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# Collective Action in the Evolution of Pre-Modern States\*

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## ABSTRACT

*Collective action theorists propose that state formation results from the strategic behavior of rational and self-interested actors, both a political elite and those outside the official structure of the state (Levi 1988: 3). The approach taken to collective action research by political scientists provides a potential path for anthropological inquiry, although, in their publications we find methodological inadequacy in hypothesis testing and a tendency to depend on European and Mediterranean history for sources of comparative data. We attempt to overcome these shortcomings by subjecting the theory to a rigorous attempt at falsification using systematic cross-cultural analysis based on a world-wide sample of societies. We describe the theory, show how we operationalized it for cross-cultural comparative coding, and describe the main results of our analysis.*

## INTRODUCTION

In this paper we evaluate the rational choice theory of collective action as it has been applied by political scientists to understanding variation in pre-modern states. Our main goal is to present the results of theory testing based on a systematic cross-cultural comparative analysis. Before we describe our method, our sample, and the results of the analysis, we outline the central arguments of the theory and point to what we think are some of its apparent advantages and disadvantages for anthropological archaeology and other historical social sciences.

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Our aim is not to promote a collective action paradigm; rather, our goal has been to subject the theory to intense empirical scrutiny. However, in reading the collective action literature, we discovered an approach with such apparent epistemological strength that we deemed it worthy of a substantial comparative research project aimed at hypothesis testing. We saw potential in the way that collective action theorists address variation in pre-modern states, and in their behavioral theory that integrates social structure and individual action to bring ‘...people back into the state’ (Levi 1988: 7). On the negative side, in its literature we found empirically thin theory testing that is too dependent on the results of experimental research and often is restricted to European and Mediterranean data. We start with comments on these three aspects of the theory:

**(1) The Emphasis is on Explaining Variation**

Explaining variation is the central analytical problem for collective action theorists interested in pre-modern states (Levi 1988). Although most collective action researchers are political scientists, their work dovetails with a recent theme of neoevolutionist literature in anthropological archaeology that has been critical of linear causal explanations and unilinear evolutionary schemes that cannot account for alternate pathways to state formation (Blanton *et al.* 1996; Blanton 1998; cf. Bondarenko, Grinin, and Korotayev 2002; McIntosh 1999). According to collective action theory, the form taken by a state depends in large part on the outcome of bargains struck between those in positions of state authority (‘rulers’, below) and non-ruling groups, especially taxpayers (*e.g.*, Bates and Lien 1985: 53; Levi 1988: 11–12, 52–68). When taxpayers or other civil society groups are endowed with few resources with which to bargain, rulers are predicted to provide few public goods, to exercise a more coercive domination of state and society, and to lack accountability in society. States that are more collective are predicted to develop if rulers are forced to strike bargains with other civil society groups, especially when rulers are strongly dependent on taxpayers for state revenues, including labor (Levi 1988). In collective states, more public goods are provided, ruler power is restricted and they are more accountable. We find the theory's processual approach to explaining variation a refreshing break from futile argumentation common in anthropological archaeology

between conflict theorists, who focus attention on elite agency and dominance in state formation (*e.g.*, Roscoe P. B. 1993), and functionalists who propose that states develop because they provide benefits (Service 1975). Collective action theory addresses both the conflictive and cooperative dimensions of human action in state building (*e.g.*, Bates 1983: 141).

(2) The Goal is to Develop a Behavioral Theory of Collective Action

To develop an appropriate behavioral theory (*e.g.*, Hardin 1982: 2; Ostrom 1998: 1), collective action researchers have taken a productive middle path (similar to Granovetter 1992: 22) between a '*homo economicus*' perspective of methodological individualism, on the one hand, and normative determinism, on the other. This middle path avoids the excessive economism of the 'under-socialized' individualistic maximizer typically found in an economic theory that pays scant attention to either institution-building or culture (Bates 1983: 140; Levi 1988: 7, 161; Lichbach 1996: 208–211). Collective action theory also avoids the normative fallacy, with its 'over-socialized' actors unlikely to enact individual strategies (Levi 1988: 160; Lichbach 1996: 15–17, 21, 211–212). Collective action theory addresses the interplay of strategic behavior, institutions, organization, and culture in attempting to answer the question: How can groups form even though people are rational? (*e.g.*, Lichbach 1996: 5, *passim*; North 1981: 45; Olson 1971). As applied to the problem of state formation, the key question is: Can collective states develop even though people are rational? Because they are rational, social actors attempting to build a collective state face the dilemma that while mutual cooperation might bring benefits, rational individuals will withhold cooperation while still gaining benefits (free riding) (*Ibid.*). And there are other ways rational actors may inhibit the development and maintenance of collective states. Potential cooperators in state-building may also withhold support if they have no way of knowing whether rulers will honor their agreements (Levi 1988: 60–64), if persons in positions of authority are likely to benefit themselves at the expense of the collective (the 'agency problem') (Lichbach 1996: 218), or if they perceive that others are free riding without consequences (Levi 1988: 66–67). The fact that collective enterprises may not be supported means that potentially useful organizations will remain la-

tent (Olson 1971) or will collapse unless suitable institutions and cultural systems can be constructed and maintained that allow for collective groups to function.

This behavioral theory of the collective action approach stands as a corrective to the naïve social behavioral assumption shared by both Marxists and functionalists, namely, that cooperative groups will form around shared needs (Hardin 1982: 2; Lichbach 1996: 63). Marxists argue that an economic elite will find it worthwhile to cooperate to establish the state to protect property rights in a situation of growing opposition between economic classes (Hechter 1983: 18; Levi 1988: 186). Analogously, functionalists argue that the state will be created when a centralized institution is able to provide economic benefits (Service 1975: 298, *passim*). These assumptions are weakened by their failure to address the complex interplay between processes of group formation (the macro problem) and the rational behavior of social actors (the micro problem) (Barry 1970; Bates 1983: 135; Hardin 1982; Hechter 1983; Levi 1988: 160, Appendix). As Lichbach puts it (1996: 32), a collective action problem or cooperator's dilemma '...arises whenever mutually beneficial cooperation is threatened by individual strategic behavior'. Collective action researchers have identified a number of strategies that may be employed to account for rational choice in the construction of successful collective social systems, as we describe below.

**(3) Collective Action Research is Limited by its Narrow Geographical Focus, Dependence on Experimental Research, and Limited Comparative Methodology**

Owing to its origins in European political philosophy and political science, typically, the data of the collective action literature on early states are limited to European and Mediterranean history (*e.g.*, Levi 1988: 5). Bates's (1983: ch. 2) comparison of political centralization in pre-modern African states is a notable exception, and research by Lichbach (1994) and Popkin (1988) on peasant rebellions, and Popkin (1979) on Vietnamese peasants also intersect with some topics of anthropological interest outside of European history. One goal of this paper is to transcend the typical Western bias of collective action literature by evaluating the theory using a world-wide sample of societies (the coded societies are listed in Table 1).

Although theory testing is positively valued in some of the collective action literature (*e.g.*, Levi 1988: 203; Lichbach 1996: 24), the approaches to theory testing tend to be strongly deductive (*e.g.*, Lichbach 1996), empirically thin, and methodologically limited. The results of experimental research are frequently cited to support key aspects of the theory (*e.g.*, Ostrom 1998), a tactic not likely to impress anthropologists such as ourselves who prefer conclusions based on more richly contextualized data derived from field work or historical sources. Comparison is sometimes employed as an analytical method, usually to illustrate how collective action processes have played out under diverse economic conditions, but comparisons tend to be limited to two or a few cases. Contrasting late medieval and early modern England and France is regarded as a rich source of comparative insights (*e.g.*, Levi 1988: ch. 5; Levi and Bates 1988), but most anthropologists, we think, would prefer a more broadly-based cross-cultural comparative method for theory testing. When comparison is used, issues of reliability and validity are not formally addressed, although Bates (1983: ch. 2) did make use of the HRAF Collection of Ethnography in his African states comparison. Another goal of our project is to introduce the rigorous methodology of cross-cultural comparative research (Ember and Ember 2001) into collective action theory-building and theory-testing<sup>1</sup>.

## **OPERATIONALIZING THE COLLECTIVE ACTION VARIABLES**

To the degree that state revenues are derived primarily from sources other than public tax payments, for example, revenues from empire, from ruler-owned estates, or from control of long distance trade ('external revenues' in our terminology), the imperative to develop a collective form of the state will be weaker, and public goods and other collective action strategies are predicted to be less developed or absent. When tax payments from a broad public ('internal revenues' in our terminology) provide the bulk of revenues required to produce public goods, both rulers and ruled face a collective action problem. In more collective states, public goods are provided in exchange for taxpayer-produced revenues, and these goods and services are expected to be widely available across social sectors and territories, *i.e.*, are highly divisible (Tay-

lor 1982: 40–41). In part, this is a strategy for developing a balanced reciprocal exchange relationship between the state and taxpayers so they are more likely to comply ('quasi-voluntary compliance' in the terminology of Levi 1988: ch. 3), thus minimizing (but not eliminating) the administrative costs of monitoring for non-compliance and punishing it.

Given the central importance of the reciprocal exchange between rulers and taxpayers that is hypothesized to develop in collective states, we see the provision of public goods as a central element of collective action social process. Hence, we needed a valid method to compare public goods cross-culturally, but little work has been done along this line in the study of pre-modern states that we could draw from. All states provide at least some public goods, with military defense, judicial services, and the maintenance of social order probably the most common, although the degree to which these and other goods and services are offered is highly variable (Bates 1983: Table 10; Claessen 1978: 541 and Table 1). Below we describe additional categories of public goods we used to measure this variable for comparative study.

We take public goods to be a key indicator of the degree of collective action in a state. In addition to public goods, what we will refer to as collective action strategies also promote the coalescence and maintenance of collective states, including the development of channels for the expression of taxpayer voice (part of our variable labeled Bureaucratization, described below) and controls on ruler agency (included in our variable labeled Control over Ruler, also described below). The degree of taxpayer compliance is also a key collective action variable discussed at length in Levi (1988), but is omitted here. We found compliance difficult to operationalize for comparative coding, and, overall, the quality of information on compliance was spotty and not highly reliable. For the Resource Emphasis variable, we used data on sources of state revenues to place each society within one of three categories, primarily internal, mixed, and primarily external (see below).

Public Goods, Bureaucratization, and Ruler Control are aggregate variables derived by summing the scores given on each of their respective component elements (cf. Ember, Ember, and Russett 1992: 587; Ember *et al.* 1991: 202–205; Labovitz 1967, 1970)

(the aggregate scores for each coded society are provided in Table 1). In the coding of the component variables, higher scores signify a greater degree of conformance with the theoretical expectations of collective action theory. Hypothesis testing is based on analyzing the statistical relationships among the causal (independent) variable Resource Emphasis, and the dependent variables Public Goods, Bureaucratization, and Control over Ruler. These variables are hypothesized to be positively correlated if the basic arguments of collective action theory are applicable to pre-modern states.

## RESOURCE EMPHASIS

One of the most important selection criteria for including a polity in the coding was that sources describing it provide detailed information on the relative importance of different types of revenues (case-by-case data summaries and codes for revenue sources and the other variables are provided in Blanton and Fargher [2008]). From these data, we categorized each polity as to whether revenues were primarily internal, mixed (both categories contributed roughly equally to overall state revenues), or primarily external. The following revenue types were coded as internal: (a) taxation of ordinary (regional) market transactions; (b) taxation of basic agricultural and craft production; (c) labor tax; (d) taxation of other production (*e.g.*, mines); and (e) other internal levies, including inheritance tax, poll tax, land tax, and estate tax<sup>2</sup>. External revenues included: (a) revenue from land (including mines) directly controlled by ruler or the state (this included only categories such as feudal estates, palace lands, or similar categories of land that were recognized as a legally distinct category and that were administered separately from other taxed land); (b) revenues from external warfare and/or empire, directly controlled by ruler, and not managed within the normal administrative system for tax revenues (and this source was considered an important only insofar as the revenues significantly outweighed imperial military and administrative costs); (c) degree of monopoly control of internal and foreign trade; (d) state taxation of international trade; (e) degree of direct control of the labor of categories of persons distinct from the ordinary labor levies of taxpayers (for example, palace slaves). To summarize, internal revenues are drawn broadly from most of a polity's population, while external revenues typically are drawn

from a much narrower subset of the population (often under direct state control) or from foreign sources directly controlled by the ruler or other principals. All the coded states had both internal and external revenue streams, but data provided for the coded cases allowed us to assign priority to one or the other in most cases. The frequency of values of external, mixed, and internal revenue sources is presented in Table 2.

## **PUBLIC GOODS**

The public goods total for each society is the sum of values assigned to our public goods categories. For each category a score was assigned ranging from '1' (absent or insignificant) to '3' (widely available to most households). For transportation infrastructure and water control, we coded separately for areas in or near the main political capitals, in intermediate zones between the capitals and state boundaries, and in edge areas near the limits of state control, to better evaluate the degree to which a state makes a public good widely available across the realm. For public safety, we judged separately the availability of services in and around political capitals and away from centers of government. We did not include military defense in the public goods coding because all the coded societies provided this service to some degree and because, as a public good, military defense is often a 'lumpy' good (*i.e.*, not highly divisible) (Taylor 1982: 40). Booty or other gains from offensive wars were not coded, either, since the benefits typically are lumpy. Similarly, the provision of adjudication services was available in most of the states, and so was not coded, although judicial variables, such as right of appeal, are included in our Bureaucratization variable. The public goods we chose for coding are all more likely than defense or judiciary to allow us to evaluate cross-cultural variation. They include primarily material benefits such as road construction (so long as roads were available for public use) and water control, but we also included spiritual/emotional services, such as would result from temple or monastery endowments provided by the state. Our public goods measure is the sum of values assigned to: (a) roads and other state-supported transportation infrastructure such as bridges; (b) public water supplies and control (including irrigation related services, domestic water supplies, and flood control); (c) public safety, including crime control, the con-

trol of inter-group feuding, or other public safety services such as fire-fighting; (d) redistributive economy; and (e) any other expenditures that could be construed as public goods, *e.g.*, temple and monastery endowments, hospitals, etc. With a minimum score of '1' and a maximum score of '3' for each variable, total public goods scores potentially could range from 10 to 30. The distribution of public goods total scores is found in Table 2.

## **BUREAUCRATIZATION**

Up to this point, our terminology has reflected collective action theory's concern to address the conflict and cooperation that is predicted to take place between two broad categories of social actors, rulers (persons holding positions of state authority) and ruled (especially taxpayers). In this and the following section we refine these categories to distinguish between 'principals' (rulers, *per se*, or analogous roles representing chief executive offices of a state) and lower officials of the state's administrative apparatus, termed 'agents' (Levi 1988: 26). More collective polities must be able to provide public goods, monitor and control the behavior of agents, and carry out related functions (described below) that require the sociocultural construction of a suitable governing apparatus. The bureaucratization variable measures the degree of institutional development of rules, laws, norms of behavior, and codes of conduct for administrative agents (*cf.* North 1998: 79–81), but also assesses the degree to which violation of these codes (agency) can be detected and punished.

Our variable Bureaucratization is a complex theoretical construct that could not be measured simply or reliably as a whole. To operationalize it for comparative coding, we identified its component elements, drawing variously from Max Weber (see below), Levi (1988), and Blanton (1998), among other sources, each of which can be coded with only a minimum amount of inference, to increase face validity (Ember and Ember 2001: 47), and to increase inter-coder reliability. The component elements are structured around three broad themes: the ability to make appeals and complaints; the ability to detect and punish official agency; and the modes of recruitment and payment of office holders, as follows:

(1) Ability to Make Appeals and Complaints. A bureaucratic apparatus consistent with the aims of collective action provides

communication channels through which taxpayers can express voice. For example, are principals accessible to commoners? Is there a hierarchical structure of official positions and established procedures through which legal decisions could be appealed, and petitions presented, especially complaints about official agency or taxpayer free riding ('precise appeal hierarchy' in Weber [1978: 957])? Lower scores were given in cases where agents (or others working on behalf of the state), who might be damaged by complaints, were routinely able to block communication, for example when taxation or other state functions were placed in the hands of private contractors ('tax farming') (e.g., *Ibid.*: 965).

(2) Detecting and Punishing Agency. Here, we looked for evidence of parallel or redundant institutions that serve as independent sources of information on administrative functioning that would allow principals to detect and punish administrative agency.

(3) Office Holder Recruitment and Mode of Payment. Ideally, in a more bureaucratized system, recruitment for administrative positions should be competitive and open (Weber 1947: 335). In this case, agents are recruited from diverse sectors of society and territory and are thus less likely to favor class or other narrow sectorial interests ('free selection' in Weber 1947: 335; 'competition' in Lichbach 1996: 167), while at the same time restricting the degree to which an entrenched privileged class will maintain control over the benefits of holding state offices. Inheritance of offices or other restricted forms of recruitment also imply less control of officials by principals, hence we gave higher scores in cases where officials are selected by principals and paid a salary. The presence of salaried officials scored higher than when agents were awarded some form of control over a source of income in exchange for administrative or military services, for example variations around benefice ('appropriation of receipts' in Weber 1947: 312) and prebend (assignment to an official of rent payments), since these modes of recompense often devolve into inherited estates (Weber 1978: 963–964). Five component variables were coded for the Bureaucratization variable (feasibility of registering appeals and complaints, degree of tax farming, detection and punishment of official agency, mode of office holder recruitment, and degree to which officials are salaried) (Blanton and Fargher 2008: Table 8–1), so

scores ranged, potentially, from a low of 5 to a high of 15. The distribution of Bureaucratization scores is shown in Table 2.

### **CONTROL OVER RULER**

To build a collective polity requires institutional and organizational means to monitor and control the behavior of principals. For the collective polity to function, taxpayers must feel confident principals will not behave selfishly and will fulfill the bargains agreed to, for example, in diverting some state revenues to fund public goods. But taxpayers also must be confident that principal agency can be detected and punished. As in the case of our Bureaucratization variable, we developed a theoretical construct that would include a range of possible strategies for the regulation and control of principals, again drawing on Margaret Levi and other sources as described below. The resulting Ruler Control variable is a complex theoretical construct arrived at by summing scores assigned to the following component elements:

(1) Communicative Acts Achieve Social Trust With Tax Payers. According to the theory of collective action, potential cooperators in state-building may withhold support if they have no way of knowing whether principals will honor their agreements or if principals are likely to benefit themselves at the expense of the collective. Hence, trust-building will be based in part on modes of 'reflexive communication' (Blanton 1998: 162–166) that allow taxpayers to evaluate the demeanor and actions of principals (*e.g.*, Levi 1988: 52–53). This could involve required public appearances, palace architecture that allows for open governing council meetings, or other communication channels that make it possible for a broad public to assess the decision-making process and the degree of commitment of principals to the collective enterprise.

(2) Can Principals be Judged and Impeached? A higher score was given when the principal (or principals, in the case of a governing council) is expected to adhere to a moral code and is open to reprimand or impeachment for violating the code.

(3) The Ability of Principals to Control Material and Cognitive Resources. We reasoned that principals will be less accountable to taxpayers to the degree they retain unimpeded control over material and cognitive or ideological resources. We gave higher scores

in cases where institutions serve to place limits on principals' ability to independently make use of such resources.

(4) Expectation of Ruler Self-Abnegation. Lastly, we assessed the degree to which the standard of living of principals was or was not likely to be replicated by others in society, in other words, the degree to which principals limited their material expression of wealth (the degree of 'ruler self-abnegation') (*e.g.*, Levi 1988: 56; Lichbach 1996: 171; Popkin 1988: 62, *passim*). The Control over Ruler variable included six component variables (Blanton and Fargher 2008: Table 9-1) giving a potential range of scores from 6 to 18. The distribution of scores is found in Table 2.

## THE SAMPLE

Nearly a year was devoted to the identification of societies suitable for inclusion in the sample, and this represented one of the most difficult tasks undertaken as part of this project. The project's analytical goals require an abundance of high-quality information for each coded society concerning revenue sources, public goods, governmental apparatus, and moral codes, among other variables, but few polities have been studied so completely and in sufficient detail. In addition to the data requirements, other factors entered into the selection procedure. Ideally, all world areas would be represented in the sample, thus avoiding the Western bias of the collective action literature and the obverse tendency to avoid Western cases in much of the anthropological comparative literature (*e.g.*, Service 1975). However, some major regions, such as Central Asia, are not represented because information was deficient. Rather than a Western bias, we faced a potential African bias, given the richness of the ethnographic and historical literatures on pre-modern African states. As a consequence, several codable sub-Saharan African societies were omitted, but, even so, 10 of the 30 cases coded are from south of the Sahara. To be included, a polity had to have, minimally, three levels of administrative hierarchy in its governing apparatus. By using this simple selection criterion we allowed for the inclusion of a wide range of states of greatly varying scales and degrees of social complexity. Typically, the earliest well-described states in a given region would be selected, in order to maximize institutional and cultural variability in the sample. States that had been strongly restructured as European colonies

were not included, although some of the 18<sup>th</sup> and 19<sup>th</sup> century states in the sample were strongly influenced by the modern world-system.

Table 1 lists the 30 coded societies by major world region, indicating revenue emphasis and total scores for Control Over Ruler, Public Goods, and Bureaucratization. The table also includes the 'focal period' (Ember and Ember 2001: 64–65) for each case, a time period selected for coding that is well described in the focal sources and during which no major policy changes occurred. Table 1 also lists the focal sources we depended on for most of the coded information. Additional, more focused, sources were also consulted so long as the information pertained to the focal period. A larger sample would be desirable, and some eligible societies were not included. However, coding was ended after completing 30 cases owing to time and resource limitations. The descriptive and coding tasks for each society were substantial, and required the mastery of a considerable body of descriptive literature. Thirty-nine variables were coded, and each society was contextualized with descriptive sections on 22 informational categories detailing history, environment, agroecology, settlement, population, trade, and features potentially relevant to societal governance.

## RESULTS

Table 3 shows the sample mean values of the coded variables Public Goods, Bureaucratization, and Control Over Ruler, split by Resource Emphasis (External and Mixed/Internal)<sup>3</sup>. We report the results of the statistical analysis in Table 4, which shows the bivariate correlation coefficients ( $r$  and Spearman's Rank-Order Correlation [ $r_s$ ], and statistical significance of  $t$  tests for difference of means, where appropriate) between Resource Emphasis, Public Goods, Bureaucratization, and Control Over Ruler. All the variables are positively correlated, mostly well above the .05 level of statistical significance, except for Control Over Ruler by Public Goods, which is positively correlated but not at as high a level of statistical significance. Overall, these results lend strong empirical support to the theoretical propositions of collective action theory, namely, that to the degree that rulers depend on internal (or mixed) revenues there is likely to be a corresponding increase in the quantity of and apportionment of public goods. The provision of public

goods, in turn, strongly predicts that the state's administrative apparatus will embody more (but not necessarily all) features of our aggregate variable Bureaucratization (ability to make appeals and complaints, ability to detect and punish official agency, competitive recruitment of office holders, and salaried officials). Where resources are primarily internal or mixed, comparatively more public goods are offered, Bureaucratization scores are relatively high, and scores on our aggregate variable Control Over Ruler (ability to criticize or impeach principals, reflexive communication, limitations on principals' control of material and cognitive resources, principals' adherence to moral code, and self-abnegation) also tend to be higher.

## **DISCUSSION**

We conclude that many of the propositions of collective action theory are strongly supported by the empirical results of a cross-cultural comparative analysis. No doubt other methodological options are available for the evaluation of collective action hypotheses in addition to the cross-cultural method we used. But we believe our work constitutes an empirically rich, non-biased attempt at falsification that largely supports some of the main propositions of collective action theory as they have been applied to pre-modern states. In particular, we found strong positive statistical relationships between resource emphasis and degree of collectivity, expressed as quantity and publicness of public goods, and between public goods and bureaucratization. We found weaker but positive correlations between these variables and Control Over Ruler. These results lend support to the basic argument that more collective states evolve when taxpayers have significant bargaining power vis-à-vis ruling groups. Of course, there are many questions unanswered by our approach, for example: How did systems of taxation and revenue develop? What groups or categories of social actors were the sources of innovative practices in the construction of collective polities? But when a large and varied sample of states demonstrates a positive correlation between internal (or mixed) revenues and collective action variables, then the theory must be considered to be strongly supported even though we may not know how the collective action process played out in each particular case.

In addition to the fact that the research lends support to collective action ideas, we think several additional findings of our research are of note:

(1) Variation in Collectivity is Found Within and Between Civilizational Traditions. Polities with more collective properties emerged in more than one civilizational tradition, and expressions of collective action within particular civilizational traditions are varied. Although the institutions and organizations to implement collective action are diverse, our method allows for the detection of variation as well as the measurement and comparison of degrees of overall collectivity. Viewed from this comparative perspective, high overall scores on collective action variables are encountered in specific polities representing such diverse cultural settings as East Asia, especially Early and Middle Ming Dynasty, Africa, including Lozi and Asante, South Asia, especially Mughal (although scoring slightly below the sample mean for ruler control), and the Mediterranean, including Venice and Classical Athens, and, to some degree, the Roman High Empire Period. Both New World polities, Aztec and Inca, have moderately high to high values on bureaucratization, public goods, and, except for Inca, control over ruler. Of the southeast Asian polities, the two mainland societies, Thailand and Burma, scored somewhat above the overall sample mean in public goods, and Burma was somewhat above the sample mean in bureaucratization.

We also documented different collective action outcomes within each civilizational tradition. This is evident, for example, in the fact that the Early and Middle Ming Dynasty has some of the highest collective action scores in the overall sample, while adjacent Tokugawa Japan, although its state-building practices were somewhat influenced by Confucian philosophy, is one of the least collective systems in the sample. There is no sub-Saharan African pattern in relation to collective action (in spite of the fact that cross-cultural similarities across traditional states are identified in sources such as Claessen 1981, Fortes and Evans-Pritchard 1940: 11–12 and Murdock 1959: 37–39). Instead, we recorded a wide range of African values for collectivity, ranging from among the least collective in the sample (Bagirmi, Tio, Nupe) to some of the most collective (Asante, Lozi).

The discovery of variation in the expression of collective action within and between civilizational traditions is counter to simplistic dichotomies that posit a separate evolutionary sequence for Western liberal democracy, distinct from non-Western states described variously as ‘oriental despotisms’, ‘agro-literate’ states, ‘galactic polities’, etc., and thought to embody the features of either the Asiatic Mode of Production or loosely-organized segmentary states (*e.g.*, Asad 1973). Recent progress in historiography critiques such Eurocentric and ideology-driven concepts and urges us to focus more research attention on alternate pathways to the evolution of social complexity and the state so as to avoid overly simplistic dichotomies (*e.g.*, McIntosh 1999; Morrison 1994; Vickery 1998: ch. 1), and the results of our comparative study lend support to such diversifying efforts.

(2) Alternate Pathways to Collective Action. There have been many and diverse pathways to the construction of more collective states, but the breadth of our coding scheme allowed us to measure and compare degrees of overall collectivity in spite of the considerable cross-cultural diversity in local expressions of collective action. To illustrate this point, we summarize the main themes of collective action in three of the most collective societies we coded, Early and Middle Ming, Athens, and Lozi. Rather than provide a complete description of the complex systems of collective action in the three polities, we summarize several of their major features and identify a central theme or themes in each that appears to have been a particular concern to state-builders:

*The Early and Middle Ming Dynasty.* Here, state builders placed primary emphasis on a complex bureaucratic organization, derived in part from long-standing practices (Creel 1970) but in part reflecting innovations put in place by the dynastic founder and later Ming emperors, such as a vernacular version of the law code meant for wide distribution (Langlois 1998: 180). Complex bureaucratic organization aimed, in part, to make public goods widely available (*e.g.*, Bray 1984: 419–423; Chi 1936: 36; Hucker 1998: 89–90), but also allowed for controls over official agency and taxpayer free riding. Competitive recruitment of agents (Ho 1962: 261), salaried agents, and the strengthening of rural community institutions to address taxpayer free riding and to augment a system of community granaries are expressions of these features of Ming

governance (*e.g.*, Heijdra 1998: 469–470; Huang 1998: 109). Of special note in this regard is the development of a parallel bureaucracy, the ‘surveillance-judicial’ administration (Censurate) (Hucker 1998: 73, 91–99), charged with evaluating the behavior of civil administrators of all ranks and collecting commoner complaints about government officials. The system of governance also provided for ruler control, including moral codes drawn from Confucian sources that were expected to impact the behavior of principals and other government officials (Hucker 1998: 92), although the exercise of these controls was at times a source of conflict between principals and high officials of the civil administration who were empowered to monitor and criticize rulers (*Ibid.*: 53).

*Classical Athens.* In 4<sup>th</sup> century BCE Athens, the monitoring, regulating and controlling of those principals and agents (magistrates) who carried out day-to-day administration of the polity were key to the collective system. These policies were carried out using an institutionally and organizationally complex system that included, among other features too numerous to mention here, magistrate selection by lot (in most cases), limited terms of office-holding, public oaths of office, and careful record keeping that permitted the evaluation of potential office-holders. Terms of office concluded with a detailed financial audit (Hansen 1999: ch. 9, *passim*). Additionally, broad citizen participation was expected in diverse governing institutions that separated the powers of the *ekklesia* (a council which issued decrees), the people’s courts (a forum for the discussion of policies), the boards of legislators (*nomothetai*), and the administration (magistrates) (Hansen 1999: chs 6–12). Public goods, beyond the considerable outlay for defensive fortifications and city walls (*e.g.*, Whitley 2001: 398), were not as well developed in 4<sup>th</sup> century Athens as we encountered in many other coded polities, but there was some concern to maintain public water facilities (Gulick 1973: 303), and to provide low-cost grain in emergencies (Hansen 1999: 87–88). Various funds were distributed to needy persons (*e.g.*, Gulick 1973: 302; Hansen 1999: 259), and the state subsidized an elaborate series of public ritual events (*e.g.*, Hansen 1999: 164).

*Lozi.* Here, collective political economy was complex but exhibited two main strategies. One was a well-developed system of control over ruler, exercised, in part, through a governing council whose leading figure, alongside the ruler, the Ngambela

(Gluckman 1961: 43–49), was always a commoner. The Ngambela served as a conduit for commoner concerns vis-à-vis the ruler and the council, and he, alone, of all the council members was ‘...expected to constrain and upbraid the king in private’ (Gluckman 1961: 45–46). In addition, a well-developed moral code specified the mutual obligations of ruler and ruled and the moral expectations for ruler's actions (Gluckman 1961: 20, 43; Prins 1980: 118), and ruler sanctification was minimized owing to a dual-capital system that separated the more secular northern capital (where the ruler and council resided) from the symbolically and religiously potent southern capital (Gluckman 1961: 25–29). A well-developed public goods system, including state-sponsored drainage and transport canals, and public granaries and redistribution (*e.g.*, Prins 1980: 58–70, 93), constituted the other main collective policies.

These brief summaries hint at how diverse collective action, as a general process, can be when expressed in actual practice. All three examples, although differing in institutional and organizational details, reflect the evolution of comparatively egalitarian but complex social systems in which principals and agents were monitored and potentially punished for violating moral codes, and in which a significant portion of the state's wealth was distributed in the form of public goods.

## CONCLUSIONS

We conclude from our research that a collective action approach can contribute to the emergence of a more complete understanding of political evolution broadly conceived. We argue that adopting such an approach will allow us to overcome serious deficiencies in political evolution research found in the two disciplines that have expended the most effort on this problem, anthropology and political science. As we previously alluded to, anthropologists have been either excessively functionalist, or, even more often, see domination, political centralization, or the actions of an elite (Baines and Yoffee 1998) as the central processes of political evolution. This one-sided view, as McGuire and Paynter (1991: 10) put it, ‘views the social world from the top’ and ‘assesses the control problems of those able to dominate others’. Reflecting this perspective, Roscoe (1993: 111) argues that political evolution of the state has been

a momentous development in the human species facilitating ‘...exploitation on a hitherto unimaginable scale’, and while this has been true, in some cases, a fuller consideration of the nature of social and cultural evolution would simultaneously address the innovative practices put into place to solve problems inherent in collective political economy. Some recent progress has been made in conceptualizing alternate pathways to state formation that avoid both functionalist and centralization perspectives (*e.g.*, Blanton *et al.* 1996; Ehrenreich, Crumley, and Levy 1995), and we think that collective action theory stands in a position to contribute to this emerging theoretical trend.

Political scientists also have displayed a research bias, namely, their assumption that egalitarianism in state societies is manifested only in the evolution and diffusion of Western liberal democracy with its emphasis on elected officials and political party competition (*e.g.*, Midlarsky 1999: ch. 7). We would argue that the concept of liberal democracy to some degree is a Eurocentric perspective that fails to accommodate the wide range of social practices that can be seen in the evolution of collective states viewed more broadly. While not many of the polities in our sample allowed for choice in the selection of governing officials in the manner of liberal democracy, still, the processes of collective action reflected in the various components of our Public Goods, Bureaucratization and Control Over Ruler measures reflect a multitude of different possible solutions to the collective action problem, all aimed, as does liberal democracy, at building collective polities that can provide mutual benefits to all concerned. Although there is a potential for diversity in application, solving the collective action problem everywhere revolves around several basic requirements: restrictions on the agency of principals and other government officials and the expectation that they will conform to moral codes and can be impeached for not doing so; bureaucratic institutions and an organizational structure that make possible the detection and punishment of official agency and taxpayer free-riding; behaviors that promote social trust between rulers and ruled; a precise appeal hierarchy that allows for the expression of commoner voice and for effective and non-biased responses to appeals, complaints, and petitions; and the reduction of social inequality and ascription by increasing the quantity and divisibility of public goods along with

the competitive recruitment of governing officials. None of the coded societies achieved all of these lofty goals, although some came pretty close, but elections and political parties are no guarantee of success, either. In diverse times and places, humans have labored to build and maintain polities that embody at least some of the central features of a collective system, and collective action theory provides a useful framework for understanding how and why that might happen.

## NOTES

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<sup>1</sup> For approximately 80 % of the cases, Blanton and Fargher coded independently, then compared results (following recommendations such as those in Ember and Ember 2001: 72). Coding disagreements were resolved by revisiting the data. As we progressed, our agreement rate was so high we coded the final few societies separately, although we continued to review each other's codes.

<sup>2</sup> Exit from the polity ('voting with your feet') or threat of exit is another variable addressed in the collective action literature (*e.g.*, Bates 1983: 41; Levi 1988: 43; Ross 1988) that may be regarded as a kind of taxpayer resource that can figure into their ability to bargain with rulers. We devoted considerable time to coding for this variable, but in analyzing it we arrived at mixed and difficult to interpret results that are not addressed here (Blanton and Fargher 2008: 272–275).

<sup>3</sup> As coded, Resource Emphasis has three values (external, mixed, and internal), but the mixed and internal categories proved not to differ statistically in relationship to the dependent variables (by Bureaucratization, *t* test of difference of means significance=.65; by Public Goods, sig.=.11; by Control Over Ruler, sig.=.47), so in Tables 3 and 4 Resource Emphasis is dichotomized by combining internal and mixed.

**Table 1**

The coded societies, indicating the resource emphasis, and values for the Public Goods, Bureaucratization, and Control Over Ruler variables, followed by focal period and the main focal sources.

### *Africa*

#### *West Africa to East-Central Sudan*

1. Nupe (Fulani-Nupe); External, 10, 7.5, 8; CE 1837–1897; Nadel (1942)
2. Yoruba (Oyo Empire); External, 16, 9.5, 11; CE 1750–1800; Law (1977); Lloyd (1971)
3. Asante (Akan); Mixed, 18.5, 10.5, 15.5; CE 1800–1873; McCaskie (1995); Rattray (1923, 1929); Wilks (1975)
4. Bagirmi; External, 13, 8.5, 6; CE 1800–1900; Reyna (1990)

#### *Central Equatorial*

5. Kuba (Bushoong); External, 13.5, 10, 8.5; CE 1880–1892; Vansina (1978)
6. Tio; External, 12.5, 6, 8.5; CE 1800–1899; Vansina (1973)

#### *Interlacustrine*

7. Buganda; Mixed, 15.5, 11, 10.5; CE 1800–1880; Roscoe (1965); Southwold (1961); Wrigley (1996)
8. Bakitara (Bunyoro-Kitara, Nyoro); External, 10, 6.5, 7; CE 1860–1890; Roscoe (1923)

#### *Southern and East Coastal*

9. Lozi (Barotseland); Mixed, 22, 12, 15; CE 1864–1900; Gluckman (1941, 1943, 1961); Prins (1980)
10. Swahili Lamu; External, 10, 11.5, 14.5; CE 1800 – ca. 1870; Prins (1967, 1971); Ylvisaker (1979)

### *Southeast Asia*

#### *Mainland*

11. Thailand (Early Bangkok Period, Chakkri Dynasty, esp. Rama III); Internal, 18.5, 8, 9.5; CE 1782–1873; Rabibhadana (1969); Vella (1957)
12. Burma (Early Kon-baung Period); Internal, 20, 12, 9; CE 1752 – ca. 1800; Koenig (1990)

#### *Insular*

13. Bali (the Later Mengwi Polity); External, 14, 6, 8; CE 1823–1871; Geertz (1980); Schulte Nordholt (1996)
14. Aceh (Aceh Sultanate); External, 10, 6, 9; CE 1850–1900; Hurgronje (1906)
15. Perak; External, 12.5, 5.5, 7.5; CE 1800–1870; Gullick (1958)

16. Java (Late Mataram Period); Internal, 18.5, 10, 9.5; CE 1700–1900; Moertono (1981); Schrieke (1957)

***South Asia***

17. Vijayanagara (esp. the reign of Deva Raya II); Mixed, 18, 9.5, 9.5; CE 1350–1564; Saletore (1934); Stein (1989)

18. Pudukkottai; Mixed, 17, 7, 7.5; CE 1700–1800; Dirks (1987)

19. Mughal (reigns of Akbar, Jahangir, and Shah Jahan); Internal, 23.5, 12, 9.5; CE 1556–1658; Ali (1985); Farooque (1977); Habib (1963); Hasan (1936); Sarkar (1963)

***East Asia***

20. Ming Dynasty; Early and Middle Ming; Internal, 22, 14.5, 14.5; emphasis on CE 15<sup>th</sup> century; Huang (1974, 1998); Hucker (1978, 1998)

21. Japan (Tokugawa Period, Edo Shogunate); External, 16.5, 7, 8; CE 18<sup>th</sup> century; Hall (1991a, b); Perez (2002)

22. Tibet; Internal, 19.5, 8.5, 6; CE 1792–1951; Bell (1992); Carrasco (1959); Landon (1906)

***North Africa/Mediterranean/Europe***

23. Ancient Egypt (New Kingdom, esp. 18<sup>th</sup> and 19<sup>th</sup> dynasties); External, 20, 10, 8; BCE 1479–1213; Kemp (1989); Montet (1964, 1981); Murnane (1998)

24. Athens (the ‘New Democracy’ or ‘Age of Demosthenes’); Mixed, 20, 14, 18; BCE 403–322; Hansen (1999)

25. Roman Empire (‘High Empire’); Internal, 24, 12, 12; CE 69–192; Many sources were consulted, including Abbott 1963; Eck (2000a, b, c); Galsterer (2000); Griffin (2000a, b)

26. Venice; Internal, 21, 14, 16.5; CE 1290–1600; Lane (1973); Norwich (1982); Romano (1987)

27. England; External, 11, 8.5, 8.5; CE 1327–1336; Morris (1940); Morris and Strayer (1947); Willard, Morris and Dunham (1950)

28. Ottoman Empire (‘Classical Period’, but emphasizing the reign of Suleiman I); External, 16, 9.5, 9; CE 1300–1600; Inalcik (1994); Lybyer (1966)

***New World***

29. Aztec Empire (Triple Alliance); Internal, 21, 11.5, 12.5; CE 1428–1521; Davies (1987); Hassig (1985); van Zantwijk (1985); Zorita (1994)

30. Inca Empire; Mixed, 22, 10, 8; CE 1438–1532; D'Altroy (2002); Murra (1980).

**Table 2**

Frequencies of values of resource emphasis, public goods, bureaucratization, and control over ruler. Numbers in parentheses are the maximum possible range of scores.

Resource Emphasis (1-3)		Public Goods (11-33)		Bureaucratization (5-15)		Control Over Ruler (6-18)	
External	14	10-12.49	5	5-5.9	1	6-7.4	3
Mixed	7	12.5-14.9	5	6-7.9	7	7.5-9.9	17
Internal	9	15-17.49	5	8-9.9	7	10-12.49	3
		17.5-19.9	5	10-11.9	8	12.5-14.9	3
		20-22.49	8	12-13.9	4	15-17.49	3
		22.5-25	2	14-15	3	17.5-18	1

**Table 3**

Whole-sample mean values of public goods, bureaucratization, and control over ruler split by resource emphasis (external and internal/mixed). Standard deviation is in parentheses.

	External (N=14)	Internal and Mixed (N=16)
Public Goods	13.2 (3.04)	20.1 (2.3)
Bureaucratization	8 (1.9)	11 (2.16)
Control Over Ruler	8.7 (2.02)	11.4 (3.53)

**Table 4**

Values of  $r$  and Spearman rank order correlation values in brackets (right cells). Statistical significance (in left cells) for the bivariate correlations, with bracketed values indicating the correlation values based on the Spearman rank order method. For the dichotomized Resource Emphasis variable,  $t$  tests were used to calculate the statistical significance of differences of means split between values for external resources, and mixed and internal, combined. The upper significance value for the Resource Emphasis cells is from the  $t$ -test, the lower value is for  $r$ .

	Resource Emphasis	Public Goods	Bureaucratization	Control Over Ruler
Resource Emphasis	-----	.79	.61	.44
Public Goods	<.0001 <.0001	-----	.68 [.7]	.4 [.31]
Bureaucratization	.0005 .0004	<.0001 [<.0001]	-----	.76 [.49]
Control Over Ruler	.026 .016	.08 [.099]	.0003 [.0055]	-----

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