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Social Networks in Comparative Perspective David A Siegel dsiegel@fsu.edu Florida State University

In a sense, the study of comparative politics is the study of the role that context plays in structuring behavior. Institutional contexts, such as the nature of the electoral system or the existence of an independent judiciary, drive differences in electoral outcomes or in human rights across nations. Individual-level contextual factors such as norms, culture, or ethnic or religious identity can be determinative in understanding when social movements will flourish, and which cleavages will lead to political parties or to ethnic strife. Variation in context leads to variation in political outcomes and behavior across peoples and across nations, and provides comparative politics with its richness.

Context also leads to dissent among scholars, as we engage in internecine methodological warfare over the best way to understand the complexity induced via the inclusion of contextual factors in our theories and in our data (Mahoney and Goertz 2006). Quantitative approaches tend to look broadly but shallowly, effectively averaging across complexity in order to make generalizations across cases. Qualitative approaches tend to look narrowly but deeply, yielding a weaker argument for generalization to other cases, but a stronger one for truly understanding the determinants of behavior in the case in question. Because practitioners of each methodological school require substantial training to be successful, there tends to be insufficient commonality between them, leading to less communication than would be ideal.

Social networks and a relational approach to comparative politics promise a way to bridge the gap between scholars, to employ insights derived from deep qualitative study in cross-national, quantitative analysis. This is made possible by the focus on a core, and often overlooked, contextual factor: the role that the structure of interactions between actors plays in

understanding the behavior of individual actors, and, therefore, in understanding aggregate behavior as well. As this form of context is universal—humans are by nature social—the use of social networks minimizes the traveling problem (Sartori 1970). Networks may vary in importance by substantive topic and spatiotemporal setting, but their conceptualization is clear and constant: ties to one's parents are ties to one's parents, whatever the relevance of the ties. In this essay, I first discuss the use of social networks in general terms, focusing on the way in which relational analysis links the qualitative and the quantitative, the individual-level and the aggregate. Following this, I offer a series of four examples of the use of relational approaches in core problems in comparative politics to illustrate these points. ¹

Let us begin our general discussion with an important question: How might the promise offered by a relational approach be achieved? The key lies in identifying the appropriate level of analysis and the quality and availability of data given this level of analysis. To see how this might work, consider first individual-level analysis of behavior. The goal here is to understand the determinants of some choice or action, be it for whom or for what policy to vote, whether to turn out to vote or to protest, when or how much to alter a political opinion, and so on. There is a broad and growing empirical literature identifying the role that one's social connections play in altering one's beliefs and behavior across a variety of political activities (e.g., Huckfeldt and Sprague 1995; Leighley 1990; McAdam 1988; Petersen 2001; Sinclair 2009). The causal pathways underlying the effect of network connections are varied, and include: direct influence (Friedkin and Johnsen 1999), information transmission (Huckfeldt 2001; Lohmann1994; McClurg 2006), norms of fairness (Gould 1993), considerations of reputation (Gerber, Green, and Larimer 2008) or credibility (Granovetter 1978) or legitimacy (Opp and Gern 1993),

¹ Franzese and Hays (2008) offer a complementary analysis of interdependence in comparative politics and examples in comparative political economy.

strategic complementarities (Marwell and Oliver 1993), resource coordination (Verba, Schlozman, and Henry 1995), and safety in numbers (Kuran 1991).

Though a few (e.g., complementarities, information) of these causal pathways particularly lend themselves to quantitative analysis (Jackson 2008), others (e.g., norms, legitimacy) require more case-specific knowledge to conceptualize and potentially quantify. This knowledge can only come from deep understanding of the sort of contextual factors that qualitative scholars have long identified as being important. Thus, when one desires to map out the network connections between people in cases in which one can expect norms, culture, identity, or emotion to drive behavior both directly and indirectly via the behavior of others, qualitative scholarship is a necessity.

Once these connections are discerned, quantitative analysis becomes available. For example, one could include a simple measure of individual-level connectivity in cross-national regressions of comparative behavior. Given the strong dependence of behavior on network ties in the American context, even controlling for media effects (Mondak 1995), one would expect that connectivity would continue to prove an important explanatory variable when analyzing questions in comparative politics. This is assuming, of course, that networks are constructed that are appropriate to the case in question. Casual discussion networks may be the appropriate data from which to draw the independent variable of connectivity when political opinion formation is the behavior in question, but the same networks may not be appropriate when considering an action like protest in which participants take more risk upon themselves. In such cases the appropriate network may be strongly tied family and friends (McAdam 1988). Careful qualitative analysis is necessary to identify these important distinctions.

Beyond the individual, extant scholarship on the properties of behavioral spread in a network can help translate these insights to the aggregate level. Scholars in this tradition detail how the degree of behavioral spread depends on such network characteristics as clustering, path length, connectivity, and the number of weak ties (e.g., Centola and Macy 2007; Fowler 2005; Gould 1993; Marwell and Oliver 1993; Rolfe 2005; Siegel 2009). A mapped-out network of relations allows one to employ these theoretical insights to produce predictions as to how a population of individuals within such a network behaves, given a particular distribution of individual incentives, and given a particular causal pathway driving changes in individual behavior. For example, a network with many weak ties (Granovetter 1973) is likely to be better at distributing information, allowing individuals to update policy beliefs, than it is at encouraging a risky collective action that relies on individual attention to norms of fairness or legitimacy (Centola and Macy 2007; Siegel 2009). We would therefore expect to see the presence of a network with many weak ties have more of an effect in the aggregate on opinion formation than on risky mass participation. Given network data, one can test these predictions by looking at the substantive effect of the aforementioned network characteristics on aggregate behavior in one's regression analysis.

As we can see, relational studies connect across several levels of analysis. Individual-level data on discussion partners or movement ties can be used both to make predictions on behavior at the individual level, and to form a picture of network structure at the aggregate level. These structures are in turn predictors of aggregate-level behavior (Siegel 2009). That networks link levels of analysis implies they can be fertile ground for new questions. If one found, for example, that weak ties tended to be determinative in individual opinion, but support for a

political party was strongest in regions in which few weak ties were present, this would suggest different causal mechanisms lie behind support for different parties, spurring further research.

A fair criticism of this approach is its data-intensiveness. This approach may translate well to industrialized democracies, but even years of careful study in areas in which security is more of an issue are unlikely to produce much more than group-level information (Petersen 2001). Without individual-level connectivity data, one cannot include connectivity as an individual-level variable in one's cross-national regression.

Network analysis, however, is flexible enough to produce additional insight even when data are comparatively poor. At the individual level, it may still be possible to discern the network of elite interconnectivity, given structured interactions within the halls of power. These data would provide for the same analysis as described earlier, though for an unrepresentative subset of the population. Given the influence of elites in these settings, though, the insight derived from this network analysis may very well be sufficient to make broad predictions in these cases.

At the aggregate level, one does not require knowledge of every tie in the network in order to know the general type of the network. Siegel (2009) offers four such types: Small World, Opinion Leader, Village, and Hierarchy. Differences in expected aggregate behavior can be discerned across these types, given knowledge only of the types themselves. Even when detailed network data are sparse, qualitative data on network type—for example, do opinion-leaders drive behavior, or is there more equality of influence across the network—can be employed to produce predictions. For example, Siegel (2010) provides an example using Patel's (2005) ethnographic data to postdict the outcome of the January 2005 Iraqi Legislative elections.

Thus, conditional on data availability and the level of analysis of the research question, network analysis and a relational approach to political science can not only produce useful and novel insights into comparative politics, but also allow for productive collaborations between qualitative and quantitative scholars, taking advantage of the techniques and insights of each. The remainder of this essay illustrates this point in a series of examples taken from core problems in comparative politics.

Civic Culture, Democracy, and Democratic Performance: The first example is one in which a persuasive case has already been made for the inclusion of relational factors: that of the role of civic culture in enabling democracy and in delivering favorable democratic performance (Gibson 2001). In seminal work, Putnam (1993) uses elite and mass surveys, detailed case studies, and historical analysis to posit that the difference in performance between the regional governments of northern and southern Italy lies in the superior degree of social capital present in the North.

This combination of quantitative and qualitative research, while raising additional questions (Tarrow 1996), provides an explanation for differences in democratic performance that generalizes. That is, given two otherwise identical cases, Putnam's theory implies that the case exhibiting the most social capital will possess the better democratic performance, regardless of the other properties of the case. This is a falsifiable claim that requires the efforts of both quantitative and qualitative scholars to test. And it yields spillover claims as well. Social capital is fundamentally a relational concept, and independent of the system of government in place. Presumably, systems exhibiting greater social capital will have an easier time democratizing, and will have more successful democratic transitions.

This claim too is testable, but requires understanding what the relevant networks for democratization are, which in turn requires understanding what causal path translates social capital to democratization. Do strong friendship ties build legitimacy for group decision-making? If so, networks driven by opinion-leaders should produce less of the relevant social capital. Or does social capital aid in coordination, smoothing the transition? If so, the opposite conclusion on opinion-leaders may be true. Regardless, a relational approach seems essential to understanding opinion formation in groups, implying that is also essential to understanding the development of civic culture and its role in promoting democracy.

Social Movements: A second area of comparative politics in which a relational approach has already been applied to positive effect is that of social movements. Participation in a movement is a frequently risky action that depends fundamentally on the behavior of others. Kuran (1991) and Lohmann (1994) describe two different causal pathways that lead to a strong role for interdependence in decision-making in determining whether or not participation in a social movement rises to a level sufficient to induce change in the government; they illustrate their theories with the Eastern European revolutions of 1989. Though these authors largely treat an individual's response to aggregate behavior, explicit consideration of social networks can be added to the core dynamic of their models. For instance, Siegel (2009, 2010) explores participation in costly collective actions within networks, both with and without the sort of repression nascent movements often elicit.

Without the inclusion of social networks, extant work often fails to provide strong causal pathways underlying aggregate behavior, and is potentially subject to selection bias (Siegel 2009). Including networks requires a combination of qualitative and quantitative approaches, as

seen in McAdam's (1988) study of Mississippi's Freedom Summer. Doing so, however, would let us address important questions such as the relationship between repression and dissent (c.f. Davenport 2007), which fundamentally relies on not only one's own response to repression, but also on one's response to relevant others' repression, and on one's response to others' responses.

Social Cleavages, Party Systems, and Civil Strife: Though very different substantively, literatures on the development of party systems and on the potential for civil strife both are predicated on the importance of the structure of the cleavages present in society. Parties are organizations intended to represent the interests of one or more segments of the population, distinguished by membership in one or more social cleavages, and strife occurs often across the boundaries of cleavages. Yet conceptions of individual identity, and the cleavages they spawn, are fluid and socially constructed; this includes even race, ethnicity, and gender (e.g., Smedley 2001; McCall and Dasgupta 2007). Relational approaches are thus a natural fit here, delineating the social pathways across which identity formation occurs (Block and Siegel 2008).

A better understanding of the social determinants of identity formation would endogenize the nature of the cleavages in society. In terms of party systems, not only would the relative sizes of identity groups affect which groups agglomerate into parties (Posner 2005), but party membership could feed back into identity choice, leading to variation in party strength over time. In terms of civil strife, group identity could shift with migratory patterns and the concomitant alteration in network structure, producing changes over time in the degree to which ethnic enclaves are differentiated from the dominant group, which in turn could produce different aggregate outcomes under persecution. For example, immigration might produce dispersed enclaves of a particular ethnic group. With insufficient numbers or ties to the local power

structure, the more successful immigrants will be those who forge new network connections to those outside their group, assimilating into the population. However, should immigration increase, more options are available. Assimilation could continue with perhaps more equal cultural exchange, or the ethnic group could be present in sufficient numbers to attain its own power base. This latter possibility would increase incentives for in-group social identification and differentiation from the dominant group. Which occurs will be a complex interplay of cultures and institutions that define the distribution of economic and political opportunities for the immigrants. The nature of individual relationships illustrates the significance of the social cleavages, which helps dictate the likelihood of civil strife in the aggregate.

Legislative Behavior and Government Formation: As a last example, consider networks encompassing a smaller set of individuals: those describing the connections and interactions between members of legislative bodies. In recent years, scholars have mapped out the networks connecting members of the American Congress, and have begun using these data to describe how the members of Congress introduce and pass legislation (Cho and Fowler 2010). While cosponsorship data of the sort used to create networks in Congress may not be as easily available in, for instance, parliamentary systems, this does not imply that other forms of networks are not in place, or that these networks do not play a role in legislative behavior. For example, if the elite in government tend to come from a small number of schools—Oxbridge in the UK, for example—friendship and associative networks may be discerned via qualitative analysis, and the network so constructed may be used in quantitative analysis of legislative effectiveness.

Parliamentary systems offer further opportunities for network analysis. The government formation process involves coalition building between parties representing a diverse set of

interests. With multiple parties in play, decision-making can be quite complicated. Among other things, in order to form the most beneficial coalitions, party leaders require information about the interests and the willingness to bargain of other parties' leaders. This information is likely to be differentially available across parties, and which information is accessible will depend in part on the prior interactions between the parties' leaders. Under this logic, both electoral and pre-electoral (Golder 2006) coalitions should be more likely to form between parties connected via prior network ties, all else equal. Discernment of prior networks requires qualitative analysis, but the prediction is falsifiable and can be tested quantitatively.

These four examples are only a sampling of ways in which a relational approach to comparative politics might prove useful in addressing core questions in the subfield. However, they do indicate the wealth of questions in comparative politics amenable to a relational approach, and provide new pathways for productive collaboration between scholars trained in qualitative and quantitative methodologies, and those studying behavior at the individual and the aggregate level Qualitative scholarship holds significant information on context, and this can be mined to elicit network connections, or at least network type. For instance, interviews that suggest most influence lies with a handful of individuals point to a potential Opinion Leader network, while those in which people refer largely only to members of their own group point to a potential Village network (Siegel 2009). At the same time, quantitative scholarship can use these relational data to draw conclusions across cases. Similarly, individual-level information on network ties can be used to develop and test aggregate-level hypotheses on the effect of network structure. This sort of cross-fertilization can only be a boon for the discipline.

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