (e.g., the observed association) is random.

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h. Some of the existing social science and anthropological literature on topics of concern to the course or to the student.
i. Perusal and search techniques to interrogate on-line research materials (coded variables, topically indexed, codebooks) and library or on-line references (the sources of data and of previous studies on selected topics) so as to identify and select a series of variables for investigation within the timeframe of the courses, and used in developing a term project.

3 Goals and Outcome

In my course, 174AW (World Cultural Comparisons), which is also a research writing course, the outcome is progression through a series of steps whereby the students attain sufficient proficiency on the learning curve of items listed above that they can propose to investigate the relationships between as pair of topics, select and experiment with variables available for the study of those topics (multiple variables on each providing for assessment of reliability), proceed to testing for correlations expected from the student's hypotheses (or hypotheses derived from the literature), and eventually to develop a rough draft, a classroom presentation of findings, and a final draft of the results a completed investigation.

Example of investigating a relationship. Murdock and White (1969: 348) in the first paragraph of their discussion of the problem of interpreting correlations across a sample of human communities (with cultures presumably emergent from interactions among inhabitants, interactions with other cultures, interactions with the environment, etcetera) provide the example of the correlation between the presence of agriculture in human societies and the number of levels of political authority at or above the local community (ranging, say, from 0 to 3, and measured on a scale from 1 to 4). Table 1A has labels for the political variable across the columns, and the absence (labeled 0) or presence (labeled 1) in the rows. The numbers in the cells of the table are counts of the number of cases in the sample of 186 communities in the standard sample, according to where each is placed with respect to the two variables. These are summed for each row and the numbers of also percentaged for each row. As will be seen, when agriculture is absent, there is a very high percentage (73.8%) of communities that lack political integration above the local community. When agriculture is present, 71.3% of those communities have one (29.5%), two (18.9%) or three levels (23.0%) of political integration above the local community. Note that the total number of cases is 183 (out of 186 possible), which indicates that three societies lacked sufficient data to be included in the table (i.e., missing data). The differences in these percentages as compared with those in the final row of the table (the world averages, so to speak: 43.7% of the sample has independent local communities, for example), are indicating of a correlation between the two variables.

Table 1B   Symmetric Measures

		Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Nominal by Nominal	Phi	.460			.000
	Cramer's V	.460			.000
Ordinal by Ordinal	Kendall's tau-b	.419	.052	7.430	.000
N of Valid Cases		183			

AGRICULT * V835 Political Integration Crosstabulation

Table 1A: Example of a cross-tabulation			V835 Political Integration				
			1 Independent local communities	2 Single level of political integration	3 Two levels of supra-com munity intergration	4 Three or more levels of supra-commu nity integration	Total
AGRICULT	.00	Count	45	13	1	2	61
		% within AGRICULT	73.8%	21.3%	1.6%	3.3%	100.0%
	1.00	Count	35	36	23	28	122
		% within AGRICULT	28.7%	29.5%	18.9%	23.0%	100.0%
Total		Count	80	49	24	30	183
		% within AGRICULT	43.7%	26.8%	13.1%	16.4%	100.0%

(data source: Murdock and White 1969: Appendix A).

Table 1A has labels in the columns because these were already provided in the standard sample database, but such labels are lacking for the row variable because a more complicated variable that classified the different modes of subsistence for each community, and the zero-one labels were the produce of a recoding that combined three types of agriculture (advanced, horticulture, and shifting recoded as 1) in contrast to nonagricultural modes of subsistence. Recoding is one of the operations that will be learned in using the statistical programs (Spss, the Statistical Package for the Social Sciences) used to make the table.

Table 1B gives two additional series of observations provided by Spss concerning the relationships between the variables in Table 1A: Here there are three different measures of correlations between the variables, and corresponding levels of statistical significance. The difference among the types of correlation are among the items to be learned. Correlation coefficients are most useful in reporting series of ratios among the entries in the same column that are monotonically increasing or decreasing in comparing pairs of percentaged rows in cross-tabulations. Here, as in Table 1A, the ratios of percentages for the first three successive columns are 73.8%/28.7%= 2.55, 21.3%/29.5%= .72, and 1.6/18.9= .084, which is a rapid monotonic decrease, one which levels off in column four. The presence of agricultural then, is correlated with increased political integration above the local community, and biased towards two or more levels. The correlation coefficients, varying between –1 and +1, are shown in Table 1B.

As shown by the pattern of decreasing ratios of the percentages between rows 1 and 2 of Table 1A, a positive correlation between the two variables is measured by coefficients Phi, V, and tau, as in Table 1B, that are significantly greater than 0 (no correlation) but no more than 1 (perfect correlation). Significance (the rightmost column of Table 1B) is measured by the likelihood that such a correlation would depart from a value of zero if the values on each of the two variables were randomly and independently distributed amongst the cases. Randomization does not automatically produce a correlation of zero, but will produce a normal or Bell curve of the likely outcomes, a curve whose mean is zero, with departures from zero having exponential lower probability the further they are from zero, either in the positive or negative direction. Hence, as shown on the bell curve below, an observed correlation will be at a distance from zero that has a corresponding probability (in this case very small, p ˜ .000 which means less than p = .0005 or five chances in two thousand of occurring at random). The smaller the significance value, the more

significant the correlation. Significance value of $p < .05$ is usually considered acceptable to reject the null hypothesis that the correlation is due to chance, since values this small entail only one chance in twenty that a correlation of this strength or greater would occur by chance.

Observed correlation of .46, $p < .0005 ˜ .000$

$\mu = .00$
$\sigma = .16$

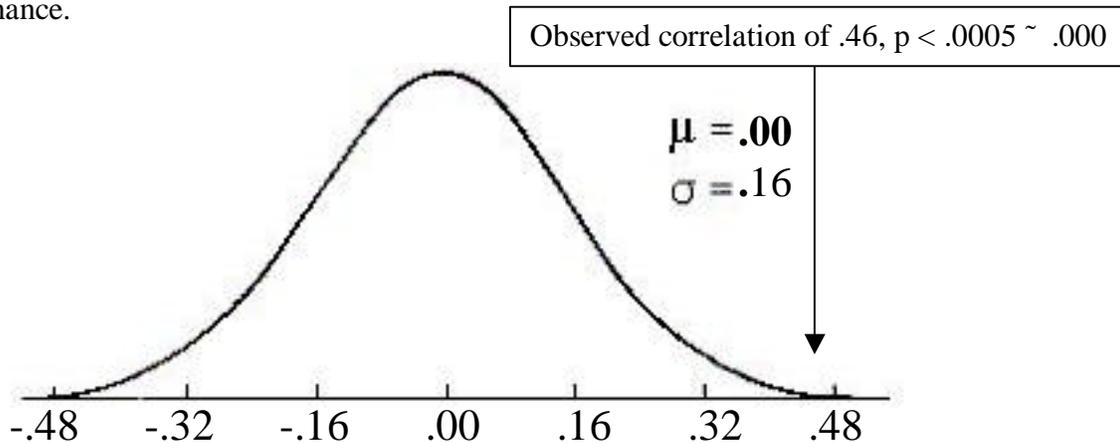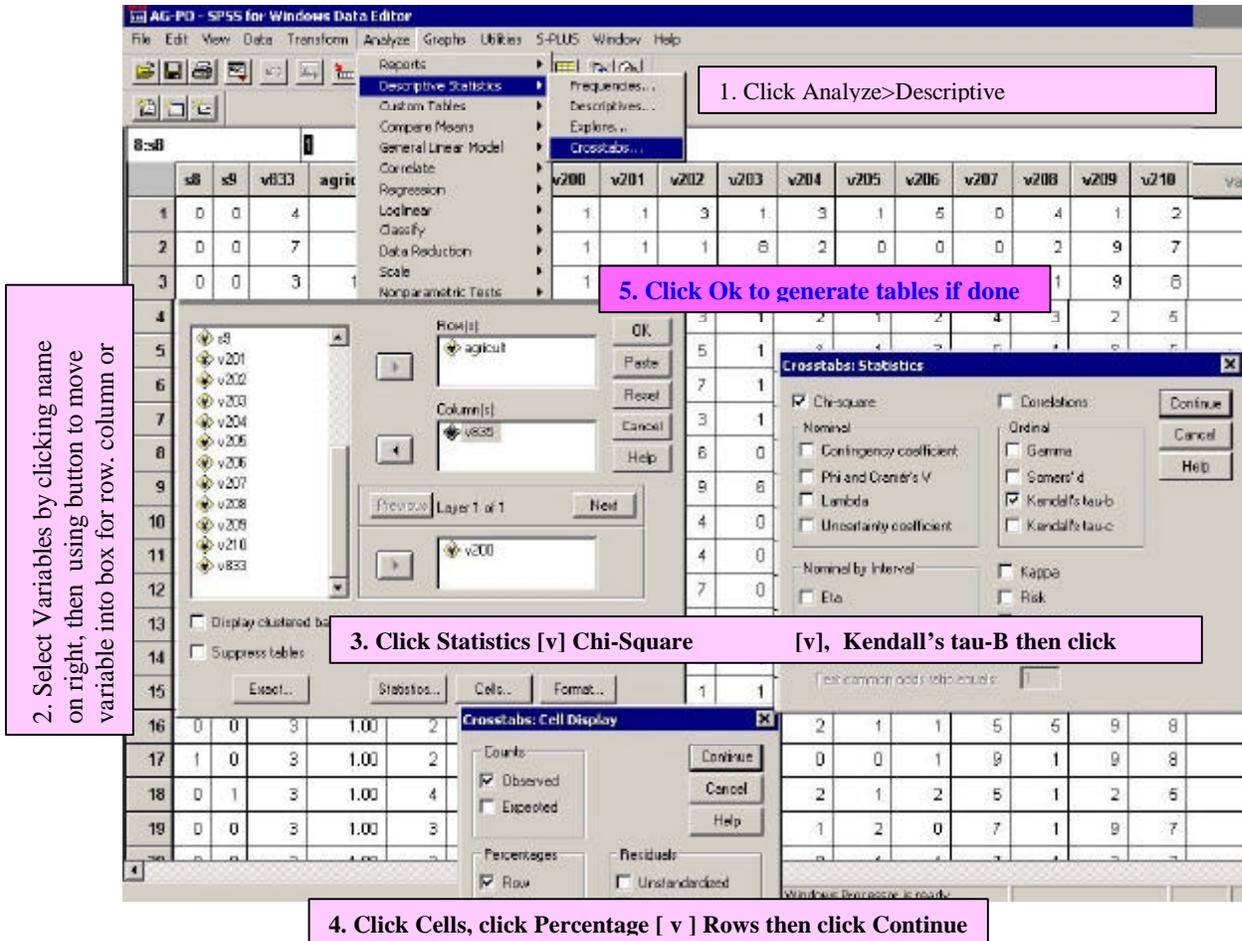-.48   -.32   -.16   .00   .16   .32   .48

Table 1C gives additional observations that are useful only if the relationship between the two variables does not follow a monotonically nondecreasing or nonincreasing pattern, as is the case with Table 1A. These statistics provided by Spss (Chi-Squared, Liklihood Ratio, Linear-by-Linear test values) also concern Table 1A and the things to pay attention to here for each measure is the associated level of statistical significance test (which is this case is again $p < .0005 ˜ .000$). If the results in Table 1B were not significant (e.g., $p < .05$) but one or more of the Asymp. Sig. Tests in Table 1C are significant, then there are one or more cells in the cross-tabulation that depart from randomness sufficiently to consider hypotheses other than monotonically nondecreasing or nonincreasing patterns in the table ('linear' association).

Table 1C   **Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	38.714ª	3	.000
Likelihood Ratio	43.608	3	.000
Linear-by-Linear Association	34.147	1	.000
N of Valid Cases	183		

4 Tools. As in the example of Table 1, Spss, the Statistical Package for the Social Sciences, is one of the primary tools available for analysis of statistical patterns in cross-cultural data.

    Spss. To generate cross-tabulations of the types seen in Tables 1ABC the program is accessed at the computer lab as follows (instructions are also on-line at http://eclectic.ss.uci.edu/~drwhite/courses/stats.htm and on-line computations at http://eclectic.ss.uci.edu/~drwhite/courses/secret.html):

AG-PD - SPSS for Windows Data Editor

File Edit View Data Transform Analyze Graphs Utilities S-PLUS Window Help

Reports
Descriptive Statistics — Frequencies...
Custom Tables — Descriptives...
Compare Means — Explore...
General Linear Model — Crosstabs...
Correlate
Regression
Loglinear
Classify
Data Reduction
Scale
Nonparametric Tests

1. Click Analyze>Descriptive

5. Click Ok to generate tables if done

2. Select Variables by clicking name on right, then using button to move variable into box for row, column or

Row(s): agricul
Column(s): v833
Previous Layer 1 of 1 Next
v200

OK
Paste
Reset
Cancel
Help

Display clustered ba
Suppress tables
Exact...   Statistics...   Cells...   Format...

Crosstabs: Statistics

Chi-square   Correlations   Continue
Nominal   Ordinal   Cancel
Contingency coefficient   Gamma   Help
Phi and Cramer's V   Somers' d
Lambda   Kendall's tau-b
Uncertainty coefficient   Kendall's tau-c
Nominal by Interval   Kappa
Eta   Risk
Test common odds ratio equals: 1

3. Click Statistics [v] Chi-Square   [v], Kendall's tau-B then click

Crosstabs: Cell Display

Counts
Observed
Expected

Percentages   Residuals
Row   Unstandardized

Continue
Cancel
Help

4. Click Cells, click Percentage [v] Rows then click Continue

Standard Sample Spss Database. This database has been in development for use in a computer lab, on CDs, and on-line. This is the first year, thanks to Khaltourina, Korotayev and Divale (2002), that the database has been sufficiently well checked for data quality, with corrected files replacing those originally published in the *World Cultures* electronic journal, that this teaching system merits widespread distribution and on-line documentation. William Divale, publisher of *World Cultures*. When you first open Spss, click File, then Open, and once you go to the correct subdirectory for the SCCS database you will see:

Link to *World Cultures* e-journal for database publications
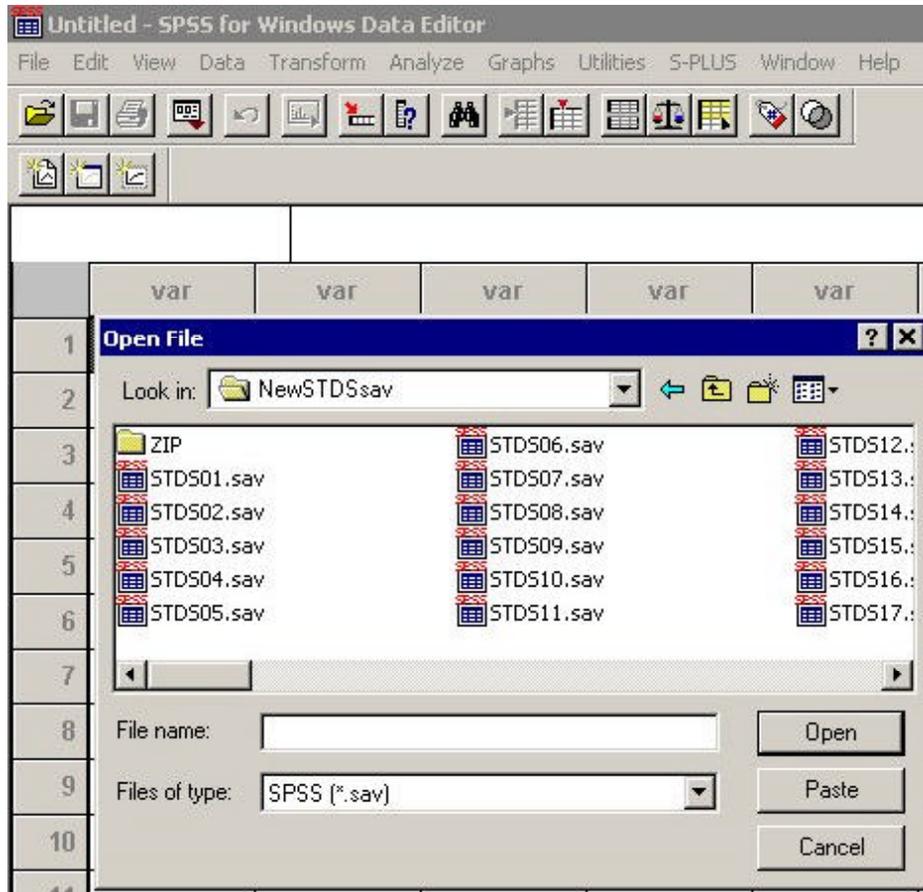
Next you find and click the file you want from the list of files and their respective topics and authors at http://eclectic.ss.uci.edu/~drwhite/courses/stdsstud.html
To merge files, click Data, Merge Files, Add Variables, and then the window above will open for a second time and you may select a second (third, etc.) file to merge with the existing data. For instructions for opening and merging files, for locating codebooks see http://eclectic.ss.uci.edu/~drwhite/courses/spsshelp.html.

MapTab and Maps. The Ethno-Atlas maps of world distributions, made by the MapTab program that comes with the *World Cultures* journal, are available from the course web page. Maps may be copied to disk and inserted into research paper to show geographic and historical patterns. Maps of distributions often illustrate Galton's problem, which is that when clusters of similar cases are present, sample size must be regarded as diminished in estimating the statistical significance of a correlation. The Standard Sample facilitates adjustments that will lower statistical significance by ordering societies by an alignment of the sample that facilitates measurement of cultural clustering. On the maps showing the numbers of the societies in the Spss spreadsheet, when you draw lines from society 1 (starting in South Africa) to 2 and so on through each successive number (ending in Tierra del Fuego at the tip of South America, neighbors in this series are selected so that each pair in the series is as similar as is possible in a linear alignment (Murdock and White 1969). This allows any variable to be correlated with its neighbor's

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score in the same variable as a measure of the extent to which sampling variance is not random, but regionally clustered. The higher this coefficient, the more the statistical significance of correlations with this variable need to be deflated.

Statistics for Galton's Problem. URLs are provided on the course web page for further information and on-line computations of correlations and significance tests. To measure of how similar neighbors are, save your worksheet file, cut row one from the Spss spreadsheet, click the column to be measured, edit/copy, but do not save the file again. Then open any other data file, reopen your worksheet file, insert a blank column (Data/Insert Variable), edit/paste (the saved column with row one deleted) into the blank column, and then correlate the one-off column with its original to measure similarity between neighbors (the one-off displacement allows each case to be compared with its closest neighbor on the linear alignment of the Standard Sample). Dow (1993) shows that for the average cross-tabulation using the Standard Sample, the effective sample size is approximately half that of the actual sample size, and an appropriate adjustment will need to be made in the test of significance. See White (2002).

5 Topics and Terms.
    a. List of Topics: on-line from the web page at
        http://eclectic.ss.uci.edu/~drwhite/courses/stdsvars.html.
    b. List of Files for Variables on Topics: on-line from the web page at
        http://eclectic.ss.uci.edu/~drwhite/courses/stdsstud.html.
    c. List of References for Files with Variables on Topics: on-line from the web page at http://eclectic.ss.uci.edu/~drwhite/courses/sccsartl.txt.
    d. Glossaries: on-line from the web page.
    e. For each data file on a topic, a bibliography is provided that gives the article or book in which the author discusses the codes they developed for that topic.
    f. Several review articles provide bibliography on topics coded and studied in cross-cultural research.

6 Resources.
    a. Complete web pages for the course (2003 edition) at
        http://eclectic.ss.uci.edu/~drwhite/courses/WCC03.html.
    b. On-line PowerPoint presentations by students in prior years
    c. On-line articles, e.g., from JSTOR:
        1) "Polygyny" by White,
        2) "Division of Labor" by Korotayev
    d. Simple instructions on how to effortlessly install a proxy server at home to view internet articles and books accessible with your UCInetID
    e. Biographies and bibliographies of major figures in C-C Research
        1) John M. Roberts, Games and Expressive Behavior
        2) George P. Murdock
    f. "How to use the Library" presentation by the Social Science Librarian (Pauline Manaka)
    g. Office Hours

h. eHRAF sources on ethnographic cases, although the index is not organized to correlated with the Standard Cross Cultural Sample.

7 Draft and Final Paper

Instructions on the web give various exercises that lead from the topics the student proposes to investigate to the draft paper to the student's final research paper. There is a draft paper on the course web pages that is especially useful because it contains the instructor's commentary.

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9 On-line Resources: Articles from *World Cultures* at http://www.worldcultures.org/

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