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The political party as a network of cleavages: Disclosing the inner structure of Italian political parties in the seventies[†]

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ABSTRACT

Building on two established perspectives on the political party, in this paper we view the party as an organized network of formal and informal relationships between individuals that reflects national cleavages. We test this interpretation using two Italian parties of the 1970s that played major roles in shaping political and social life of the country: the Christian Democrats, or DC, and the Communists, or PCI. The 1970s saw the culmination of the DC and PCI's two-party dominance of the Italian state. Further, it was during this same period that the economic and social contradictions of Italy's tumultuous post-World War II process of industrialization became apparent, making social cleavages easy to grasp. We use cosponsoring of bills between parliamentary members as a measure of formal and informal relationships within each party. We deem this appropriate in the context of a pure proportional electoral system and highly polarized audiences. Data comes from the lower chamber of the Parliament during the Sixth Legislative cycle (1972–1977). We use HLM to model dyadic interactions between MPs and distinguish between repeated cosponsoring of bills (strong ties) and single occurrences of cosponsoring (weak ties). Our results show that within each party, national cleavages significantly increased the likelihood of strong ties but were not relevant in structuring weak ties. We conclude that the party has an internal structure made of a network of MPs informed by external social cleavages and held together by the common goal of being reelected.

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In recent years political scientists and sociologists have developed a novel approach to the political party that has focused attention on relationships between party members and several external actors - donors, corporate officials, citizens - and between political action committees (PACs) and incumbents, trade associations, and local governments. From this perspective, the party's internal structure is seen as a network linking party members and external actors, blurring the boundaries between the organization and its surroundings. This interpretation of the party differs significantly from an established research tradition that has instead viewed the party as a byproduct of historical national cleavages. From this perspective, scholars have investigated how well and steadily a party reflects its external social origins and to what degree it is capable of connecting and responding to its electorate. When seen as a mediating agency arising from deep and stable cleavages, the party is a bounded entity (of party members) that represents some segment of society defined by society-wide

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cleavages. In this paper we maintain the focus on the party's network structure but we relate it to the cleavages that organize the larger society as well as to the member's relationships with specific non-party actors. Our goal is to create a novel analytical approach to network analyses of the party.

We think that relating the party network to the cleavage structure of a society is relevant because doing so makes it possible to model how the party changes under different historical circumstances. There is no such a thing as "the party." Instead there is an historically determined actor called a party whose network organization is constrained by the part of the larger society that the party represents. With respect to Vladimir Key's tripartition of a party (1966) - one part in the organization, one part in the electorate, and one part in the government - we look at the party as an organization divided into a system of subunits (Sartori, 1976) comprised of individuals linked to each other while embedded in an society shaped by cleavages (Mair, 2006). We are not interested in modeling the party's relationship with the electorate nor in the party's position in the government. Instead, our goal is to create an integrated approach capable of bringing together the insights from the cleavage-based view in interpreting the party's internal structure.

We test our perspective on the party using empirical data taken from the cosponsoring of legislative bills during one cycle of the

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Italian Parliament in the mid-seventies. We think of cosponsoring as an appropriate dependent variable for capturing formal and informal relationships – the real party structure rather than organization chart as Mildred Schwartz noted (1994) – among Members of the Parliament (MPs) in a political arena that was highly polarized and fragmented (Sartori, 1976) and where MPs were elected through a pure proportional system (Pasquino, 1975; Galli, 1976).

We focused our attention on the two major parties of the period - the Christian Democrats, or DC, and the Communists, or PCI although we kept all the other parties in the analysis. The DC was able to maintain a predominant position as the party of relative majority for over 40 years, starting with the first national elections in 1948, despite a never-ending conflict between its internal factions (Poggi, 1968; Galli, 1978; Leonardi, 1982; Pasquino, 1975, 2009; Lapalombara, 1965). The PCI was one of the largest, most important, and intellectually dynamic communist parties in the Western world (Poggi, 1968; Kertzer, 1996; Allum, 1970; Tarrow, 1967; Mammarella, 1976). Though it never won an election nor captured the position of Prime Minister or President of the Republic, the PCI was a central political actor that supported the government on some key issues and that was able to serve as a member of national solidarity government in moments of national crisis (Pasquino, 1975).

Scholars of Italian politics have studied the two parties mostly from a cleavage-based approach. From this perspective, the DC and PCI reflected the profound political, economic, and social cleavages blended with deep-seated historical divisions between different regions of the country. Fewer scholars, mostly Italians, have instead adopted an implicit network approach in studying how the two parties operated locally. Bagnasco (1977), for example, documented how the DC used its political machine to maintain power in a local town in central Italy while instrumentally using the connections between local politicians and central members of the DC to divert money from the central government to the town. Similarly, the organic relationships between local sections of the PCI and agricultural cooperatives in Southern Italy have been subjected to considerable scrutiny (Caciagli and Belloni, 1981).

This paper maintains the focus on the internal functioning of the party, but it does so by moving the analysis to the national level. The period of observation took place during the Sixth Legislative cycle of the Italian Parliament, from 1972 to 1977, a turning point in Italian contemporary history. This period represents the point of maximum power and influence for the DC and PCI. While the DC had more than 1.8 million members in 1974, the PCI had roughly 1.7 million (Galli, 1978, 1976). Italian parties enjoyed almost complete control of the state bureaucracy and heavily conditioned the country's economy (Pasquino, 2009). Notwithstanding the economic and social transformations of the period, i.e., the shift toward post-materialist values and the change in the mass production model (Inglehart, 1977; Piore and Sabel, 1984), the two parties still reflected the main cleavages from which they had originated (Knutsen, 1988).

In the first section of this paper we present in greater detail the two analytical perspectives from which the party has been investigated. This serves as a background for our core hypothesis that the party's internal structure is a network organized by the social cleavages that shape the larger society. The data section follows with a macro picture of Italy and Italian parties in the period considered, along with data description and data analyses. We conclude the article with a discussion of our findings.

1. Two perspectives on the party

Since Lipset's seminal work (Lipset, 1960), cleavage, i.e., a deepseated division within a society, has been a central organizing concept for understanding parties. According to him, cleavages give birth to parties and delineate the party's social base. Lipset and Rokkan (1967) compared Western European democracies and highlighted four main lines of cleavage: (1) Center–Periphery, (2) State–Church, (3) Land–Industry, and (4) Owner–Worker. These cleavages resulted from both the nation-state revolution and the industrial revolution, and were brought into politics in the form of political parties. Once they had frozen into parties, furthermore, the original cleavages persisted over time so that the social divisions of the '60s and '70s much resembled those of the '20s.

Partially criticizing this approach for its failure to capture the changes that occurred in the '70s, sociologists Inglehart (1977) and Scott Flanagan (Inglehart and Flanagan, 1987) stressed instead the role of changing values, from modern to post-materialist. They argued for a new libertarian-authoritarian dimension to account for party transformation and electoral realignment and volatility. The party still had a defined social base, but cleavages might bisect each other in changing the electoral alignment over time. Thus, in the work of Inglehart and his collaborators, cleavages switched from representing broader social structures to becoming divisions in belief systems. This shift made the party less dependent on the historical and political trajectory of a given country while at the same time maintaining the analytical focus on the party's connection to society.

Against this background, the work of Mildred Schwartz in the '90s (re)focused attention on the internal structure of the party and, in particular, its formal and informal networks. According to Schwartz, the idea of a network is "both a descriptive conception of the party and an analytical tool for elaborating the consequences of having different participants in positions and groups" making up the party (1990:10). Sometimes called the party matrix, other times referred to as the extended view of the party, the fundamental tenet of this perspective is that the party structure is made of several actors – some operating inside the party, others operating outside of it – that form coalitions of interests. The goal common to all of these coalitions is to achieve control of the party and to win office.

Thus, Bedlington and Malbin (2003) analyze the growing importance PACs and party committees' contributions in closely contested races throughout the United States. They highlight the fact that the party can no longer be seen as a structured institution with power and resources flowing from the top down. Power and resources instead originate from different nodes within the party, so that the party's internal structure resembles a network. Koger et al. (2010) show that the party's network is made of relationships that are in part conflicting and in part cooperative. For example, they analyze the tense leadership battle that took place in 2002 between Nancy Pelosi of California and Harold Ford of Tennessee for control of the House of Representatives. It is significant that Koger et al. refer to conflicts between different power centers within the party as "intraparty cleavages."

John Levi Martin has also employed a network perspective to document the rise of national parties in America (2009), but to answer a fundamentally different question: How did basic structures concatenate in time to form the modern party? According to Martin, the basic structure of the modern party is represented by a "tree" made of patron–client relationships (hierarchy) that historically mashed with horizontal relationships informed by a shared ideology. This argument is similar to Peter Bearman's study of the formation of an English national elite in the seventeenth century (1993). In both cases, the party is a network made of relationships hierarchically organized within localities, joined by more egalitarian relationships spanning separate localities.

In the historical approaches of Martin and Bearman, the party's internal structure is a collection of politicized patron-client subunits. From this perspective, the party is a hierarchically organized

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system of internal relationships, where those at the top hold power and influence. However, in the perspective articulated by Schwartz, power is seen more as a medium that circulates through the different coalitions within the party, creating a flatter, web-like structure compared to that of Martin and Bearman. We find the interpretation of power as a binding medium that circulates inside the party's multiple centers more accurate for describing contemporary politics in Western democracies and therefore retain it in our research hypothesis.

2. Research hypothesis: the party as a network shaped by cleavages

In order to relate social cleavages to the network inside the party, we follow Peter Mair's synthesis of Lipset's and Inglehart's work (Mair, 2006; Bartolini and Mair, 1990). According to Mair, a cleavage is a social, religious, ethnic, or regional division associated with a specific system of values (or an identity) that finds its political expression through some type of organization (e.g., a party, a trade union, or a church). In these terms, social structure, social values, and social organization are the key characteristics of a cleavage. This makes it possible to retain the emphasis on the social basis of the party and, at the same time, account for group characteristics and for the multiple affiliations and individual variations that characterize the behavior of party members.

Identifying the structure of the party means focusing at the level of relationships that connect its members to each other rather than at the level of relationships among parties or between a party and the electorate. Structure - that is to say, the party skeleton - is intended à la Coleman (1975) as a peculiar configuration of social relations among individuals. This arrangement of parts (as Coleman, Robert K. Merton, and George Homans would argue) informs both people's purposes - interests or sentiments - and the objective conditions, that is, who has control over other people's actions. More specifically, the combination of social categories (language, religion, work) identifies the party members and produces a shared sense of identity (Catholics, blue-collar workers, etc.) that shapes the purpose and the condition of their actions. These shared identities reflect the cleavages active in the larger society and create coalitions of interests within the network of relationships that connects the party members.

This interpretation of the networked structure of the party is compatible with Jeffrey Pfeffer and Richard Salancik's organizational approach to party (1978). Following Max Weber's argument that parties were made of groups of people competing for the political control of bureaucratic structures (1948), Pfeffer and Salancik defined a party as a coalition of interests organized in subunits that sometimes competed and sometimes cooperated, but were nevertheless tied together by a set of loosely coupled relationships. Furthermore, as Scott (1998) puts it, loose coupling lowers the reciprocal level of interdependence among the parts of an organization, creating an advantage for organizations operating in segmented environments. Indeed, empirical data show that the Italian national arena of the 1970s was an environment deeply divided by territorially shaped social cleavages (Agnew, 2002). The concept of loose coupling can be applied to explain the party members' efforts to represent a diverse electorate (Schwartz, 1990) and, at the same time, create a stronger ideological basis to enhance the party's internal coherence, a dynamic particularly pronounced in leftist parties (Kitschelt, 1992).

In light of all of this, our research hypothesis is that, independently of the structuring of political opinions (Klosfad et al., 2010), the party's base is reflected within the party in the network of relationships among party members. A party is a network of individuals bound together in a specific organizational setting that

incorporates, encapsulates, and (at least partially) reproduces relevant cleavages outside of the party in the form of coalitions inside the party. Relationships within the party are constrained by opposing demands – competition to control the party and cooperation to win office against other parties.

Thus, we hypothesize the party structure as constituting two levels: one deeper, connecting MPs expressing and reproducing the external cleavages, and one more superficial, connecting MPs of the same party but across cleavages. The following analysis illustrates in detail how we tested our hypothesis using data on the two major Italian parties of the 1970s—the DC and the PCI.¹

3. The case

As stated earlier, the DC and the PCI in the 1970s present good cases for testing our hypothesis of the party as a network organized by cleavages. To start with, both parties were at that time large and well-established organizations, each drawing upon a heterogeneous social base that was nonetheless distinguishable from the other. Thus, the DC and PCI have been studied mainly as examples of a cleavage-based perspective.²

The modernization efforts undertaken by Italy beginning in the mid-1950s did not coincide with greater social integration and – perhaps more relevant for our argument – did not proceed homogeneously throughout the country (Ginsborg, 2003). Thus, in contrast to an industrialized North, a largely impoverished and agricultural-based economy continued to exist in the South. While in the northern regions of the country, politics came to be dominated by tensions between workers and capitalists, politics in the South remained anchored to traditional practices of patronage that organized the relationships between a small elite of land owners and a large mass of peasants.

Almost a century of territorially uneven modernization formed the historical backdrop for our case, and by the 1970s a new economic, social, and political division had emerged in Italy. As a reaction to the economic shocks characteristic of this period, a large process of decentralization led to the emergence of a specific economic and social production model, the Terza Italia, or Third Italy, in the Central and Northeastern regions of the country (Bagnasco, 1977; Becattini, 2004). In turn, decentralization gave birth to a process of economic expansion that stimulated the growth of small businesses, most of which organized themselves into industrial districts of highly flexible and integrated small firms (Saxenian, 1994). Trigilia (1986) coined the expression "big parties and small firms" to identify the unique intertwining of social, economic, and political traits that characterized Third Italy. Trigilia's expression referred to the special historical, social, and cultural characteristics of those territories able to produce positive synergies between capital and labor, politics and society, and local administration and citizens, all subsumed by and linked to one single overarching party. The areas of Central and Northeastern Italy stood in opposition not just to the agricultural South (Second Italy) but also to the heavy industry of the Northwestern regions (First Italy).

By the end of the 1970s, the macro-regions of Italy (Northeast, Northwest, Center, and South) therefore represented geographical aggregates that differed not only in their economic bases, but also in their social and political characteristics: prevalence of small entrepreneurs or blue-collar workers and farmers; Catholic or communist subcultures; small or big land owners; urban

¹ Analysis run on the other four major Italian parties (PSI, PLI, PRI, MSI) showed results consistent with our hypothesis.

² An equally important analytical perspective on Italian parties stressed instead their organizational characteristics and their relationships with each (Panebianco, 1988; Sartori, 1976).

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agglomeration or small-scale cities. As John Agnew pointed out

4. Description

agglomeration or small-scale cities. As John Agnew pointed out (2002), the Italian case ideally represents the importance of geography in understanding political behavior. The table below follows Agnew's argument and explicitly maps social cleavages to geographical areas. Assigning cleavages to geographical regions required superseding important intraregional differences. While the social, political and economic reality of the country was not as clean-cut as the table below suggests, we think that our typology captures in a stylized format the salient divisions of Italy at the time.

We coded the South to be at the periphery of the dominant political culture of the time, similar to the still emergent economic model of the Northeast. These two macro regions were also on the same side of the Church-State division because both had extensive and deep Catholic roots (Trigilia, 1981). Despite the similar economic model to the Northeast, the Center had a long tradition of nonreligious civic society and had, along with the economically dominant Northwest, supplied the main political leaders of the country since World War II.

3.1. The parties

This history, geography, and pattern of economic development found its reflection in the Italian parties' formation and internal life. The two biggest and most consequential parties, the DC and PCI, cut transversely across the divisions of the country, bringing together different regions, economic models, and social differences. Each of the two parties organized a full vision of Italian society in opposition to the other. The DC and PCI represented two different worlds, ideologically far apart, geographically clustered in different areas, and socially diverse. They also had distinct origins: the first as a manifestation of the will of the Vatican State, the second as a consequence of the industrial revolution and the emergence of a working class in Western Europe. Traditionally, the DC came to represent the bourgeoisie and middle class (mostly in the South) while the PCI was the standard-bearer of the working class (especially in the Northwest). However, the political sympathies of Third Italy diverged from this geographical and class-based alignment in the other two areas of the country, producing a local, strong, and interclass communist subculture in Emilia-Romagna and Tuscany (Center, in the division that we employ in this paper) and a Catholic one in Veneto (Northeast) (Trigilia, 1981).

Both parties were able to mediate all these (contrasting) characteristics of Italian society, containing the inner conflict among leaders in search for power. The PCI imposed a sound and effective party discipline, the so-called "democratic centralization," that was instrumental in rallying the grassroots and MPs around party's leaders, such as Palmiro Togliatti in the 1950s and Enrico Berlinguer in the 1970s. The DC had a lesser hold on its members and MPs, who were known for their internal power struggles. Usually, factions and leaders identified by region, and divisions were most evident at the party's annual congress when the organization chose officers. After Alcide De Gasperi's undisputed leadership in the 1950s, Antonio Gava, Ciriaco De Mita, Giulio Andreotti, and Aldo Moro - among others – were the big names running factions. Differently from the U.S., battles within the party power centers did not happen in open sessions of Parliament, but rather backstage, at the annual party's congresses and even at regional party congresses.

By the mid-seventies, the nation's economic development had reached its apex, transforming Italy from a poor agricultural country into one of the richest in the world. Yet, this process occurred along a clear territorial axis, largely exacerbating the preexisting differences between macro regions of the country. This is the kaleidoscopic context within which we chose these peculiar parties to study as networks.

4. Description of the data

In light of the significance of this period – both materially and symbolically - we chose one particular session of the Italian Parliament, 1972–1976. It was in the mid-seventies that the struggle between the two major parties grew especially pitched, bloody (Pasquino, 2009), and ideologically polarized. In addition, during this period the DC and PCI registered their best electoral results, with the PCI in particular emerging as a steadily rising force. The possibility that the Communists could win the majority and form a government was no longer far-fetched, spurring panic on one side and exaltation on the other. Given the limits that a national single study carries and might therefore impose, Italian parties in the '70s approach an extreme case scenario for studying the role of cleavages and network. The limits of just one case can then be used in a "grounded theory" fashion to generate insights whose validity would require further testing on several different cases (Stinchcombe, 2005). The larger aim of this paper is to create a novel theoretical approach to the party as network using data from the Italian case. We will come back to this point at the end of the paper, in Section 8.

We used the cosponsored bills by Members of Parliament (MPs) during one session (1972-1976) as a proxy for the party's internal structure. We agree with Schwartz (1994) that informal and formal relationships among a party's actors constitute the party's structure. Cosponsoring activity in the post-World War II Italian Parliament captures both types of relationships,³ in that cosponsorship was both an institutionalized process similar to formal processes of other legislative bodies (Schickler, 2001), and a reflection of the strength of informal coalitions of MPs. In a political arena shaped by high electoral polarization and a proportional electoral system, coalitions of MPs formed on the basis of specific interests and against others. In such a context, cosponsoring becomes mainly a tool for building coalitions aimed at increasing the control of a party or of government, rather than a tool for increasing the chances of passing a new law, as it is the case in majoritarian electoral systems and less polarized audiences (for the relevance of electoral laws in structuring the working of a national polity, see also Parigi and Bearman, 2008). In a proportional electoral system, especially for oppositional and small radical parties, proposing and cosponsoring a law was the preferred tool for making claims relevance to the electorate. MPs showed their political activisms and relevance by proposing and cosponsoring bills.

This perspective on cosponsoring explains two striking characteristics of the Italian Parliament. First, that the majority of the bills in the Italian Parliament were cosponsored: the average number of MPs per bill is 7 (s.d. 10) and only 30% of the bills have just one sponsor. Second, that Italian MPs produced many bills, as the figure below suggests:

The figure reports the number of bills by the number of MPs that signed them (sponsor and cosponsors together). The first column indicates that 50 MPs (7%) signed, either as sponsors or cosponsors, one bill at the most during the legislative cycle. Conversely, 93% of MPs signed two or more bills. The upper caption of Fig. 1 displays the cosponsoring distribution on a log–log scale. A power law distribution for the tail of the distribution (the scale-free region) fits the data well – alpha = 1.259 with 95% c.i. 1.063-1.48 – suggesting

³ Our analysis focuses only on the top echelon of party members, the MPs, ignoring the larger number of actors and intermediate-level officers that formed the party's internal structure. Yet, despite the obvious limitations, we are convinced that our data captures a fundamental aspect of the party's internal structure: the pattern of collaborations among the party's influential members, the MPs, in the most relevant institutional setting, the Parliament. If a party is politically significant, it is at the very least a group of individuals interacting in a country's legislative body.

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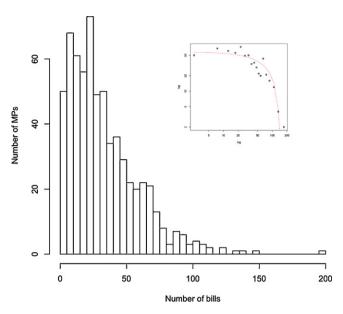


Fig. 1. Number of bills by MPs.

that the Italian Parliament had a group of highly active MPs that worked on many bills. This hyperactivity was nothing new; the Italian Parliament had promulgated more laws since the end of World War II than any other Western parliament—an impressive 8010 new laws from 1948 to 1972. The Sixth Legislature simply continued this trend.

In synthesis, Italian MPs collaborated a lot and wrote bills with many other MPs. Furthermore, despite masterminding many proposals, prominent national leaders rarely attached their names to bills as sponsors (Di Palma, 1977). In this respect, Italian MPs behaved very differently from their US counterparts, who instead use cosponsoring to augment the chances that the bill's ultimate approval will generate visibility for the congressperson (Fowler, 2006). For all these reasons, the figure above does not distinguish between sponsors and cosponsors. Throughout the text we use the term *cosponsors* to freely indicate the sponsor and the number of MPs that signed the bill.

For scholars of Italian politics, this image of the Italian Parliament as a very active legislative body is quite familiar. Italian political scientists call the tendency to over-legislate the "production of small laws." These "small laws" usually deal with administrative problems concerning specific territories involving several policymakers (Cazzola, 1974; Predieri, 1975). Yet, most of this literature is firmly rooted either in political science, and thus tends to consider the production of "small laws" as a dysfunction of the Italian Parliament (Capano and Giuliani, 2001; Giuliani, 1997; Capano and Vignati, 2008; Lijphart, 1968, 1984), or else in political sociology, and thus relates the "small laws" only to local phenomena, missing a more holistic image of the process (Capano and Vignati, 2008). Our network approach has the potential to help overcome both of these limitations.

We considered all the bills introduced on the floor of the lower chamber of the Italian Parliament (Camera dei Deputati) from 1972 to 1976—the Sixth Legislature since the establishment of the Republic in 1948. We collected the data by systematically querying the website http://legislature.camera.it. The dataset comprises all 3314 bills that 646 MPs sponsored either individually or in collaboration during this time period. We know for each bill the name of its sponsor (the first signer of the bill, in the institutional language of the Italian Parliament) and of the other cosponsors. We also know the day when the bill was introduced. With respect to the MPs, we have data on their educational background, their profession,

the geographical district they represented, their party membership, and their age. 4

MPs belonged to seven parties and one parliamentary group. The latter was made up of people elected either as independents or under the auspices of a party who subsequently decided to become politically independent. This group (MISTO) had 9 members. For the purposes of our analysis, we refer to the parliamentary group as a party. The largest party was the DC with 264 MPs, followed by the PCI with 184 MPs and the Socialist Party (PSI) with 62 MPs. These three had been the main parties in Italy since the establishment of the Republic in 1948.

5. Relationships within the party

We used the information about cosponsoring to create a network in which MPs are nodes and the bills that MPs cosponsored are the edges that unite them (see Appendix for further details on how we generated such a network). Analyzing this network could be problematic, however, because of the induced connectivity created by bills with a superabundance of cosponsors. These "long bills", i.e., bills with many cosponsors, could be those introduced in response to emergency situations, for instance, and including them in the analysis might artificially mask the existence of political cleavages. If this were the case, the removal of long bills should create a more realistic image of MPs' relationships both within party and between parties.

We followed a conservative strategy and considered only those bills with a number of cosponsors less than or equal to the grand average length of the bills, i.e., 7 MPs. This strategy created several isolates but, more interestingly, left 544 MPs in one large component. Such a network accounts for the basis of our analysis.

In this figure, nodes have three colors: white for DC MPs, black for PCI MPs, and gray for MPs of other parties. If two MPs collaborated more than once, we show only one tie between them but we retrieve the information about how many times they collaborated. Visual inspection of the figure above indicates the presence of clusters. On the top center side of the figure, MPs from the DC formed a clear cluster that shared however many edges with other parties. These parties were to a large extent those with which the DC entered into coalitions to form governments during the Sixth Legislature. More telling is the fact that Communist MPs cosponsored bills with several other parties, including the DC, despite the fact that the PCI never belonged to any government coalitions during this legislature. Finally, MPs from the Fascist MSI party were the most cohesive group: they almost exclusively collaborated among themselves and created a separate cluster (top right corner of Fig. 2).

The presence of one large component spanning across several parties represents a challenge to our argument that cosponsoring is a good measure of formal and informal coalitions *within* each party. It may be the case that the large component of Fig. 2 is the result of political processes occurring externally to each party, rather than inside of them. Furthermore, this image of cosponsoring activity shaped by relationships external to the party is consistent with research done on the workings of the Italian Parliament. This research indicates that while agreement across parties was rare on the floor of the Parliament, it was far more common among MPs of different parties working in the same committee (Di Palma, 1977; Capano and Giuliani, 2001).⁵

⁴ We did not consider gender to be a relevant variable because there were only a handful of women in the Parliament during the Sixth Legislature.

⁵ Limitations of this scholarship include the fact that it was not systematically carried over to all Parliamentary committees and that it focused mostly on the approval of new laws, rather than on cosponsoring.

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Fig. 2. One-mode projected network of MPs.

Table 1 Mapping of cleavages to regions.

North East	Periphery	Church	Owners	Industry	Rural
North West	Centre	State	Workers	Industry	Urban
Center	Centre	State	Owners	Industry	Urban
South	Periphery	Church	Workers	Land	Rural

The possibility that MPs often crossed party lines to collaborate on the basis of personal interests is also consistent with the political history of the country. Observers of Italian politics have labeled this phenomenon *trasformismo*⁶ to indicate a deep discrepancy between the public statements of MPs infused with political ideology and their concrete actions on the floor of the Parliament informed by personal or sectorial interests. The large component of Fig. 2 is consistent with this long-standing image of the Italian Parliament.

Against this background and in order to test the validity of our decision to relate cosponsoring to the internal dynamics of the party, we compared the observed percentage of cosponsoring that occurred within the party with the percentage that resulted from a random re-wiring of the network in Fig. 2. We re-wired the nodes by holding constant the probabilities of within party and between parties cosponsoring for each of the eight parties.

We repeated the re-wiring strategy detailed above 100 times and averaged the results for the proportion of within party ties for each of the eight parties. These results are reported in the second row of Table 2 (along with standard errors) while the observed values are in the first row. The table suggests that the party remained the key dimension informing the patterns of cosponsoring for all cases. The simulation produced significantly lower estimates for within party collaboration, indicating that group size and external collaboration cannot explain the observed patterns that produced the network of Fig. 2. This reinforces our decision to consider cosponsoring as an indicator for the internal dynamics of a party.

While the simulation results point toward the importance of the party for understanding cosponsoring, the observed proportions (first row in Table 2) reveal some significant differences between parties. Somewhat surprisingly, party boundaries were more salient for Christian Democrats than they were for Communist MPs (80% of within party ties versus 60%). Among the smaller parties, the MSI clearly stood out as the most inward looking party: the MPs of this party cosponsored almost exclusively with fellow fascists. In contrast, MPs of the other smaller parties formed many ties externally. This behavior can be explained when one considers that the DC always entered into government in coalition with other parties. That is, the small parties (with the exclusion of the MSI) operated similarly to satellites of the DC—necessary companions for governing with little autonomy (see also Appendix for further tests on this point).

In sum, at least for the two major parties, the quantitative evidence supports our decision to consider cosponsoring as mainly a within-party activity. In contrast, cosponsorship by MPs of a small party had more to do with those parties' roles in coalition governments than with those parties themselves. As Giovanni Sartori once noted, in Italy parties are weighed rather than counted (1990). Sartori's insight captures the dynamic of a party system dominated by the two "heavy" parties—the DC and the PCI. In this vane and considering the evidence from our data, it is with little theoretical loss that we focus the remaining part of the paper on the networks of the two major parties: the DC and the PCI.

6. Social cleavages and cosponsoring

Our hypothesis – that the party's internal structure is a network held together and shaped by the cleavages active in a country implies that the clusters of collaborations among MPs within each of the two parties (DC and PCI) reflected the cleavages that divided Italy at the time. We captured social cleavages independently from party affiliation using the MPs' electoral districts (see Table 1). The dyadic collaboration between MPs became our main unit of analysis. A dyad occurred within each of the two parties if both MPs were from the same party. Within each dyad, we determined the sides of the social cleavages from which the two MPs came. For example, suppose that dyad 345 was made up of two MPs from the same side of the Land-Industry cleavage. We coded this cleavage as "L-I "and we assigned each MPs of dyad 345 to "Land" by coding them as "L-I1_Land" and "L-I2_Land", meaning that both MPs were from primarily agricultural districts. We repeated this procedure for all the cleavages and for all the dyads. We used multiple correspondence analysis (MCA) to detect patterns relating party to social cleavages. The results are graphically displayed in the figure

In the figure, explanatory variables have labels whereas the small light blue dots represent the dyads (rows). The first thing to notice is that the dyads are split clearly in the four quadrants. The figure plots only the first two axes. These axes explain 77% of the inertia, i.e., of the total Chi-Square. This suggests that our reduction of the Eigen-space to two dimensions is good but not excellent. Moving toward interpreting the results, the column profiles that are most distant on the horizontal axis are those of Land (right quadrant) and Industry (left quadrant). MPs of both parties sorted themselves out strongly in the basis of this cleavage. The vertical axis presents a more complicated image. The most distant cluster of profiles from the other column profiles is made by one member of the dyad being an owner (O-W2_Owners, on the Owner-Worker cleavage) and the other is either on the side Periphery (of the Center-Periphery cleavage, i.e., C-P) or on the side Church (of the Church-State cleavage, Ch-S). In other words, the vertical axis cuts through several cleavages at once making its interpretation difficult.

It is, however, easy to understand why the vertical axis splits multiple cleavages within each dyad. Two MPs that are "Owners", i.e., they come from the same side of the Owner-Industry

⁶ Trasformismo refers to a political practice whereby members of the Parliament switch alliances in order to maintain power. This was common practice in the Italian Parliament following Italian Unification in 1861 up until Mussolini's ascension in the early Twenty's.

⁷ We thank the anonymous reviewer 2 for suggesting this strategy.

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Table 2 Proportions of within party ties.

	DC	MISTO	MSI	PCI	PLI	PRI	PSDI	PSI
Observed	.81	.29	.97	.6	.39	.17	.31	.52
Simulated	.45 [.013]	.01 [.003]	.12 [.009]	.2 [.01]	.03 [.003]	.02 [.003]	.05 [.006]	.11 [.009]

Simulated averages for 100 random networks. Standard deviations in parenthesis.

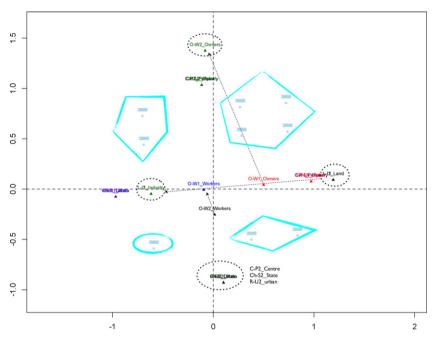


Fig. 3. Multiple correspondence analysis.

cleavage, have distant profiles (look at the position of O-W1_Owners and O-W2_Owners in Fig. 3). On the other hand "Workers" have very close profiles. Thus, while the Land-Industry cleavage strongly effects the network structure inside the two parties, one pole of the Owner-Industry cleavage only weakly effect the networks with the result of splitting across the other cleavages along the vertical dimension of Fig. 3. We think that the main reason for the more cohesive behavior of MPs from the side "Workers" vis-à-vis MPs from the side "Owners" relate strongly with the fact that the PCI was a more centralized party than the DC and that the main social basis of the PCI was made of workers. To better capture the complex relationship between cleavages and networks inside the two parties, we model them using a hierarchical linear approach.

7. The party's internal structure as a network

While interesting, the previous analysis has little explanatory power beyond the suggestion that cleavages played a different role within the two parties. In order to directly validate this finding – and more broadly, in order to test the hypothesis that social cleavages shaped the party's internal structure – we maintained the focus on dyads and used a hierarchical linear model. We made the assumption that one-time-only collaborations were qualitatively different from multiple-time collaborations. Consequently, we dichotomized ties as either weak (one collaboration only) or strong (more than one collaboration). The number of bills two MPs cosponsored became our dependent variable (Y). The network had 3521 weak ties (one collaboration only) and 1554 ties of greater strength (more than one collaboration). Because we thought that the number of cosponsored bills captured the strength of the

relationship between MPs, the two types of ties represent two different social processes that we analyzed separately.⁸

7.1. Modeling strong ties

We used a hierarchical linear model with observations nested in dyads to estimate the strength of the relationship between two MPs. In order to estimate the model, we floored weak-tie dyads to 0 and analyzed them later. Thus, Y = 1 meant that the two MPs collaborated once above their initial (weak) collaboration; Y = 2 meant that MPs collaborated twice above their initial collaboration, etc.

Table 3 provides the covariates for each level of the analysis—the individual MP variables (level 1) and the dyad variables (level 2). Strong relationships represent 30% of all the ties in the largest component. Because we care about the impact of social cleavages on the party's internal structure, rather than about the specific direction of this impact given a cleavage profile, we decided to focus on whether or not MPs were on the same side of the division. This approach made the model easier to estimate and interpret. We used the consolidated division in macro regions to capture how social cleavages

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⁸ We looked at the distribution of proposals by dyads and within each party to evaluate the consistency of our decision to use two bills as the threshold for distinguishing ties. For the case in which at least one member was a Christian Democrats, 72% of all dyads were weak in the sense that the two members cosponsored one bill only while 15% sponsored two bills. We found the same skewed distribution for the PCI: 85% of weak dyads and 11% of dyads with two bills. Considering all the parties in our data, the average number of weak dyads is 71% and the average number of dyads with two bills is 12%. We feel reasonably confident that the threshold between cosponsoring one bill and cosponsoring two is a natural threshold and it is not an artifact of the size of the parties. We thank the anonymous reviewer 1 for suggesting this robustness check.

Table 3 Strong ties network, descriptive statistics.

Variable	N
Number of strong ties	1554
Level 1:	
MP has at least a bachelor degree: Yes	484
MP was a member of:	
DC	245
MISTO	9
MSI	58
PCI	110
PLI	20
PRI	14
PSDI	28
Level 2:	
Number of dyads	5075
Number of edges with 2 MPs of same region	1171

stacked on each other following Table 1 (see above). Relationships between two MPs of the same region make up approximately 1/5 of the entire network and, finally, out of a total of 544 MPs in the largest component, almost 90% of them have at least a bachelor's degree. The dependent variable is the number of strong ties for each MP (average: .8, variance: 2.53).

Since the dependent is a count variable we used an overdispersed Poisson model to account for the observed difference between the mean and the standard deviation of Y. We used the routine "quasipoisson" from the generalized linear model in R2.7.2 to estimate the following hierarchical model:

$$y_i = \text{Overdispersed Poisson}(e^{\alpha_{j[i]} + X_i \beta + e_i}, \omega)$$
 (1)

with, ω is the overdispersion parameter and Poisson: $P(Y=k) = e^{\lambda} \lambda^k / k!$, the standard link function.

The hierarchical model had two levels: an individual level, "i" (level 1) and a dyad level, "i" (level 2). In Eq. (1), the matrix X includes all the independent variables at level 1 presented in Table 1, without the intercept. The intercept is instead allowed to vary at level 2 along with the dummy variable "Same Region" that indicates whether both MPs in the dyad come from the same region, that is, from the same side of the social cleavages. More precisely, the equation for predicting level 2 is the following:

Level 2 (between dyads)
$$\alpha_i = \gamma_0 + \gamma_1 \text{Same Region}_i + u_i$$
 (2)

Table 4 presents the results of the Poisson model ("Imer" routine in R2.7.2). The estimates for the Random Effects show the variance and the standard deviations in parentheses. Standard errors are instead shown in the Fixed Effects part of Table 2:

Focusing on the fixed effects first, all coefficients for party are highly significant with the exception of MISTO. This last was a group of MPs unaffiliated with a party and thus its non-significance in the model above is expected. Model 1 shows that the average rate of repeated collaboration between MPs is exp(-2.91), or 5%. Moving down the table to the random effects, Model 1 shows that more than 70% of the extra variance at the dyadic level occurs when both MPs are elected from the same region compared to when MPs are from different regions: (.103 + .313) - (.103)/(.103 + .313 +.012) – .73. The magnitude of this variance largely decreases in Model 2, when the individual level effect of education is taken into account. Finally, Model 3 indicates that the party affiliation of MPs within the dyad has a high explicative power in predicting the likelihood of strong ties. Nevertheless, "Same Region" accounts for 26% of the extra variance compared to MPs of different regions, suggesting that geography plays an important role in explaining repeated collaborations (significant log likelihood ratio). Note also the large standard deviation (.28) compared to the variance estimate, indicating that individual level predictors have a stronger effect in

Predicting strong ties (over dispersed Poisson mixed model).

	Model 1	Model 2	Model 3
Fixed effects: intercept Less than Bachelor Degree	-2.91 (.054)	-2.91** (.054) .014* (.004)	-1.47** (.013) .013* (.004)
Party: DC			-1.39** (.016)
MISTO			029 (.031)
PCI			-2.2** (.026)
PLI			-902** (.026)
PRI			-1.27** (.026)
PSDI			-1.42** (.023)
PSI			-1.33** (.02)
Random effects: intercept	.103 (.318)	.101 (.318)	.094 (.306)
Same region	.313 (.559)	.061 (.247)	.081 (.285)
Residual	.012 (.112)	.012 (.112)	.013 (.116)
AIC BIC LogLik X ²	9572 9601 -4782	9574 9610 -4782 .102	9447 9533 -4711 141.64**

Standard errors in parenthesis.

predicting patterns of co-sponsoring among MPs compared to the level 2 variables.

The coefficients for parties are all negative in Model 3. This is because we designated MSI - the most cohesive of all the parties in our analysis - as the reference category. Focusing on the two main parties, the DC and the PCI, we note that the rate of collaboration differs between them. In particular, party membership was more salient in the case of repeated collaborations for MPs of the DC than it was for their counterparts in the PCI. It may be the case that this finding is simply an artifact of size, i.e., that because the DC had more MPs than the PCI, MPs of the DC had more opportunity for strong collaborations. On the other hand, secondary literature on the PCI indicates that the dynamics of this party were informed by strong discipline and hierarchical organization. Overall, Table 4 suggests that both social cleavages and party were relevant in explaining repeated collaborations between MPs for both the DC and PCI. While party identity remained important, cleavages organized the deep divisions within each party - meaning the clusters of MPs – rather than across parties. What, then, kept the clusters together?

p < .05.

p < .001.

⁹ Anonymous reviewer 2 suggested an alternative explanation for the different rate of repeated collaborations between MPs of the DC and MPs of the PCI. He or she reasoned that the difference might be due to the fact that the PCI was a minority party and could not pass legislation on its own. We agree with this reasoning but would like to place it in the context of the Italian political system where cosponsoring was not exclusively a means of increasing the chance that laws would be approved but was also a byproduct of formal and informal relationships within the party.

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Table 5Proportion of weak ties by party (DC and PCI) and region.

	Same party	Different party
Same region	0.325	0.47
Different region	0.675	0.53
N	2680	841

7.2. Modeling weak ties

The question of why cleavages did not give rise to more parties draws our attention to the organizational aspects of the party rather than to the cleavages active in the larger society. The capacity of the party to hold each subunit together as one organization can be captured by analyzing weak ties. Table 5 presents the results of the analysis for the PCI and DC. Within each party, two thirds of weak ties (.67) occurred between MPs of different regions. Consistent with the previous model, geography did not seem to play a significant role in shaping weak ties outside of the party, with an almost equal percentage of cross-party weak ties arising within the same region as between separate regions (.47 vs .53).

Focusing attention on the DC, for example, MPs of this party (weakly) collaborated a total of 1761 times. The network formed a large component encompassing 97.5% of the DC MPs and included MPs from all regions—using a standard measure of heterogeneity 10 (Erikson and Bearman, 2006), the regional heterogeneity for the DC approached 76%. The statistics tell a similar story for the PCI, with the exception that geography informed one-time collaboration to a greater degree: 58% of weak ties occurred between Communist MPs of different regions. At the superficial level, MPs collaborated as members of the same party, without regard to their districts of origin.

Synthesizing the analysis of the two types of ties provides a snapshot of the two parties' networks. As an organization, the party holds a network of strong local clusters together. Each party, therefore, recomposes in itself the social cleavages of the country but to a different degree and in a different form. For the DC, weak ties held together clusters of MPs sitting on different sides of social cleavages; for the PCI, strong and weak ties behaved more similarly, in that they both crossed cleavages. These findings are stylized in the figure below:

The party is a network of MPs that at once expresses and organizes cleavages. Our findings are consistent with Andrew Appleton's study of French parties (1994), where, in addition to cleavages, discontinuities in the political-administrative system were incorporated into the organizational structure of the parties. The party operates as a closed and tight network on the basis of shared identity and history. This is usually the face of the party at a local level. However, on the national stage the party connects different clusters through variable, weak, and loosely coupled relationships. It might depend on the subject of the legislation to be cosponsored or on the political obstacle the party has to overcome, but collaboration across clusters can be interpreted as the opportunity to keep the party united. Further, our analysis supports Alessandro Pizzorno's argument (1980) that a party is made of two levels and that both make the party function and live as a network of relations (Fig. 4).

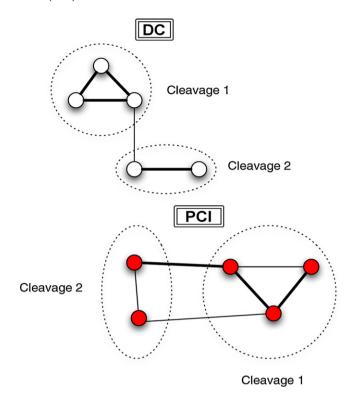


Fig. 4. The party's internal structure.

8. Discussion

Our analysis shows that MPs clustered together within both the DC and the PCI. We related the clusters to different macro regions and interpreted them as capturing the social bases of the party, i.e., the different cleavages that informed the country at the time. We used network analysis to model the patterns of collaboration and differentiated between strong and weak ties. Belonging to the same region raised the probabilities of cooperating between two MPs of the same party but did not play a role in collaboration across parties. This was consistent with the idea that MPs cooperated on the basis of mutual recognition and identification (over a special combination of cleavages) in a specific environment. We noticed, however, a different behavior between the DC and PCI. Whereas for the former, macro regions patterned the distribution of strong ties, for the latter party, the association between cleavages and strong ties appeared less salient.

Yet, simply focusing at strong ties cannot answer the next question: What did it take to keep clusters under the same party label? Conversely, why did MPs of different regions – i.e., coming from opposite sides of social cleavages but belonging to the same party – cooperate on bills? There is a simple answer: the party organized itself internally through a blending of loyalties and interests. The special combination of cleavages (interpreted as a sum of social divisions and systems of beliefs) that found expression within a party formed a loosely coupled network well suited for operating in a segmented political environment (Scott, 1998) like Italy in the 1970s. That is, MPs located on different sides of social cleavages had an interest in sticking together as one party because this reinforced the national reach of the organization and thus their power as party members.

Because parties were called simultaneously to answer the electorate's disparate needs and to organize relationships, MPs sometimes behaved strategically, collaborating across regions with other MPs of the same party, while other times their behavior was shaped by loyalties, as when they collaborated repeatedly with

¹⁰ We measured regional heterogeneity in the DC weak ties network as: $1 - \sum_{i}^{n} (a_i/z)^2$ where, "a" represents the number of MPs of region "i" in the component and "z" represents the total number of MPs in the network.

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MPs of the same region and party. Together, these two differently-motivated kinds of collaboration form the party's internal structure.

Finally, we believe that the analytical framework this paper develops can fruitfully be used for studying the behavior of parties in contemporary political systems characterized by proportional electoral laws (Spain for example). In these contexts, the opposing demands of loyalty to local electorates and of coordination of strategic behavior to win office are woven inside the party and give rise to loose coalitions of members. In Italy in the 1970s, these coalitions represented the active cleavages of the time. While the cleavages that organize contemporary Italian society are different from those of the 1970s, the relationship between them and the network structure inside the two major parties of today's Italy -Popolo della Libertà (People of Freedom, PdL) and the Partito Democratico (or Democratic Party, PD) - still remains. Given the arrival of parties based on territorial cleavages (the Italian Northern League, being the main example) onto the national political scene, coalitions of MPs from the South inside PdL and the center in the PD are easily recognizable. In synthesis, we think that focusing the analysis at the level of the relationship between cleavages and party networks is a theoretical approach that can be extended outside our case study.

Acknowledgements

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Appendix A.

Our analysis is based on the projected graph (the MP-to-MP network) of a bipartite network made up of MPs and bills (Bi-Net). The Bi-Net has a total of 3960 nodes (646 MPs+3314 bills) tied in 21,681 edges. Because projections of bipartite networks always generate a more clustered one-mode network, we checked if the largest component in the MPs to MPs network was induced via the projection. A clustered Bi-Net would strengthen our confidence that the clustering in the projected network was not artificial. We started our investigation by randomly removing an edge and adding one edge to a previously disconnected pair of nodes in the

Bi-Net. We repeated this operation ten thousand times. The result was a random bipartite graph with the same number of edges as the observed (Robins and Alexander, 2004). Then we randomly re-wired nodes by selecting two MPs and two bills at a time and recorded each resulting new graph (rBi-Net). We repeated the process 300 times so that in the end we had a uniform distribution of rBi-Nets conditional on the original constraints. We then focused on the clustering coefficient of Bi-Net. Following Garry Robins and Malcolm Alexander (2004), we defined a clustering coefficient for a bipartite graph as $4 \times (l_3/c_4)$, where l_3 is number of paths of length 3 and c_4 is number of cycles of size 4. We used this statistic to measure the difference between Bi-Net and our family of rBi-Net. The median clustering coefficient for the rBi-Nets was .0288 whereas for Bi-Net it was .084. We rejected the hypothesis that the observed clustering came from the same distribution of the random graphs (p < .000).

In order to test in more detail the hypothesis that the observed network (Fig. 2) was the byproduct of *trasformismo* we fit an Exponential Random Model (ERGM) to the data. Broadly speaking, *trasformismo* is a political practice whereby members of the Parliament switch alliances in order to maintain power. This behavior was characteristic of Italian MPs at the turn of the last century and before Mussolini took power. Several observers of contemporary Italian politics, however, think of *trasformismo* as an enduring institutional practice of the Italian Parliament and political system. In such a case, every edge has an equal probability to occur because parties are empty shells. More formally,

$$P(Y = y) = \frac{e^{[\theta'g(y)]}}{k(\theta)}$$

where, y is the observed network, θ is a vector of network coefficients, and k is a normalizing constant.

To bring this scenario more in line with the amount of observed clustering in the network of Fig. 2, we also took into account the presence of "triangles" in the network of MPs. We used *R* and the package *statnet* to fit the ERGM model with parameters, edges and triangles. While the estimates for both parameters were statistically significant—the probability of an edge forming without creating a triangle was .006; the probability of an edge forming that would also add a triangle to the network was .01—the predictions from the model were poor (Fig. A1).

The figure below calculates the goodness of fit of the estimated model with respect to the degree distribution.

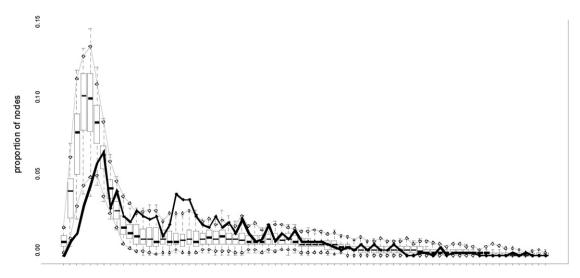


Fig. A1. Estimated ERGM model.

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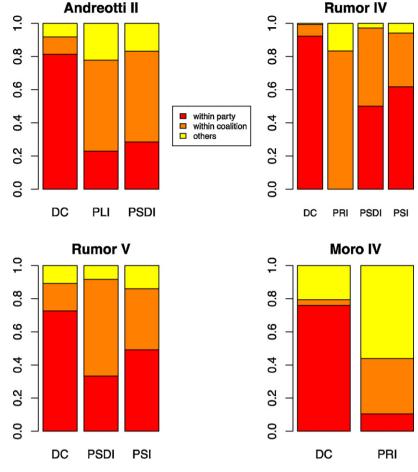


Fig. A2. Cosponsoring activity by government coalitions.

It is interesting to notice that the model generates a network that matches the observed one in the upper tail but that it is inconsistent in the lower end of distribution. In particular, far fewer nodes of degree two are present than predicted by the fitted model. We interpret the lack of fit as an indication that *trasformismo* did not operate in the Parliament we examined.

Finally, we tested our statement that small parties operated as satellites of the DC. With the exception of members of the MSI, lack of independence implied that MPs of small parties cosponsored overwhelmingly with MPs of other parties in the same government coalition. In the period of analysis (1972-1976, i.e., the VI legislative cycle), Italy had four coalition governments and one single-party government that lasted less than six months. Excluding this later government, therefore, we considered the proportion of cosponsoring for each party in a government coalition (Fig. A2).In the figure, the parties are reported on the x-axis and each plot refers to a government. The Prime Minister gave the name to the government and the ordinal number refers to how many governments the same Prime Minister had formed since the beginning of the Republic in 1948. So, for example, the title Andreotti II in the first plot on the left side means the second government of Prime Minister Giulio Andreotti. As expected, all the MPs from small parties heavily cosponsored with other MPs in the same coalition (orange bars). On the other hand members of the DC continued to privilege MPs of their own party (red bars). Only the last government has a different pattern where the junior patter in the collation, the PRI, had many ties going outside of the coalition (yellow bars).

References

Agnew, J., 2002. Place and Politics in Modern Italy. University of Chicago Press, Chicago/London.

Allum, P.A., 1970. The Italian Communist Party Since 1945. University of Reading, Reading.

Appleton, A., 1994. The formal versus informal rules of French Political Parties. In: Lawson, K. (Ed.), How Political Parties Work. Praeger, Westport, CT, pp. 23–54. Bagnasco, A., 1977. Tre Italie. La problematica territoriale dello sviluppo italiano. Il Mulino, Bologna.

Bartolini, S., Mair, P., 1990. Identity, Competition and Electoral Availability: The Stabilization of European Electorates, 1885–1985. Cambridge University Press, Cambridge.

Bearman, P., 1993. Relations into Rethoric. Rutgers University Press, New Brunswick, NI.

Becattini, G., 2004. Industrial Districts: A New Approach to Industrial Change. Edward Elgar, Cheltenham.

Bedlington, A., Malbin, M.J., 2003. The party, as an extended network. In: Life After Reform: When the Bipartisan Campaign Reform Act Meets Politics. Rowman & Littlefield, Oxford, UK.

Caciagli, M., Belloni, F., 1981. The 'New' Clientelism in Southern Italy: The Christian Democratic Party in Catania. In: Eisenstadt, S.N., Lemarchand, R. (Eds.), Political Clientelism, Patronage and Development. Sage, London, pp. 35–56.

Capano, G., Giuliani, M., 2001. Governing without surviving? An Italian paradox: law-making in Italy 1987–2001. The Journal of Legislative Studies 7 (4), 13–36. Capano, G., Vignati, R., 2008. Casting light on the black hole of the amendatory process in Italy. South European Society and Politics 13 (1), 35–59.

Cazzola, F., 1974. Governo e opposizione nel Parlamento italiano. Dottor A. Giuffrè Editore, Milano.

Coleman, J.S., 1975. Approaches to the study of social structure. In: Blau, P. (Ed.), Social Structure and a Theory of Action. Free Press. New York, pp. 76–93.

Erikson, E., Bearman, P., 2006. Malfeasance and the Foundation for Global Trade: The Structure of the English Trade in the East Indies, 1601-1833. American Journal of Sociology 112, 195–230.

Fowler, J.H., 2006. Legislative cosponsorship networks in the US House and Senate. Social Networks 28, 454–465.

323-352.

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Galli, G., 1976. Storia del PCI. Bompiani, Milano.

- Galli, G., 1978. Storia della Democrazia Cristiana. Laterza, Bari.
- Garry, R., Malcolm, A., 2004. Small Worlds Among Interlocking Directors: Network Structure and Distance in Bipartite Graphs. Computational & Mathematical Organization Theory 10 (1), 69–94.
- Ginsborg, P., 2003. A History of Contemporary Italy. Palgrave Mcmillan, New York. Giuliani, M., 1997. Measures of consensual law-making: Italian 'Consociativismo'. South European Society and Politics 2 (1), 66–96.
- Inglehart, R., 1977. The Silent Revolution: Changing Values and Political Styles Among Western Publics. Princeton University Press, Princeton, NJ.
- Inglehart, R., Flanagan, S.C., 1987. Value change in industrial societies. American Political Science Review 81 (4), 1289–1319.
- Kertzer, D.I., 1996. Politics & Symbols: The Italian Communist Party and the Fall of Communism. Yale University Press, New Haven.
- Communism. Yale University Press, New Haven.
 Key, V.O., 1966. The Responsible Electorate: Rationality in Presidential Voting,
- 1936–1960. Harvard University Press, Cambridge, MA. Kitschelt, H., 1992. Political regime change: structure and process-driven explana-
- tions. American Political Science Review 86 (4), 1028–1034. Klosfad, C.A., Sokhey, A., McClurg, S.D., 2010. Disagreeing About Disagreement: How
- Conflict in Social Networks Affects Political Behavior, Chicago, IL.

 Knutsen, O., 1988. The impact of structural and ideological party cleavages
 in West European Democracies. British Journal of Political Science 18 (3),
- Koger, G., Masket, S., Noel, H., 2010. Cooperative party factions in American politics. American Politics Research 38 (1), 33–53.
- Lapalombara, J., 1965. Italy: fragmentation, isolation and alienation. In: Pye, L.W., Verba, S. (Eds.), Political Culture and Political Development. Princeton University Press, Princeton, NJ, pp. 282–329.
- Leonardi, R., 1982. Political power linkages in Italy: the nature of Christian democratic party organization. In: Lawson, K. (Ed.), Political Parties and Linkage. A Comparative Perspective. Yale University Press, New Haven and London, pp. 243–265.
- Levi Martin, J., 2009. Social Structures. Princeton University Press, Princeton, NJ.
- Lijphart, A., 1984. Democracies. Patterns of Majoritarian and Consensus Government in XXI Century. Yale University Press, New Haven.
- Lijphart, A., 1968. Typologies of democratic system. Comparative Political Studies 1,
- Lipset, S.M., 1960. Political Man. Doubleday, New York.
- Lipset, S.M., Rokkan, S., 1967. Party Systems and Voter Alignments: Cross-National Perspectives. The Free Press. New York.

- Mair, P., 2006. Cleavages. In: William, J., Crotty, W.J. (Eds.), Handbook of Party Politics. Sage, London, pp. 371–375.
- Mammarella, G., 1976. Il partito comunista italiano: 1945–1975. Vallecchi, Firenze. Di Palma, G., 1977. Surviving without Governing: The Italian Parties in Parliament. University of California Press, Berkeley.
- Panebianco, Å., 1988. Political Parties: Organization and Power. Cambridge University Press, Cambridge.
- Parigi, P., Bearman, P., 2008. Spaghetti Politics. Social Forces 87 (2), 623-650.
- Pasquino, G., 1975. Crisi della DC ed evoluzione del sistema politico italiano. Rivista Italiana di Scienza Politica 5 (3), 443–472.
- Pasquino, G., 2009. Political history in Italy. The Journal of Policy History 21 (3), 282–297.
- Pfeffer, J., Salancik, R., 1978. The External Control of Organizations. Harper & Row, New York
- Piore, M.J., Sabel, C.F., 1984. The Second Industrial Divide. Basic Books, New York. Pizzorno, A., 1980. I soggetti del pluralismo. Classi, partiti, sindacati. Il Mulino, Bologna.
- Poggi, G., 1968. L'organizzazione partitica del PCI e della DC. Il Mulino, Bologna. Predieri, A., 1975. Il Parlamento nel sistema politico italiano. Edizioni di Comunità,
- Sartori, G., 1976. Parties and Party Systems. Cambridge University Press, Cambridge. Sartori, G., 1990. The sociology of parties: a critical review. In: Mair, P. (Ed.), The
- West-European Party System. Oxford University Press, Oxford, pp. 150–182.

 Saxenian, A.L., 1994. Regional Advantage: Culture and Competition in Silicon Valley and Route 128. Harvard University Press, Cambridge, MA.
- Schickler, E., 2001. Disjointed Pluralism: Institutional Innovation and the Development of the U.S Congress. Princeton University Press, Princeton, NJ.
- Schwartz, M.A., 1994. Party organization as a network of relations: the Republican Party of Illinois. In: Lawson, K. (Ed.), How Political Parties Work, Praeger, Westport, CT, pp. 75–102.
- Schwartz, M.A., 1990. The Party Network: The Robust Organization of Illinois Republicans. University of Wisconsin Press, Madison.
- Scott, R.W., 1998. Organizations, Rational, Natural and Open Systems. Prentice-Hall, Inc, Upper Saddle River, NJ.
- Stinchcombe, A., 2005. The Logic of Social Research. The University of Chicago Press, Chicago/London.
- Tarrow, S., 1967. Peasant Communism in Southern Italy. Yale University Press, New Haven.
- Trigilia, C., 1986. Grandi partiti e piccole imprese: Comunisti e Democristiani nelle regioni a economia diffusa. Il Mulino. Bologna.
- Trigilia, C., 1981. Le subculture politiche e territoriali. Feltrinelli, Milano.

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