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VALIDITY OF CROSS-NATIONAL RESEARCH BASED ON CONVENIENCE SAMPLES: THE CASE OF THE INTERNATIONAL DATING VIOLENCE STUDY DATA

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The objective of this paper is to examine the extent to which data from the International Dating Violence Study (IDVS) corresponds with data on the same concept from other sources. The IDVS is a multi-nation study conducted by a consortium of researchers in all major world regions. The issue is important for evaluating results of research using the IDVS data (over 20 published papers so far) and for what can be inferred more generally on the extent to which results from convenience samples can provide information that applies beyond describing the participants in a particular study. Two aspects of validity of the IDVS will be considered: concurrent validity, and construct validity.

THE INTERNATIONAL DATING VIOLENCE STUDY

Sampling Method

The data for the IDVS was obtained from convenience samples of university students at 68 universities in 32 nations. Each consortium member used the same core questionnaire, except for the final section, which was reserved for each member to add questions about issues of specific local or theoretical interest. A detailed description of the IDVS, including the questionnaire and all other key documents and previous articles reporting results from this study are available on the website <http://pubpages.unh.edu/~mas2>. Table 1 lists the nations, and shows that they are located in all major world regions.

The data were obtained by administering a questionnaire during regularly scheduled classes. Most of the classes were in psychology, sociology, criminology, and family studies.

* Papers on this and related topics can be downloaded from <http://pubpages.unh.edu/~mas2>. This paper is a publication of the Family Research Laboratory, University of New Hampshire, Durham, NH 03824. See the Laboratory web page (<http://unhinfo.unh.edu/fri>) for a program description and publications list. The work was supported by National Institute of Mental Health grant T32MH15161, and the University of New Hampshire.

The percentage of students who chose to participate and deposited a completed questionnaire ranged from 42 to 100%, with most participation rates ranging from 85 to 95%.

The data were gathered using procedures reviewed by and approved by the boards for protection of human subjects at each of the universities in the study. The purpose of the study and the right to not respond to the questionnaire, or not to answer particular questions were explained to all students. They were assured of anonymity and confidentiality, and given a debriefing form that explained the study in more detail. They also provided contact information for area social service agencies should they need assistance.

Representativeness Of The Sample

The convenience samples used for the IDVS obviously do not provide samples that are representative of the nations in which the data were gathered. University students are younger and tend to be from higher social and educational level families. Moreover, the IDVS samples are not representative even of students. In most of the 32 nations, the only students at one of many universities were studied. Moreover, within those universities, the sample consisted of classes taught by the consortium member or class where the teacher permitted the questionnaire to be administered. In addition, as explained above, in all but one nation, these were social science classes, not a sample of all types of courses. Clearly, the IDVS samples not representative of the nations, or even of students in those nations. The results reported in the papers published using IDVS data describe what was found for the students in the classes studied. The question addressed in this paper is the extent to which those results also provide information of more general interest than the specific students who completed the questionnaires.

National Context

Despite the fact that the IDVS used convenience samples and that these samples cannot be considered representative of the nations in which the study was conducted, the concept of "national context" provides a theoretical basis for the hypothesis that that the results have greater applicability than the students who happened to be in the classes where the questionnaires were completed. The concept of "national context" provided the original basis for conducting the IDVS. It is the idea that each "national context" exerts an influence on residents of that nation. Thus, the students in each of the 32 nations, even though they are not representative of their nation, were mostly born and socialized and are living their lives in 32 different national cultural and social contexts. This should result in differences behavior and beliefs of the students that parallel differences in behavior and beliefs that characterize differences between representative samples drawn from those nations. If the IDVS data do reflect the national contexts in which it was obtained, measures of constructs using IDVS data should be correlated with measures of the same or similar constructs using nationally representative data. This paper presents the results testing that hypothesis for several constructs and more are planned.

CONCURRENT VALIDITY

Concurrent validity is agreement between the measure under review and other measures of the same construct. The degree of validity is indicated by the size of the correlation between the two measures. For the IDVS, evidence of concurrent validity would be present if a construct measured by the scores of students in each nation is correlated with a measure of the same or similar construct from other sources. The other sources can be

officially recorded data on issues such as health and crime and average scores for each nation in other cross-national surveys.

Antisocial Traits and Behavior

The IDVS includes scales to measure Antisocial Personality Symptoms and Criminal History. Because the DSM-IV definition of ASP Disorder includes criminal behavior, both prior to and after age 15 (American Psychiatric Association, 1994), and because previous studies that have assessed ASTB as a mediator included arrest histories, Hines and Straus (Hines & Straus, 2007) combined both scales and labeled it Antisocial Traits and Behaviors (ASTB). We compared the ASTB score with the composite measure of violent crime in Eisner's (2002) multinational study. Twelve nations overlapped between the IDVS and the study by. The Spearman rank correlation between the two measures was .63 ($p < .05$).

Bing Drinking

The World Health Organization's (WHO) has provided statistics on adult per capita alcohol consumption for the year 1999. This data was used by Eisner (2002) as one indicator of a composite measure of problem alcohol use among juveniles in 37 nations. Hines and Straus (Hines & Straus, 2007) ranked the 19 nations in the IDVS that overlapped with the nations in Eisner's study according to their IDVS Binge Drinking score and according to the WHO adult per capita alcohol consumption statistics. The Spearman's rank correlation showed that the IDVS data were significantly correlated with the WHO data ($r = .50, p < .05$). They also ranked the 12 nations in Eisner's study that overlapped with the IDVS nations on his composite measure of problem alcohol use. The Spearman rank correlation resulted in a correlated with the Eisner data of .56 ($p = .059$).

Another test of the concurrent validity of the IDVS reported by Hines and Straus used data from the 2002 U.S. Department of Health and Human Service's National Survey on Drug Use and Health (NSDUH). This study reported data on regional differences in binge drinking (consuming five or more drinks on the same occasion at least once in the past 30 days). We used the binge drinking data for ages 18-25 because that measure, and that age group, are closest to the IDVS measure and age group. Each of the 13 IDVS sites in U.S. were classified according to the region in which they were located. The Spearman's rank correlation revealed that the mean Binge Drinking score for the 13 universities in the IDVS was significantly correlated with the DHHS's binge drinking statistics for the region in which the university was located ($r = .81, p < .01$).

Corporal Punishment

The World Corporal punishment index (Medeiros and Straus, 200??) was created using data on whether each nation permitted the following types of corporal punishment: as a penalty for crimes, as a means of control in prisons, as a means of control in schools, by alternative child care providers such as foster parents, and by parents. One point was given for each type of corporal punishment permitted, resulting in an index with scores that can range from zero to five. This data was available for 29 of the 32 nations in the IDVS. The partial correlations of this index with the four aspects of corporal punishment measured by the IDVS (controlling for score on the Limited Disclosure scale, age, length of dating relationship, and gender of the participant) are:

Agree that It is sometimes necessary to give a child a good had spanking .50**

I was spanked or hit a lot before age 12	.37*
I was hit a lot as a teenager	.33

?? replace above by exact question wording. The above correlations used WCPsumY (N=29) and the Agree + Strongly agree version of the PRP items)

The correlation of the World Corporal Punishment Index with the IDVS measure of CP social norms approving corporal punishment of .50, and with the IDVS measure of corporal punishment experienced before age 12 are very high considering how different these two measures are from the legal data used for the WCPI. The correlation with being hit a lot as a teenager is only slightly lower and significant at the 10 level. One interpretation of the higher correlation with early childhood CP is that it is occurring at a more formative age and therefore ingrains a deeper commitment to CP, which is reflected in the greater approval of CP in the legal system.

Depression

We located seven studies with cross national data on depression. But most were only two nation comparisons. A study by Van Hemert (19??) has depression data on nine nations that are also in the IDVS. The Spearman correlation with the three measures reported by Van Hemert are:

<u>Van Hemert Measure of Depression</u>	<u>Correlation with IDVS measure</u>
depr13 BDI (1961 version)	.43 p .145
depr14 BDI (1978 version)	.39 p .192
depr15 BDI (1978 short version)	.20 p .394

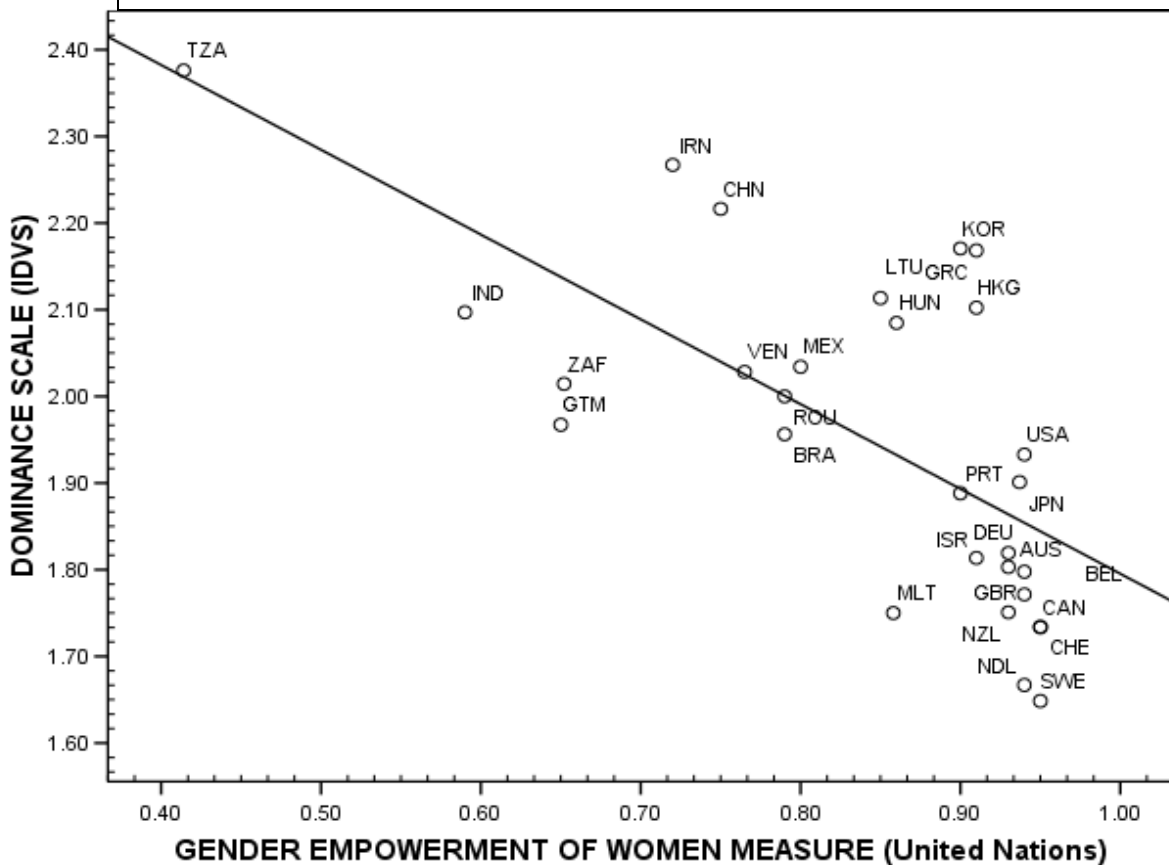
Divorce

Douglas and Medeiros (2007) investigated the degree which the percent of students in each nation in the IDVS is correlated with two independent measures of divorce in those nations. They found that the percent of students with divorced parents was correlated .67 (p <.01) with the divorce rate in each nation. They also found that the percent of students with divorced parents was correlated .59 (p <.01) with data for these nations from the World Values Study on whether divorce is ever justified.

Male Dominance

The validity of the Dominance scale of the IDVS was examined by correlating this scale with scores for the United Nations Gender Empowerment Index (as given in the Human Development Report 2005, an independent report commissioned by the United Nations Development Programme (<http://hdr.undp.org/>)). Gender Empowerment scores were available for 29 of the nations included in both the IDVS. Straus (Straus, 2007) found a partial correlation (controlling for Social Desirability scale score of -.69 (p <.01), indicating that the more Gender Empowerment, the lower the Dominance score of the men in this study. For example, Tanzania has the lowest Gender Empowerment score and also the highest Dominance score of the 29 national settings where both measures were available; and Sweden has the highest Gender Empowerment score and the lowest Dominance scale score. Thus, the Dominance scale scores for the men in this study are highly consistent with the widely used Gender Empowerment Measure. The relationship for all 29 nations is shown in Figure ??.

Figure ??. The Higher The Empowerment Of Women In A Nation, The Lower The Dominance Of Men In Dating Relationships (29 Nations)



Meta Analysis Of Concurrent Validity Correlations

To be done

CONSTRUCT VALIDITY

Construct validity is.....??

Individual-level data, not just societal-level data can be used to evaluate construct validity whereas the concurrent validity analyses presented in the previous section could only be done at the societal level, i.e. where the cases are nations and the data are the characteristics of the nations.

Test Of Violent Socialization Theory

Straus and Vanderminden (Straus & Vanderminden, 2008) examined the correlates of growing up in a family and societal context in which violence occurs and is socially approved. They used an eight item scale which included indicators such as use of corporal punishment by

parents, witnessing violence between parents, witnessing fights between non-family adults, and being advised to hit if insulted. They conducted two studies using this data. For Study 1 the results, as hypothesized, showed that the higher the score on the Violent Socialization scale, the more violence against a dating partner as an adult, the ?? the depressive symptoms, and the more distress felt about a dating relationship??.

Although these results suggest construct validity, it is possible that the correlations reflect "shared method variance" (Campbell & Fiske, 1959) because the data on both the independent and the dependent variables are from self-reports by the students in the study. The fact that these results are based on analyses which controlled for score on a scale to measure reluctance to disclose socially undesirable reduces, but does not eliminate, the possibility that the results might reflect the shared source of the data rather than a true relationship between the violent socialization and these dependent variable. That possibility however was addressed more definitively by Straus and Vanderminden's second study. This study used completely independent measure aggression, depression, and satisfaction with life in general and with family life. To do this they aggregated data from the World Values Study (a highly respected study based on representative samples) for each of the nations that were also in the International Dating Violence Study. They found strong relationships between extent of violent socialization in each national setting as reported by students in the International Dating Violence Study and the extent of aggression, depression, and low life satisfaction as measured by the World Values Study.

Tests Of Theories Using IDVS Data

This section is still to be written. It will summarize information on construct validity as shown by the results in more than 20 papers in peer reviewed journals. These articles provide many examples of results that are consistent with previous research and/or theory, and therefore provide evidence of construct validity. More generally, they suggest that the IDVS has provided important information about theories and, therefore, results which transcend information about the particular students who participated in the study. This is analogous to the results of qualitative studies, which are almost never based on studies of representative samples, yet provide information of enormous theoretical value.

THE INTERNATIONAL PARENTING STUDY

The International Parenting Study is now at an early stage and cross-national analyses are not yet possible. However, analysis of the data on 484 students at the University of New Hampshire (the first sample for the study) has found results suggesting validity: For example, the students completed the short form version of the revised Conflict Tactics Scales (Straus & Douglas, 2004) about violence between their parents. The resulting prevalence rates for violence by the fathers and by the mothers of these students are very similar to the rates found by US national surveys such as the National Comorbidity Study (Kessler, Molnar, Feurer, & Appelbaum, 2001) and the National Family Violence Surveys (Straus & Gelles, 1990; Straus, Gelles, & Steinmetz, 1980 (2006)).

CONCLUSIONS

whether IDVS data is useful for providing data to test or develop theories

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