

violence (e.g., internal conflict versus external warfare). Ross hypothesized that cross-cutting ties and community intermarriage would predict lower internal but higher external conflict, while fraternal interest groups would predict higher internal conflict only.

The present paper reviews various weaknesses in the theory of violence presented by Ross, and explores the possibility that the external environment is one of the major causes of conflict, both external and internal. Ross's variables will be used to test hypotheses where relevant, supplemented by variables drawn from the cumulative standard sample database¹, and in particular several new but provisional variables on world-system linkages of societies in the standard sample (see the Appendix for definitions and sources of variables). Ross coded half (90 societies) of the Standard Cross-Cultural Sample (Murdock and White 1969), and the hypotheses tested here will also use his subsample. Ross's scales for external and internal conflict will be replicated using a single-factor scoring procedure (White 1990); other scales for measuring a single concept with multiple measures will be derived by the same procedure².

Weaknesses in the argument for a generalized disposition to conflict

After testing predictions of internal and external conflict from dispositional and structural variables, Ross (1985) shows that adding internal conflict as an independent variable helps to predict external conflict, and that adding external conflict as an indepen-

¹ This study depends on the cumulative data sets from different and independent coding projects that have been assembled on a common set of societies and pinpointed times and ethnographic foci in the Standard Cross-Cultural Sample (Murdock and White 1969, Barry and Schlegel 1980). The cumulative database is published in successive installments of the *World Cultures* electronic journal. These data – over 1,250 variables from 50 different coding projects – have been assembled for electronic access using the MAPTAB software package. MAPTAB was used in the present paper to select and recode relevant variables, to do cross-tabulations, and to examine regional distributions.

Exporting data from MAPTAB, other parts of the World Cultures software package are used for data analysis: the CORR-REL program (White 1990) for correlations, reliability testing, and construction of composite scales (see note 2), and the AUT-COR program (Reitz, Dow and White 1989) to test multiple regression models and re-estimate final models given the historical non-independence of cases.

² Validity and reliability are major issues in testing hypotheses from empirical measures in comparative research. Single measures of concepts provide no means of assessing reliability or possible sources of bias in measurement. [While intercoder reliability is reported in some studies, estimates of agreement among coders working on the same project is insufficient for many purposes in studying reliability and bias: 1) they typically do not apply to the entire sample, 2) researchers do not publish "duplicate" codes from different coders, but only summary or consensus codes, 3) without multiple independent codes, the independent coder contributions cannot be combined into summary scales across projects, 4) assessments of coding biases cannot be made]. An earlier paper (White 1989) on world-system impacts of war explored the issues of reliability, measurement bias, and validity in considerable detail.

Wherever possible, this study uses multiple measures of each concept, chosen from independent studies. This allows explicit assessments of reliability (White 1990) and validity (Campbell and Fiske 1959), and uses the reliability and validity results to arrive at more accurate measurement of concepts. This type of work cannot be done with the results of a single coding project, since the best assessments of reliability and validity are done from strictly independent measures of the same or similar concepts, such as by different coding projects.