Reliability and Validity Issues in the ICOW Project

Paul R. Hensel

Department of Political Science Florida State University Tallahassee, FL 32306-2230 (850) 644-7318 phensel@garnet.acns.fsu.edu http://garnet.acns.fsu.edu/~phensel

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Abstract: This paper evaluates the reliability and validity of the territorial claims data collected by the Issue Correlates of War (ICOW) research project. I begin by examining the central theoretical concepts involved in the ICOW project, the ways that these concepts are operationalized, and the specific procedures that are used in data collection. I then examine the validity of the ICOW data through comparison with other relevant data sets on territorial claims, exchanges of territory, and militarized disputes, crises, and wars. Finally, I consider issues of source coverage and reliability. In short, the ICOW data set appears to include even more cases than other related data sets, although the specific data set used does not appear to change the results of several empirical analyses that are run. I conclude by discussing the implications of this paper's results for users of the ICOW data, as well as for users of other data sets on territorial claims and territorial issues in the modern interstate system.

Measurement in the social sciences refers to the process of linking abstract concepts to empirical indicators (Carmines and Zeller 1979; Singleton, et al. 1993). The measurement process begins with some underlying concept of theoretical interest that is unobservable in the empirical world, meaning that it can not be measured directly. Social scientists attempt to develop empirical indicators that allow such unobservable concepts to be measured in the referent world. Because the indicators that are actually measured are only approximations of the (unobservable) underlying concepts, though, no measurement is ever perfect; there will always be some degree of slippage between concept and indicator. Validity and reliability assessment are essential in determining the extent of this slippage, and thus the extent to which the empirical indicators that are measured meaningfully represent the underlying concepts. As Singer (1990: 18) suggests in discussing reliability and validity issues, "every data set must be examined closely, along with the coding rules by which it was generated, prior to its use in systematic analysis." Or as McClelland (1983: 175) warns, "let the user beware."

Admonitions such as those of Singer and McClelland are particularly appropriate for newly collected data sets, which have not existed for long periods of scholarly use and which have not been subjected to extensive reliability and validity tests. One area that is only beginning to receive systematic data collection involves the study of territorial claims between nation-states. One effort to do so is the Issue Correlates of War (ICOW) research project at Florida State University, which began collecting territorial claims data during the summer of 1997 (Hensel 1998; Hensel and Tures 1997); similar efforts include Huth (1996) and Kocs (1995). The purpose of this paper is to assess the reliability and validity of the ICOW data on territorial claims (and, implicitly, of the Huth and Kocs data as well).

This paper begins with a discussion of the general goals of the ICOW project, the underlying theoretical concepts that the project studies, and the procedures by which these theoretical concepts are operationalized as empirical indicators. I then discuss central issues in

validity and reliability assessment, with a focus on the validity and reliability of the ICOW project and related data collections. I conclude by discussing the implications of this assessment for the usage of the ICOW data and similar data collections, and for the study of contentious issues in international relations more generally.

The ICOW Project

The Issue Correlates of War (ICOW) project is meant to allow the systematic study of contentious issues in world politics. Scholars such as Mansbach and Vasquez (1981) and Diehl (1992) argue for a focus on the types of issues that are disputed between states, and issues form the starting point of a common model of interstate conflict (e.g., Bremer 1993). Yet very little data has been collected to allow the systematic study of the effects of issues.

The ICOW project has begun with territorial issues, which are typically singled out as the most conflict-prone of issues (Vasquez 1993; Hensel 1996, 1997). The ICOW territorial claims data identifies the states involved in territorial claims, the characteristics of the particular territory involved in the claim, and diplomatic or legal attempts to resolve the claims peacefully. Once the territorial claims data set has been completed, ICOW will move on to additional issue types, in order to allow systematic comparison of the effects of different types of issues. Issues that are likely to be addressed in future ICOW data collection include maritime claims, ethnic/nationalist issues, resource issues, and economic issues.¹

Theoretical Concepts and Operationalization

The central theoretical concept in the ICOW project is the notion of issue disagreement between two or more actors. The goal of the project is to identify nation-state actors that disagree with each other over pre-determined types of issues -- beginning with territorial issues -- and to identify characteristics of the specific issues being disputed between these actors. It is important to note that this focus is simply on the existence of disagreement between the states. The specific actions taken in pursuit of these disagreements (such as military threats or actions, economic sanctions, or diplomatic protests) are not important for this particular data collection effort, and can be identified by using other data sets that focus primarily on militarized conflict, economic sanctions, or similar types of action.

The ICOW territorial claims data set -- the subject of the present paper -- focuses on a specific type of issue disagreement, involving disagreement over territory. Claims to territory are defined as involving explicit contention between two or more states over the ownership of a piece

¹ John Tures has also begun collecting a data set on political regime issues, meant to produce systematic data on situations where one nation-state refuses to recognize another state's leadership (and may attempt to undermine or overthrow the regime of the target state).

of territory. Such claims require that official representatives of the government of at least one sovereign state must lay claim to territory being occupied, administered, or claimed by at least one other state (Hensel 1998).² When official government representatives explicitly state their claim to a piece of territory in this fashion, whether through official statements, documents, legal protests, or some other fashion, it appears reasonable to conclude that an issue disagreement exists between their state and the state that is targeted by their claim.

Once a claim is identified, we must identify characteristics of the claim to help distinguish between claims of higher and lower salience. The ICOW project does this by collecting data on numerous characteristics that have been suggested as indicators of the salience of a particular territorial claim (see, e.g., Goertz and Diehl 1992).³ Several characteristics cover the type and extent of territory that is claimed, distinguishing claims to homeland territory from claims to colonies or possessions, claims to mainland territory from claims to islands, and claims to the entire area of the target state from claims to a limited portion of the target state's territory or claims involving the precise location of the border line. Homeland claims, mainland claims, and claims to total sovereignty over the target state are assumed to be more salient than claims to colonies or possessions, claims to offshore islands, and claims to smaller portions of the target state. Several characteristics involve the contents of the claimed territory, including its area and the population that it contains; a territory that covers a larger area or that includes a greater population is assumed to be more salient than a smaller territory that contains little or not permanent population. Additionally, we collect data on contents of the claimed territory that are explicitly mentioned as bases for the claim, as indicated by official statements by government representatives. Three specific bases that are considered are resources, ethnic groups, and religious groups in the claimed territory; a claim involving any (or all) of these characteristics is assumed to be more salient than a claim not involving the characteristic in question. Although none of these specific indicators is seen as a perfect measure of claim salience, taken together they appear to offer a reasonable measure of the salience of different claims; few claims that are seen by policymakers as highly salient are likely to rate as low salience on all of these indicators.

Data Collection Procedures

The first step in collecting the ICOW territorial claims data was the development of the data codebook, which lists and describes the variables to be collected. Once the codebook was completed, data collection began, starting with a region of the world with which the project director

² As with previous attempts to collect data on territorial claims, Antarctic claims and maritime claims are excluded from the present stage of ICOW data collection -- although such claims may be examined in future stages of the ICOW project.

³ The ICOW territorial claims data set codebook, which explains each variable and lists the values that each can take, is available on-line at the ICOW web site: http://garnet.acns.fsu.edu/~phensel/icow.html>.

is very familiar (Latin America). Data collection begins with general geographic and historical reference sources at the regional or global level (e.g., Anderson 1993; Downing 1980; Ireland 1938), which are used to identify a preliminary list of cases. Further details on each case are then sought using military and diplomatic histories of the involved countries (e.g., Braveboy-Wagner 1984; Dennis 1931), news reports from sources such as the New York Times, and additional periodicals and scholarly journals. Most claims in the data set are researched using multiple sources, ranging from two or three sources for many cases to dozens of sources for several prominent cases that led to war or endured for many decades.

Each territorial claim collected by the coders is checked carefully by the project director, in order to ensure that the coders applied the coding rules correctly and collected all of the needed information. In the few cases where problems arise, the project director consults with the relevant research assistant to clarify the details of the case. Where needed, the official codebook is then amended to provide greater detail to assist future coders facing similar situations.

Current Status

Collection of ICOW data on territorial claims is currently underway. All data collection has been completed for the Western Hemisphere, including every territorial claim between Canada and the southern tip of Argentina and Chile. A list of Western Hemisphere territorial claims is presented in Table 1, including the claim name, the participants, and the years during which the claim was ongoing.

[Table 1 about here]

Preliminary data collection on Europe has been completed, although much additional cross-checking remains to be done before the European data can be considered finalized. Data collection on claims in the Middle East and in Africa will begin in late March of 1998, followed by claims in Asia, and Oceania. Current plans call for preliminary data collection throughout the world to be completed over the summer of 1998, with the final, cleaned version of the data set to be released publicly during the fall.

Convergent Validity: Comparing Territoriality Data

Validity refers to the extent to which a given indicator measures the unobservable underlying concept that it is meant to represent. Determining the validity of a given measure can be described as a theoretically oriented problem, because validity assessment involves the assessment of the extent to which the indicator is useful for a particular purpose, rather than the extent to which it is universally "true" or reliable. Thus, validity is only meaningful in the context of a particular set of underlying concepts; a given indicator may be highly valid as a measure of one concept but may have little or not validity as a measure of another (Carmines and Zeller 1979: 15-17).

Assessing the validity of the ICOW territorial claims data, then, requires a focus on the extent to which this data set meaningfully represents the particular underlying concepts of issue disagreement and territorial issues that it is meant to capture.⁴

One very important type of validity, convergent validity (Campbell and Fiske 1959), is based on the notion that good measures of the same concept should have a high intercorrelation with each other. An important check on the validity of the ICOW data -- as well as the validity of other data sets covering similar topics -- involves comparing it with other existing territoriality data sets. High correlations among these data sets -- collected by different scholars, using different sources and different coding procedures -- should increase our confidence in the validity of each. Conversely, low correlations should decrease our confidence, perhaps leading to a situation where the results of a given empirical analysis depend on which data set was used to indicate the presence of a territorial dispute; Howell (1983), Vincent (1983), and McClelland (1983) debate such a contention regarding the WEIS and COPDAB events data sets.

ICOW and Territorial Claims Data Sets

The most directly relevant comparisons across data sets involve comparisons of data sets that attempt to measure territorial claims. Three existing data sets address the issue of territorial claims separately from the existence of militarized conflict: Huth's (1996) list of territorial disputes, Kocs' (1995) list of territorial disputes, and Mandel's (1980) list of territorial disputes. Like the ICOW data, these three data sets include both peacetime claims and claims that lead to militarized conflict, rendering them directly comparable (unlike data sets that focus only on the presence of territorial issues in militarized disputes, crises, and wars). Each list of territorial claims occurring in the Western Hemisphere (the current domain of the ICOW project) is presented in Appendix 1.

Huth (1996: 19ff) defines a territorial dispute as involving "either a disagreement between states over where their common homeland or colonial borders should be fixed, or, more fundamentally, the dispute entails one country contesting the right of another country even to exercise sovereignty over some or all of its homeland or colonial territory." In collecting data on such disputes, he searches for "evidence of divergent positions being expressed by governments in bilateral diplomatic communications, or in international forums such as the United Nations General Assembly or regional organizations like the Organization for African Unity (OAU) and the Arab League." He excludes cases that do not involve at least one sovereign state on each side of the dispute, "latent" claims that are not expressed publicly or officially (even if the border in question

spatial-temporal domain. The focus of the present paper is on the validity and reliability of the ICOW measures themselves, rather than on any empirical relationship involving these and other variables.

⁴ It should be noted that the present paper is not concerned with what Cook and Campbell (1979) term "internal validity," "external validity," or "statistical conclusion validity." These forms of validity refer to the causal direction of an observed correlational relationship, and the generalizability of an observed relationship beyond the original

has never been demarcated), and offshore disputes over maritime zones or continental shelves. Each element of Huth's definition is consistent with the ICOW definition and operationalization of territorial claims.

Kocs (1995: 159ff) focuses on "conflicting legal claims to territory," which exist "when two or more states formally claim legitimate jurisdiction over the same piece of territory." He excludes unofficial disputes pursued by local populations but not by official governments, technical disputes involving poorly defined boundaries that are otherwise agreed upon by all participants, vague claims that do not involve a specific piece of territory, "manufactured" disputes that are raised sometime after being resolved through valid agreements or treaties, and noncontiguous disputes (i.e., he only includes claims to territory that "directly adjoins the home territory of both states along an inland boundary"). Two components of this definition stand out from the Huth and ICOW definitions: the exclusion of manufactured disputes and noncontiguous disputes.

Finally, Mandel's (1980: 431) definition of border disputes includes "violent or nonviolent conflict between two primary national antagonists over the demarcation of their shared boundary." Like Kocs, Mandel excludes noncontiguous adversaries, arguing that disputes over shared land borders are different than more indirect territorial disagreements. He also excludes cases that do not feature nation-states on both sides of the dispute, at least by its conclusion, cases that do not involve contention over border demarcation, and cases that involve ocean jurisdiction or offshore islands rather than land boundaries. Mandel identifies sixty-six cases matching his definition of border disputes in Butterworth's overall list of 310 cases of interstate conflicts

[Table 2 about here]

Table 2 presents a comparison of coverage between ICOW and the Huth, Kocs, and Mandel lists of territorial claims in the Western Hemisphere.⁵ Each list of territorial claims is compared with the ICOW data in two respects: the proportion of cases from the Huth, Kocs, or Mandel list that are included in the ICOW list, and the proportion of cases from the ICOW list that are included in the other lists. It should be noted that a "case" in this analysis is a claim-dyad, or a pair of countries involved in one or more territorial claims during the period of observation. Thus, a claim involving Guatemala against both the United Kingdom and Belize would be considered to represent two dyads for the purposes of comparison.

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back to 1919.

⁵ This comparison is restricted to the Western Hemisphere, which is the first region to be completed in the ICOW data. Additionally, each comparison of data sets reported in Table 2 is limited to claims that were ongoing during the period covered by the data set with more limited spatial coverage. For example, the overlap between ICOW and Huth is only assessed for Western Hemisphere cases that were active between 1950-1990 (the current coverage of the Huth data), although the ICOW data extends back to 1816. The comparison will be updated to include additional geographic regions as they are added to the ICOW data, and a longer time period once Huth's data has been extended

One observation that stands out from these comparisons is that the ICOW data set includes almost every territorial claim identified by any of the other data sets: all eight Kocs claims, all six Mandel claims, and all but one claim identified by Huth.⁶ Although the ICOW data set includes almost all cases in the other lists, the other lists include a much smaller fraction of all ICOW cases. Huth's data set includes all but five cases from the ICOW data, while Kocs' list includes only eight of twenty-seven cases and Mandel includes only six. It should be noted that Kocs' overlap is limited by his exclusion of noncontiguous disputes; as Table 2 indicates, fifteen of the twenty-seven cases that were active in the 1945-1987 period involved noncontiguous cases, with the result that Kocs only misses four of the twelve contiguous cases in the ICOW data within his temporal domain.⁷

It should be noted that this high overlap -- and the slightly larger set of cases collected by the ICOW project -- can not be attributed to ICOW coders beginning data collection with these other lists of cases. ICOW project research assistants have been instructed not to use existing social science data sets to identify cases, in order to prevent artificially inflating the correspondence between our data set and related alternatives. Now that the overlap between these data sets has been established independently for the Western Hemisphere, though, future research assistants will be encouraged to examine alternative lists to help identify candidate cases -- although supporting sources must be consulted to establish that the case qualifies under ICOW coding rules.

ICOW and Attempted Settlement Data Sets

Another important collection of data sets with relevance to ICOW involves data on attempted settlements of territorial claims through negotiations or third-party assistance. A number of recent empirical studies employ data on attempted settlements, which -- although not focused explicitly on settlements of territorial claims -- should offer a useful cross-check of the settlement attempts identified by the ICOW project. Bercovitch and Diehl (1997) employ Bercovitch's "International Conflict Management" data set, which includes conflict management attempts occurring in rivalries with ten or more fatalities over the 1946-1992 period. Raymond (1994) employs a data set including 206 dyadic disputes between 1820-1965 that were referred to third-party arbitration or mediation. Dixon (1996) also employs the SHERFACS data, which disaggregates international disputes into distinct phases, and which includes both conflict

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⁶ The one Huth case that is not included in ICOW involves a claim between the United States and Nicaragua. According to Huth (1996: 203), this dispute involves a Nicaraguan claim to sovereignty over Corn Island, which was leased to the United States in 1916, and which was returned to Nicaragua when the United States terminated the lease agreement in 1971. More research is needed before this case can be added to the ICOW list.

⁷ The cases that Huth is missing include a dispute between Haiti and the United States over Navassa Island, between El Salvador and Nicaragua over the Gulf of Fonseca (both sides also have a dispute with Honduras over the Gulf that appears in Huth's data), between Honduras-Belize and Honduras-Guatemala over Sapodilla Cay, and between Colombia and Venezuela. The contiguous cases that Kocs is missing include a dispute between the United States and Mexico over El Chamizal and nearby areas, Colombia and Venezuela, Brazil and Uruguay, and Chile and Bolivia.

management efforts and territorial issue codings for each phase. Unfortunately for the present paper, I do not currently have access to such data sets, but they are listed here as examples of data that should be compared with the ICOW data in the future.

ICOW and Territorial Conflict Data Sets

Numerous data sets on militarized conflict include codings of the issues involved in specific episodes of conflict, often including territorial issues. Such data sets are not as directly relevant for assessing the validity of the ICOW data as data sets on territorial claims, because many of the cases of conflict that they include do not include territorial issues. To the extent that they include militarized disputes, crises, or wars involving territorial issues, though, conflict data sets do identify a set of cases that we should expect to be covered in territorial claims data.

Three conflict data sets appear to be particularly relevant to the ICOW data on territorial claims: the COW Militarized Interstate Dispute (MID) data set (Jones, Bremer, and Singer 1996), the ICB crisis data (Brecher and Wilkenfeld 1997), and Holsti's (1991) list of interstate wars. Each of these data sets includes a variable indicating the issue(s) under contention in each confrontation. Additionally, the COW Territorial Change data set (Goertz and Diehl 1992) offers a useful reference point for evaluating data on territorial claims; presumably, most instances where territory is exchanged between two actors reflect the existence of some type of territorial claim between the actors in question.

Each of these four data sets requires some adjustment before it can be used for the present purposes. The MID data is presented in dispute-level and actor-level form, rather than dyadic, and thus must be converted to dyadic form in order to be compared with the (dyadic) territorial claim data; the procedure for doing this is described by Hensel (1996). Similarly, the ICB data is presented in crisis-level and actor-level form, although Brecher and Wilkenfeld (1997) provide descriptions of each case that can be used to identify dyadic adversaries involved in each crisis. The ICB data also includes one-actor crises, in which only one nation-state is considered to be a crisis participant; these cases must be removed before the data set can be compared to a dyadic territorial claims data set. Finally, the territorial change data includes many cases that do not involve exchanges of territory between sovereign nation-state actors; all cases not involving two states are removed from the data set for the present analyses, along with all cases involving the independence of one state from another (which by definition can not have occurred in the context of an ongoing territorial claim between two nation-states).

[Table 3 about here]

⁸ The SAS code used to create a dyadic version of the MID data set is available from the author. The SAS code to modify the ICB data set (by converting all actor codes to COW-compatible country codes and by filling in missing data on territorial issues, based on the case descriptions provided by Brecher and Wilkenfeld) is also available from the author, as is a list of the dyads involved in each ICB crisis and each Holsti war.

Table 3 presents a comparison between the three major territorial claims data sets (ICOW, Huth, and Kocs) and the four major territorial conflict data sets described above. For the purposes of Table 3, the entire temporal domain of each data set is included, although the spatial domain continues to be restricted to the Western Hemisphere for purposes of fair comparison between the different data sets. Thus, the ICOW data set is compared to territorial conflict data covering the Western Hemisphere between 1816-1996, Huth's data set is compared to Western Hemisphere territorial conflict data from 1950-1990, and Kocs' data set is compared to Western Hemisphere territorial conflict data from 1945-1987.

The ICOW and Huth data both capture the vast majority of all cases of territorial conflict in the Western Hemisphere, regardless of which specific conflict data set is considered. The two data sets include 92.2 percent and 88.2 percent of all Western Hemisphere territorial MIDs in their respective time periods, all Holsti wars over territorial issues, and almost all ICB crises over territorial issues. Both data sets capture most Western Hemisphere territorial changes, as well, with ICOW including 84.3 percent of all changes between sovereign states since 1816 and Huth including two-thirds of all changes in the 1950-90 period. Kocs' data set performs somewhat less well, largely because of the cases that Kocs chooses to exclude; noncontiguous cases like the Argentina-British claim over the Falkland/Malvinas Islands or British-Guatemalan and British-Venezuelan claims over Belize and Guyana before their independence are left out of Kocs' list.

Overall, the ICOW and Huth data sets both perform very well in this comparison with data sets purporting to list territorial conflict. This further increases our confidence in the validity of both data sets, because these different data sets on territorial claims and on territorial conflict were all collected by different authors using different coding rules and (mostly) different data sources. Additionally, none of the territorial claims data sets were collected through reference to any of these territorial conflict data sets, meaning that all of these data sets were collected independently. Considering these differences, we should be pleased that well over eighty percent of all the cases identified independently by the MID, ICB, Holsti, or territorial change data appear in the ICOW and Huth territorial claims data.¹⁰

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⁹ The one ICB crisis that Huth misses is the "Contras I" crisis between Nicaragua and Honduras, which Brecher and Wilkenfeld (1997) describe as a territorial crisis for Honduras.

¹⁰ It is not necessarily clear that any correspondence problems between territorial claims and territorial conflict data set are the fault of the territorial claims data. As Carmines and Zeller (1979) point out several times in discussing validity issues, correspondence problems may reflect problems with the validity of the measure being assessed, but they may also reflect methodological problems or problems with the variables to which this measure is being compared. It may prove to be worthwhile to examine each of these cases identified by the MID, ICB, Holsti, and territorial change data, in order to determine whether or not territorial issues were actually involved in the case and whether or not the case occurred during an ongoing territorial claim.

Construct Validity: Territorial Claims and Conflict Escalation

Construct validity refers to the extent to which a measure performs in accordance with theoretical expectations. As Carmines and Zeller (1979: 23) describe it, construct validity is fundamentally "concerned with the extent to which a particular measure relates to other measures consistent with theoretically derived hypotheses concerning the concepts (or constructs) that are being measured." In practice, construct validation begins by specifying a theoretical relationship between two or more concepts, followed by empirical examination of this relationship and interpretation of the results. The impact of a successful case of construct validation depends on the nature of the theoretical relationship that was specified; evidence supporting a more rigorous and demanding relationship will provide greater confidence in the construct validity of the measure being assessed.

Carmines and Zeller (1979) consider construct validity the most useful form of validity for the social sciences, given the weaknesses of criterion-related and content validity for many abstract social science concepts. They note, though, that a potentially serious problem in assessing construct validity involves the conclusions to be drawn when a measure behaves inconsistently with theoretical expectations (Carmines and Zeller 1979: 25-26). The most common inference in such a situation is that the empirical measure does not adequately represent the underlying theoretical concept, indicating a lack of construct validity for that particular concept. Alternative inferences include the possibilities that the theoretical framework used to generate the relationship is incorrect, the testing methodology is flawed or inappropriate, or that the other variable(s) in the hypothesized relationship are flawed (while the measure being assessed may actually be highly valid). Although certain types of evidence may help to rule out one or more of these possibilities, Carmines and Zeller (1979: 25) note that there is no foolproof procedure for determining which is correct in any given case.

An important test of the construct validity of territorial claims data involves the relationship between the territorial claims and conflict severity. A great deal of recent research has suggested theoretically that adversaries contending over territorial issues should be more conflict-prone and more escalatory than other adversaries, and empirical analyses have supported these theoretical suggestions (e.g., Vasquez 1996a, 1996b; Hensel 1996, 1997). Given these arguments and empirical findings, it would appear reasonable to expect that states involved in territorial claims (as collected by ICOW, Huth, or Kocs) should be more likely to escalate their confrontations to severe levels than should states that lack such claims. Evidence that territorial claims dyads are more escalatory should increase our confidence in the validity of the relevant data sets, while contrary evidence should act to decrease our confidence (bearing in mind Carmines and Zeller's warning about determining the source of apparent anomalies).

[Table 4 about here]

Table 4 examines the performance of the ICOW, Huth, and Kocs territorial claims data sets at accounting for the escalation of militarized interstate disputes in the entire spatial-temporal domain covered by the respective data sets (the Western Hemisphere from 1816-1996 for ICOW, the entire world from 1950-1990 for Huth, and the entire world from 1945-1987 for Kocs). The dependent variable in this table is dispute escalation to the point of fatalities, indicating whether or not there was at least one dispute-related fatality (not counting deaths from accidents, disease, or other non-dispute-related causes). Although escalation to full-scale war may be a preferable measure of more escalatory disputes, the small number of wars in each section of this table precludes meaningful analysis. Additionally, the table is limited to bilateral disputes involving only one nation-state on each side, in order to avoid any potential distortions that may be introduced by including multilateral disputes or wars (each of which could contribute as many as several dozen disputant dyads, in the case of the world wars and the Korean War).

The results presented in Table 4 indicate that all three territorial claims data sets produce significant results in the expected direction, increasing our confidence in the validity of all three. Both the Huth and Kocs measures produce highly significant differences (p < .001) between militarized disputes occurring within and outside of territorial claims, even when considering the impact of the issues involved in specific disputes (see Hensel 1996). Additionally, the ICOW measure reaches borderline significance (p < .07), although its spatial domain is limited to the Western Hemisphere instead of the entire world as with the Huth and Kocs measures. In short, the most escalatory disputes under any of the three territorial claims measures are disputes occurring within an ongoing territorial claim and involving territorial issues, the second most escalatory are non-territorial disputes occurring within territorial claims, and the least escalatory are disputes occurring outside of the context of territorial claims.

Another important lesson from this analysis is that similar results are produced by all three measures of territorial claims. Thus, despite their different definitions of territorial claims, different data collection procedures, and different sets of cases (see Table 2), the results of an empirical analysis do not appear to depend heavily on the particular territorial claims data set that is used. This finding increases our confidence in the validity of all three data sets -- in marked contrast to the results of comparisons of events data sets such as WEIS and COPDAB, for which scholars have noted that empirical results may depend on which data set is employed (e.g., Howell 1983; Vincent 1983).

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¹¹ Similar results are obtained from an analysis using the territorial change data set rather than the MID data. Territorial changes occurring in the context of ongoing territorial claims are much more likely to occur through violence than are territorial changes occurring outside of territorial claims, regardless of which territorial claims data set is used.

Spatial and Temporal Validity Issues

One last dimension of validity that must be considered is the extent to which a given measure is valid across space and time. A good indicator should be applicable to a wide range of countries, and should be useful over the long temporal period examined by many studies of interstate conflict. As Goertz and Diehl (1986) rightly note, though, scholars are often forced to strike a difficult balance between choosing a valid indicator for one particular historical period and choosing an indicator that is comparable across multiple periods.

Examples of measures that are susceptible to spatial or temporal validity problems include measures of national capabilities or "power" and measures of democracy. A measure of national capabilities that produces a fairly valid ranking of states by capabilities for the early nineteenth century is likely to produce a more misleading ranking by the early twentieth century, and the validity of the ranking is likely to diminish further with the passage of time. Singer (1990; see also Goertz and Diehl 1986) discusses these issues in the context of the COW data set on national material capabilities, which attempts to use a consistent measure of capabilities for the entire world from 1816 to the present. Similarly, any measure of democracy based on today's standards of widespread suffrage is likely to indicate that there were no democracies throughout much of history. Several centuries ago, even the most democratic states in the world typically restricted voting rights to wealthy, white, male landowners, and even today there is wide variation in patterns of democracy between geographic regions; many of the more democratic states by African standards may be less democratic on many measures than most European democracies.

There is little reason to expect such problems with temporal or spatial validity in the ICOW project. I feel that ICOW (as well as related projects) employs a definition and operationalization strategy that is likely to be meaningful across a wide span of space and time. Claims to territory today appear to be very similar to claims to territory in the early nineteenth century, as long as they are made by official government representatives and mention the claimed territory explicitly. What variation there might be should be accounted for by our attempt to collect data on the characteristics of each claim in the data set. That is, many claims today may be less salient than claims made one or two centuries ago because some of the most highly salient claims have been resolved or dropped (and because most territory on the planet is now physically occupied by somebody), but this varying salience can be reflected in our measures of the area, population, and other characteristics of each claimed territory.

Inter-Coder Reliability

Reliability refers to the extent to which a measurement procedure produces the same result in repeated measurements of the same phenomenon. One important way to assess reliability in the social sciences is to have several researchers attempt to code the same case using the same coding

rules. A highly reliable measuring instrument -- or a highly reliable set of coding rules -- will generate identical (or very similar) results when applied to the same case by multiple coders. The ICOW project has not employed many coders up to the present point, so inter-coder reliability is difficult to measure at the present stage of the project. Indeed, up to now the project has had one primary research assistant assigned to collect the data and to assign preliminary codings, although the project director has examined every case before it is considered finalized.

One measure of the inter-coder reliability at the present point is the correspondence between the preliminary codings assigned by the research assistant and the final codings assigned by the project director. In terms of identifying the cases listed in Table 1, the correspondence has been quite high; very few cases (less than ten percent) have been coded incorrectly and subsequently changed by the project director. Once additional research assistants become involved in the project (beginning in late March of 1998), more formal measures of inter-coder reliability will become possible. Upon familiarizing themselves with the coding rules and with several sample cases that were coded by previous research assistants (and approved by the project director), further research assistants will be assigned to code a small number of cases that have already been collected, which can then be compared to the same cases in their final form in the present data set. I expect that the inter-coder reliability will be quite high, given the high degree of correspondence between the original research assistant and the project director, and given that the coding rules have been improved somewhat from the original version to clarify questions from the original coder.

Source Coverage Issues

Most validity and reliability problems would appear to be resolvable by a well-prepared scholar. That is, with enough careful attention to the underlying concepts and the theoretical arguments being considered, a resourceful scholar should be able to produce a generally valid measure of most social phenomena. Similarly, with enough planning and detail in designing coding rules and procedures, a careful scholar should be able to produce a reliable measure that can be replicated quite accurately by other scholars. One problem that even the most careful or imaginative scholar may not be able to overcome, though, involves shortcomings in the source materials that are consulted in collecting data. If the only available data sources are incomplete, systematically biased, or otherwise inaccurate, then even a well-designed research strategy may not be able to produce good data (see Singer 1990: 14-18).

The accuracy and validity of data sources has been the source of recurring debate and analysis in the scholarly literature on events data collection. Howell (1983), for example, considers that some of the differences in identification of events between the WEIS and COPDAB

data sets may derive from the sources examined in collecting these respective data sets.¹² Vincent (1983: 163-164) also suggests that the WEIS emphasis on the *New York Times* in data collection may have led to a bias toward major powers, while the multiple sources used by COPDAB allowed identification of more events in Latin America, Africa, and the Middle East.

Huxtable and Pevehouse (1996) see data source validity as a serious problem to be resolved in collecting events data, with several implications for the validity of the resulting data collection. If only one source is used in collecting data, then the validity of the collected data may turn out to be quite high -- but only in terms of the news events reported in that particular source. If no attempt is made to trace the linkages between news coverage in that source and events in the "real world," Huxtable and Pevehouse (1996: 9) argue, the resulting data "can only be considered a record of reports, not of real world events between actors," and can only be used to forecast what that source will report. A preferable approach would be to compare the coverage of multiple news sources, in order to identify such potential biases as the number or type of events that are reported, and the wording or presentation of included events. Thus, even though the KEDS events data collection project focuses on news feeds from the Reuters news service as a data source, Huxtable and Pevehouse's empirical examination reveals Reuters to be a reasonably good source. None the less, Huxtable and Pevehouse (1996: 14) suggest that using multiple media sources "may produce data that more validly reflect real world political phenomena."

As noted earlier, the ICOW project relies on numerous sources for data collection. We have no reason to believe that there is any systematic bias running through most or all of these sources that might contaminate the resulting data in any systematic way. If only one global or regional source were used, then the resulting data set would be at risk of being limited to the cases that the one author considered important, and the details of the data set would be at risk of being clouded by the judgment of that one author. Similarly, if only one side's perspective were considered in detailed sources focusing on individual countries or individual territorial claims, then the resulting data set might be at risk of being slanted by propaganda designed to make one side appear virtuous while making its adversary appear malevolent. Yet as noted earlier, each case in our data set has been researched using multiple sources, including sources with a global or regional focus as well as cases with a specific focus on the individual case (where possible). As a result, it appears safe to conclude that the final version of the data set is free from any type of systematic bias that could be traced to a particular source or group of sources.

¹² WEIS was based on a single source (the *New York Times*), while the COPDAB data set was based on multiple sources (including the *New York Times* as well as others). Howell concludes, though, that any differences in source coverage seem unlikely to account for the differences between the two data sets, because WEIS contains many more events than COPDAB -- which used the same source as WEIS as well as other more regional sources.

Conclusions

This paper has considered a number of potential validity and reliability problems that often afflict social science data sets. In general, the ICOW territorial claims data earns high marks in each category. Convergent validity is high, with a great degree of overlap with related data sets. The ICOW data set includes almost every case identified by past attempts to study territorial claims, as well as several additional cases that have not appeared in these past attempts. The ICOW data set also does as well as or better than alternative territorial claims data sets in terms of overlap with cases of territorial conflict identified by past data collections. Even considering these differences in coverage, though, using different territorial claims data sets for empirical analysis does not appear to produce dramatically different results. Although the number of coders employed so far in ICOW data collection has been very limited, preliminary indications suggest high levels of intercoder reliability, at least with regard to the identification of territorial claim cases. Finally, there is little reason to believe that the ICOW data has been biased in any systematic way by problems in source coverage.

Perhaps the most important lesson to be learned from the present paper is that territorial claims data does not appear to be as vulnerable to inconsistencies as the events data sets compared in the famous 1983 *International Studies Quarterly* symposium. The ICOW and Huth data sets include more territorial claims than the Kocs and Mandel collections, at least in the period of spatial-temporal overlap between the different data sets. Similarly, the ICOW and Huth data sets show a high degree of correspondence with the territorial cases identified by data sets on militarized interstate disputes, crises, wars, and territorial changes for their respective spatial-temporal domains.¹³ Yet the ICOW, Huth, and Kocs data sets all lead to very similar conclusions on the impact of territorial claims on militarized conflict.

It should be noted that this study's analyses have focused on the most basic level of correspondence between these data sets, involving the question of whether or not a claim exists between two states in a given year. Additional research needs to examine the correspondence on more detailed points, such as attempted settlements of territorial claims and specific characteristics of claims. I plan to conduct such analysis at a later time as time and resources permit, and once I am able to obtain the needed attempted settlement data (as discussed earlier in this paper). For now, though, we may feel fairly confident in the high degree of overlap between the existing data sets on territorial claims and territorial issues, at least as far as case identification is concerned.

¹³ The Kocs data set shows somewhat lower correspondence, due in large part to Kocs' focus on contiguous claims, which excludes a large number of cases that Huth and ICOW include (and that are represented in the data sets on interstate disputes, crises, wars, and territorial changes).

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Table 1: ICOW Western	Hemisphere Territorial	Claims, 1816-1996
Claim	Participants	Dates
North America		
	1103 1117	1016 1017
Passamaquoddy Bay Islands	USA – UK	1816 - 1817
St. Croix - St. John	USA - UK	1816 - 1842
49th. Parallel	USA - UK	1816 - 1818
Oregon	USA - UK	1816 - 1846, 1846 - 1872
Portland & Lynn Channels	Russia - UK	1821 - 1825
	UK - USA	1872 - 1903
Lake of the Woods	USA - UK	1912 - 1920
	USA - Canada	1920 - 1925
Texas	USA - Mexico	1831 - 1848
Mesilla Valley	USA - Mexico	1848 - 1854
Morteritos-Sabinitos	Mexico - USA	1884 - 1884
Bancos	Mexico - USA	1884 - 1972
El Chamizal	Mexico - USA	1895 - 1963
Los Algodones	Mexico - USA	1996 - 1997*
Florida	USA - Spain	1816 - 1819
Amelia Island	USA - Spain	1816 - 1819
Central America & Caribb	pean	
Isla de Pinos	USA – Cuba	1901 - 1925
Guantánamo Bay	USA - Cuba	1960 - 1997*
Navassa Island	Haiti - USA	1859 - 1914, 1935 - 1997*
Swan Islands	Honduras - USA	1899 - 1972
Canal Zone	USA - Colombia	1899 - 1922
Calla1 Zolle	Panama - USA	1920 - 1979
Caribbean Cays	Colombia - USA	1890 - 1928
Calibbean Cays	Honduras - USA	1899 - 1928
	Honduras - Colombia	1899 - 1928
Die Meggegre		
Rio Massacre	Haiti - Dom. Rep.	1894 - 1914, 1935 - 1935
Chiapas	Guatemala - Mexico	1868 - 1882
Rio Hondo	Mexico - UK	1831 - 1897
Clipperton Island	Mexico - France	1858 - 1934
Rio Motagua	Honduras - Guatemala	1899 - 1933
Cordillera Monte Cristo	Guatemala - El Salv.	1935 - 1938
Belize	Guatemala - UK	1868 - 1981
- 1	Guatemala - Belize	1981 - 1997*
Bolsones	El Salvador - Honduras	1899 - 1992
Gulf of Fonseca	Honduras - El Salvador	1899 - 1997*
	Honduras - Nicaragua	1900 - 1997*
	El Salv Nicaragua	1900 - 1997*
Teotecacinte	Nicaragua - Honduras	1900 - 1961
Sapodilla	Guatemala - Belize	1981 - 1997*
	Honduras - Belize	1981 - 1997*
	Honduras - Guatemala	1981 - 1997*
Rio San Juan	Nicaragua - Costa Rica	1920 - 1940
Mangles/Corn Islands	Colombia - Nicaragua	1900 - 1930
San Andres y Providencia	Nicaragua - Colombia	1900 - 1928, 1980 - 1997*
Mosquito Coast	Colombia - UK	1831 - 1848
	Nicaragua - UK	1900 - 1905
Rio Sixaola y Rio Coto	Costa Rica - Panama	1920 - 1941
Juradó	Panama - Colombia	1920 - 1924

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South America
Goajirá-Guainía
                            Venezuela - Colombia
                                                   1841 - 1922
                                                   1953 - 1997*
Los Monjes
                            Colombia - Venezuela
                            Ecuador - Colombia
Oriente-Aquarico
                                                   1854 - 1919
                                                   1839 - 1922, 1932 - 1935
Loreto-Leticia
                            Peru - Colombia
                            Brazil - Colombia
                                                   1831 - 1928
Apaporis
                            Venezuela - Netherlands 1857 - 1865
Aves Island
                            Venezuela - UK 1841 - 1899, 1951 - 1966
Essequibo
                            Venezuela - Guyana
                                                   1966 - 1997*
Patos Island
                            Venezuela - UK
                                                   1859 - 1942
                            Venezuela - Brazil
Amazonas
                                                   1841 - 1928
                            Netherlands - Venezuela 1850 - 1856
Los Roques
                            Netherlands - UK 1831 - 1966
Corentyn
                                                   1966 - 1975
                            Netherlands - Guyana
                                                 1966 - 1975
1975 - 1997*
                            Suriname - Guyana
Pirara
                            Brazil - UK
                                                   1838 - 1926
                                                   1849 - 1975
Maroni
                            Netherlands - France
                            Suriname - France
                                                  1975 - 1997*
Tumuc-Humac
                            Brazil - Netherlands 1852 - 1906
                            France - Brazil
                                                   1826 - 1900
Amapá
Oriente-Mainas
                            Ecuador - Peru
                                                   1854 - 1997*
                            Brazil - Ecuador
                                                  1854 - 1922
                            Spain - Peru
                                                   1864 - 1866
Chincha Islands
Acre-Purús
                            Peru - Brazil
                                                   1839 - 1909
                            Peru - Bolivia
                                                   1848 - 1912
Acre-Madre de Dios
                            Peru - Chile
                                                   1879 - 1929
Tacna-Arica
                            Brazil - Bolivia
                                                   1848 - 1909
Acre-Abuná
                                                   1846 - 1872
                            Paraguay - Brazil
Apa
Misiones
                            Argentina - Brazil
                                                  1841 - 1895
                                                   1882 - 1997*
Yaguarón
                            Brazil - Uruguay
Trindade Island
                            Brazil - UK
                                                   1826 - 1896
                                                  1878 - 1939
Chaco Boreal
                            Bolivia - Paraguay
Antofagasta
                            Chile - Bolivia
                                                  1848 - 1997*
                            Argentina - Bolivia
Puna de Atacama
                                                  1841 - 1935
Chaco Central
                            Paraguay - Argentina 1846 - 1878
                                                  1841 - 1903
Patagonia
                            Chile - Argentina
                                                   1896 - 1899
                            Chile - Argentina
Los Andes
                                                   1971 - 1985
                            Argentina - Chile
Beagle Channel
                                                   1903 - 1997*
Laguna del Desierto/Palena
                            Argentina - Chile
La Plata
                            Argentina - Uruguay
                                                   1882 - 1973
                                                   1841 - 1997*
Falkland/Malvinas Islands
                            Argentina - UK
* Claim is coded as ongoing as of Dec. 31, 1996
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Table	2: Comparison of Western Hemisphere	Territ	orial	Claims	Data
A.	Huth Territorial Disputes, 1950-1990				
	(Dyadic) Territorial Dispute, Dyad in ICOW	: 23	(95.8%	5)	
	Territorial Dispute, Dyad Not in ICOW:	1	(4.2)		
	Total (Dyadic) Huth Territorial Disputes:	24			
	ICOW Claim Dyads, Dyad in Huth List:	22	(81.5%	;)	
	ICOW Claim Dyads, Dyad Not in Huth List:	5	(18.5%	5)	
	Total ICOW Claim Dyads (1950-1990):	27			
в.	Kocs Territorial Disputes, 1945-1987				
	Territorial Dispute, Dyad in ICOW:	8	(100%)		
	Territorial Dispute, Dyad Not in ICOW:	0			
	Total Kocs Territorial Disputes:	8			
	ICOW Claim Dyads, Dyad in Kocs List:	8	(66.7%	;)	
	ICOW Claim Dyads, Dyad Not in Kocs List:	4	(33.3)		
	ICOW Claim Dyads, Dyad Not Contiguous:	15	(N/A)		
	Total ICOW Claim Dyads (1945-1987):	27			
c.	Mandel (Butterworth) Border Disputes,	1945-19	74		
	Border Dispute, Dyad in ICOW:	6	(100%)		
	Border Dispute, Not in ICOW:	0			
	Total Mandel Territorial Disputes:	6			
	ICOW Claim Dyads, Dyad in Mandel List:	6	(28.6%	;)	
	ICOW Claim Dyads, Dyad Not in Mandel List:	15	(71.4)		
	Total ICOW Claim Dyads (1945-1974):	21			

Table	3: Comparison of Territorial Conflict Data		
A.	Bilateral MIDs (Western Hemisphere, 1816-1992)		
	MID includes Territorial Issue(s), Dyad in ICOW:	153	(92.2%)
	MID includes Territorial Issue(s), Dyad Not in ICOW:	13	(7.8)
	Total MIDs over Territory (1816-1992):	168	
	MID includes Territorial Issue(s), Dyad in Huth List:	45	(88.2%)
	MID includes Territorial Issue(s), Dyad Not in Huth List:	6	(11.8)
	Total MIDs over Territory (1950-1990):	51	
	MID includes Territorial Issue(s), Dyad in Kocs List:	29	(50.0%)
	MID includes Territorial Issue(s), Dyad Not in Kocs List:	29	(50.0)
	Total MIDs over Territory (1945-1987):	58	
в.	Dyadic ICB Crises (Western Hemisphere, 1918-1994)		
	Crisis over Territory, Dyad in ICOW:	17	(100%)
	Crisis over Territory, Dyad Not in ICOW:	0	
	Total Crises over Territory (1918-1994):	17	
	Crisis over Territory, Dyad in Huth List:	8	(88.9%)
	Crisis over Territory, Dyad Not in Huth List:	1	(11.1)
	Total Crises over Territory (1950-1990):	9	
	Crisis over Territory, Dyad in Kocs List:	5	(55.6%)
	Crisis over Territory, Dyad Not in Kocs List:	4	(44.4)
	Total Crises over Territory (1945-1987):	9	

c.	Holsti Interstate Wars (Western Hemisphere, 1816-1	989)	
	Territorial War, Dyad in ICOW:	5	(100%)
	War over "Territory" Issue: 3		
	War over "Strategic Territory": 0		
	War over "Territory (Boundary)": 2		
	Territorial War, Dyad Not in ICOW:	0	
	Total Holsti Territorial Wars (1816-1989):	5	
	Territorial War, Dyad in Huth List:	3	(100%)
	Territorial War, Dyad Not in Huth List:	0	
	Total Holsti Territorial Wars (1950-1990):	3	
	Territorial War, Dyad in Kocs List:	2	(66.7%)
	Territorial War, Dyad Not in Kocs List:	1	(66.7%)
	Total Holsti Territorial Wars (1945-1987):	3	
D.	Interstate Territorial Changes (Western Hemisphere,	181	6-1996)
	Territorial Change, Dyad in ICOW:	43	(70.5%)
	Territorial Change, Not in ICOW:	8	(29.5)
	Total Territorial Changes (1816-1996):	51	
	Territorial Change, Dyad in Huth List:	4	(66.7%)
	Territorial Change, Not in Huth List:	2	(33.3)
	Total Territorial Changes (1950-1990):	6	
	Territorial Change, Dyad in Kocs List:	1	(16.7%)
	Territorial Change, Not in Kocs List:	6	(83.3)
	Total Territorial Changes (1945-1987):	7	

Table 4: Territorial	Claims and	Militarized Dis	pute Severity
A. ICOW Claims (We	stern Hemisph	ere, 1816-1992)	
	Fataliti	es in MID?	
	<u>No</u>	Yes	<u>N</u>
No Territorial Claim	105	10 (8.7%)	115
Territorial Claim + Nonterritorial MID	78	9 (10.3)	87
Territorial Claim + Territorial MID	110	24 (17.9)	134
Total	293	43 (12.8%)	335
	$x^2 = 5.34$	(2 d.f., p < .07	')
B. Huth Claims (En	tire world, 1	.950-1990)	
	Fataliti	es in MID?	
	<u>No</u>	Yes	<u>N</u> _
No Territorial Claim	452	64 (12.4%)	516
Territorial Claim + Nonterritorial MID	135	35 (20.6)	170
Territorial Claim + Territorial MID	144	90 (38.5)	234
Total	731	189 (20.5%)	920
	$x^2 = 66.9$	7 (2 d.f., p < .0	001)
C. Kocs Claims (Ent	tire world, 1	.945-1987)	
	Fataliti	es in MID?	
	<u>No</u>	Yes	<u>N</u>
No Territorial Claim	574	94 (14.1%)	668
Territorial Claim + Nonterritorial MID	31	17 (35.4)	48
Territorial Claim + Territorial MID	90	69 (43.4)	159
Total	695	180 (20.6%)	875
	$x^2 = 74.4$	4 (2 d.f., p < .0	001)

Appendix I: Western Hemisphere T	erritoriality Data
Huth Territorial Disputes (1950-90):	
Argentina - Chile	1950-90
Argentina - UK	1950-90
Argentina - Uruguay	1950-73
Bolivia - Chile	1950-90
Cuba - USA	1959-90
Ecuador - Peru	1950-90
Guatemala - UK / Belize	1950-90
Honduras - El Salvador	1950-90
Honduras - USA	1950-72
Mexico - USA	1950-63
Netherlands / Suriname - UK / Guyana	1950-90
Netherlands / Suriname - France	1950-90
Nicaragua - Colombia	1980-90
Nicaragua - Honduras	1950-60
Nicaragua - USA	1950-71
Panama - USA	1950-77
Uruguay - Brazil	1950-90
	1951-90
Kocs Territorial Disputes (1945-87): Never Resolved:	
Kocs Territorial Disputes (1945-87): Never Resolved: Argentina - Chile (Picton, Lennox, & Nueva Isla Argentina - Uruguay (Rio de la Plata) El Salvador - Honduras (Boundary placement)	ands) 1945-85 1969-73 1945-
Kocs Territorial Disputes (1945-87): Never Resolved: Argentina - Chile (Picton, Lennox, & Nueva Isla Argentina - Uruguay (Rio de la Plata) El Salvador - Honduras (Boundary placement) Guyana - Suriname (Corentyne River tributary re	ands) 1945-85 1969-73 1945-
Kocs Territorial Disputes (1945-87): Never Resolved: Argentina - Chile (Picton, Lennox, & Nueva Isla Argentina - Uruguay (Rio de la Plata) El Salvador - Honduras (Boundary placement) Guyana - Suriname (Corentyne River tributary re Honduras - Nicaragua (Boundary placement) Previously Resolved:	ands) 1945-85 1969-73 1945- egion) 1975- 1945-61
Kocs Territorial Disputes (1945-87): Never Resolved: Argentina - Chile (Picton, Lennox, & Nueva Isla Argentina - Uruguay (Rio de la Plata) El Salvador - Honduras (Boundary placement) Guyana - Suriname (Corentyne River tributary re Honduras - Nicaragua (Boundary placement) Previously Resolved: Belize - Guatemala (Belize)	ands) 1945-85 1969-73 1945- egion) 1975- 1945-61
Kocs Territorial Disputes (1945-87): Never Resolved: Argentina - Chile (Picton, Lennox, & Nueva Islander and Polata) El Salvador - Honduras (Boundary placement) Guyana - Suriname (Corentyne River tributary resolved: Honduras - Nicaragua (Boundary placement) Previously Resolved: Belize - Guatemala (Belize) Ecuador - Peru (Jaén and Maynas provinces)	ands) 1945-85 1969-73 1945- egion) 1975- 1945-61
Kocs Territorial Disputes (1945-87): Never Resolved: Argentina - Chile (Picton, Lennox, & Nueva Isla Argentina - Uruguay (Rio de la Plata) El Salvador - Honduras (Boundary placement) Guyana - Suriname (Corentyne River tributary re Honduras - Nicaragua (Boundary placement) Previously Resolved: Belize - Guatemala (Belize) Ecuador - Peru (Jaén and Maynas provinces)	ands) 1945-85 1969-73 1945- egion) 1975- 1945-61
<pre>Wenezuela - UK / Guyana Kocs Territorial Disputes (1945-87): Never Resolved: Argentina - Chile (Picton, Lennox, & Nueva Isla Argentina - Uruguay (Rio de la Plata) El Salvador - Honduras (Boundary placement) Guyana - Suriname (Corentyne River tributary re Honduras - Nicaragua (Boundary placement) Previously Resolved: Belize - Guatemala (Belize) Ecuador - Peru (Jaén and Maynas provinces) Guyana - Venezuela (Western Guyana)</pre> Mandel Territorial Disputes (1945-74):	ands) 1945-85 1969-73 1945- egion) 1975- 1945-61
Kocs Territorial Disputes (1945-87): Never Resolved: Argentina - Chile (Picton, Lennox, & Nueva Islandary and Islandary - Uruguay (Rio de la Plata) El Salvador - Honduras (Boundary placement) Guyana - Suriname (Corentyne River tributary resultant - Nicaragua (Boundary placement) Previously Resolved: Belize - Guatemala (Belize) Ecuador - Peru (Jaén and Maynas provinces) Guyana - Venezuela (Western Guyana) Mandel Territorial Disputes (1945-74):	ands) 1945-85 1969-73 1945- egion) 1975- 1945-61
Kocs Territorial Disputes (1945-87): Never Resolved: Argentina - Chile (Picton, Lennox, & Nueva Islander) Argentina - Uruguay (Rio de la Plata) El Salvador - Honduras (Boundary placement) Guyana - Suriname (Corentyne River tributary resolved: Honduras - Nicaragua (Boundary placement) Previously Resolved: Belize - Guatemala (Belize) Ecuador - Peru (Jaén and Maynas provinces) Guyana - Venezuela (Western Guyana) Mandel Territorial Disputes (1945-74): Ecuador - Peru (Peruvian Border)	ands) 1945-85 1969-73 1945- egion) 1975- 1945-61 1981- 1960- 1966-
Kocs Territorial Disputes (1945-87): Never Resolved: Argentina - Chile (Picton, Lennox, & Nueva Islander) Argentina - Uruguay (Rio de la Plata) El Salvador - Honduras (Boundary placement) Guyana - Suriname (Corentyne River tributary resolved: Honduras - Nicaragua (Boundary placement) Previously Resolved: Belize - Guatemala (Belize) Ecuador - Peru (Jaén and Maynas provinces) Guyana - Venezuela (Western Guyana) Mandel Territorial Disputes (1945-74): Ecuador - Peru (Peruvian Border) Honduras - Nicaragua (Honduran Border)	ands) 1945-85 1969-73 1945- egion) 1975- 1945-61 1981- 1960- 1966-
Kocs Territorial Disputes (1945-87): Never Resolved: Argentina - Chile (Picton, Lennox, & Nueva Isla Argentina - Uruguay (Rio de la Plata) El Salvador - Honduras (Boundary placement) Guyana - Suriname (Corentyne River tributary re Honduras - Nicaragua (Boundary placement) Previously Resolved: Belize - Guatemala (Belize) Ecuador - Peru (Jaén and Maynas provinces) Guyana - Venezuela (Western Guyana) Mandel Territorial Disputes (1945-74): Ecuador - Peru (Peruvian Border) Honduras - Nicaragua (Honduran Border) Chilean - Argentina Border	ands) 1945-85 1969-73 1945- egion) 1975- 1945-61 1981- 1960- 1966-
Kocs Territorial Disputes (1945-87): Never Resolved: Argentina - Chile (Picton, Lennox, & Nueva Isla Argentina - Uruguay (Rio de la Plata) El Salvador - Honduras (Boundary placement) Guyana - Suriname (Corentyne River tributary re Honduras - Nicaragua (Boundary placement) Previously Resolved: Belize - Guatemala (Belize) Ecuador - Peru (Jaén and Maynas provinces) Guyana - Venezuela (Western Guyana)	ands) 1945-85 1969-73 1945- egion) 1975- 1945-61 1981- 1960- 1966- 1966-

Territorial Changes (1816-1996), Holsti Wars (1816-1989):

Dyad	MIDs	ICB	TCs	Holsti (if any)
USA - Haiti	1	0	0	
USA - Mexico	2	0	3	
USA - Honduras	0	0	2	
USA - Nicaragua	0	0	2	
USA - Panama	1	1	2	
USA - Colombia	0	0	1	
USA - Peru	1	0	0	
USA - Chile	1	0	0	
USA - UK	5	0	8	

Dyad	MIDs	ICB	TCs	Holsti (if any)
USA - Spain	2	0	3	
USA - Russia	0	0	1	
USA - Denmark	0	0	1	
Canada - UK	0	0	1	
Haiti - Dom. Rep.	3	0	0	
Dom. Rep Spain	0	0	1	
Mexico - France	0	0	2	
Guatemala - Honduras	2	0	0	
Guatemala - UK	3	0	0	
Honduras - El Salvador	1	0	0	Yes (1969)
Honduras - Nicaragua	3	3	1	Yes (1957)
Honduras - UK	0	0	1	
Nicaragua - Colombia	2	1	0	
Nicaragua - UK	0	0	1	
Costa Rica - Panama	1	1	1	
Colombia - Venezuela	3	0	1	
Colombia - Ecuador	1	0	1	
Colombia - Peru	7	1	1	Yes (1932-1934)
Colombia - Brazil	0	0	1	,
Colombia - Spain	0	0	2	
Venezuela - Guyana	6	1	0	
Venezuela - Brazil	0	0	1	
Venezuela - UK	3	0	2	
Venezuela - Netherlands	2	0	0	
Guyana - Suriname	2	0	0	
Ecuador - Peru	25	4	1	
Ecuador - Brazil	0	0	1	
Peru - Brazil	1	0	0	
Peru - Bolivia	3	0	1	
Peru - Chile	4	0	2	
Brazil - Bolivia	1	0	4	
Brazil - Paraguay	5	0	2	
Brazil - Argentina	2	0	0	
Brazil - Uruguay	0	0	1	
Brazil - UK	3	0	0	
Brazil - France	1	0	0	
Bolivia - Paraguay	19	2	1	Yes (1928-1935)
Bolivia - Palaguay Bolivia - Chile	6	0	2	1es (1920-1933)
Bolivia - Argentina	1	0	0	
Paraguay - Argentina	0		2	
Chile - Argentina	28	0 2	4	
Chile - Mrgentina Chile - UK	3	0	0	
Chile - UK Chile - France	3 1	0	0	
	1	0	0	
Chile - Norway				
Argentina - Uruguay	3	0	0	77 (1000)
Argentina - UK	5 1	1 0	1 0	Yes (1982)
Argentina - Norway				
Uruguay - Norway	1	0	0	
Spain - Portugal	0	0	1	