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The Power of the President. A Quantitative Narrative Analysis of the Diary of an Italian Head of State (2006-2013)

1. Introduction

Many authors agree that the President of the Italian Republic (PoR hereafter) is the head of state with the widest powers among parliamentary governments in Europe (Calise, 2013; Cheli, 2013, Author's own, 2014a, 2014b; Grimaldi, 2011b, 2015).

Although several studies have sought to explain *Why* the President's power may increase or decrease under certain circumstances, a *quantitative* measurement of the phenomenon – able to answer questions also about the *Who* (the actors), *How* (the modalities) and *How much* (the consistency) of the phenomenon itself – has seldom been carried out by scholars.

This paper seeks to answer these unanswered substantive questions by measuring the potential power of the Italian President of the Republic in a crucial case – the first presidency of Giorgio Napolitano (2006-2013). It does so by means of a Quantitative Narrative Analysis (QNA) and a Social Network Analysis (SNA) of his Diary carried out in a semi-automated manner using Natural Language Processing (NLP) techniques such as Regular Expressions (RE) and Named-Entity Recognition (NER).

In regard to the theoretical contribution of the paper, the empirical analysis conducted in the crucial case study is intended to enhance the scholarly debate on the PoR by testing the current theories, and/or providing insights for new research hypotheses.

As regards the methodological contribution of the paper, its aim is to demonstrate that QNA with NLP tools for semi-automated analysis of textual data can be considered an effective and reliable methodology for the empirical investigation of potential power, enabling a more widespread application of this technique in the quantitative analysis of topics related to the power approach – that some scholars consider otherwise obsolete – also at the comparative level.

The paper is structured as follows. The second section explains the constitutional role of the Italian PoR; the third section illustrates the main theoretical approaches with which the power of the PoR in the Italian parliamentary system has already been analysed in the literature. In the fourth and fifth sections, the theoretical-conceptual foundations for operationalization of the concept of power are discussed. The sixth section illustrates a methodology proposal for the empirical analysis of the potential power of the PoR. In the seventh section, the proposed methodology is applied to a crucial case. The eighth section concludes.

2. The Constitutional Role of the Italian PoR

In Italy, the PoR is elected by the parliament for a seven-year mandate, two years longer than the Chamber of Deputies (lower house) and the Senate of the Republic (higher house). The Italian Constitution assigns the PoR, as Head of State, a role that is not only symbolic or ceremonial in nature, but also endowed with high political significance (Calise, 2013; Author's own, 2014b). More in detail, the Italian Constitution ascribes the PoR an important role in four fundamental processes of the parliamentary system.

First, in the *process of government formation*, art. 92 of the Constitution allows the President to use his/her judgement to appoint the Prime Minister and, on the latter's proposal, the ministers. The Constitution does not indicate how the appointment is made or the degree of autonomy allowed for presidential choice.

Second, art. 88 assigns the PoR a fundamental role, with few limitations, in the *process of parliamentary dissolution*. Art. 88 is very concise, prescribing only two limitations on the President's freedom to dissolve parliament: the PoR must consult with the speakers of the two chambers, s/he and cannot exercise this right during the last six months of his/her mandate (the so-called *white semester*).

Third, presidential influence on the parliament is exerted primarily through *control of the transitional timing* from the old to the new parliament. Art. 74 provides the PoR with

the responsibility to call new elections and set the date of the first meeting of the parliament; while art. 59 empowers the President to appoint senators for life.

Fourth, the role granted to the PoR in the *policy-making process* concerns his/her capacity to convene the chambers for extraordinary meetings (art. 62); promulgate laws (art. 73); authorise government bill submissions to the chambers and the issue of decree-laws by the government (art. 87); and the return of legislation to the chambers for further deliberation by parliament (art. 74). The PoR is also allowed to send messages to the chambers (art. 87).

Moreover, although this is implicit and informal, the Italian Constitution allows the PoR freedom of speech and expression of his/her personal opinions. This informal power enables the president to exercise his/her moral suasion on both governmental and parliamentary decisions, without any formal limitation on the political content of the speeches and the means used to express them (e.g. official speeches, informal messages, interviews).

3. Analyses of the PoR's Power: A Literature Review

The PoR's power in the Italian parliamentary system has been mainly analysed by means of three theoretical approaches: *institutional*, *relational* and *presidential*.

Institutional approach. The institutional approach analyses the presidential power in comparative terms as a result of the normative restraints and intervention opportunities conferred on the PoR, and on the other institutional actors of the form of government designed by the Constitution (and/or by other established institutional practices). The subject of this theoretical approach is not the power of the PoR him/herself, but the formal and informal powers that a president may use (or not) in relations with other institutional actors. These powers are the fundamental resources on which the PoR can draw in the various political processes in which he[1] has to intervene. Thanks to these resources – and also thanks to the interpretation of the norms regulating their use – he may influence decision-making processes and their outcomes (Shugart & Carey, 1992; Ieraci, 2003).[2] The theoretical scheme of the institutional approach can be summarized as follows: constitutional rules and established institutional practices (A) produce the PoR's power resources (B) which, when used, have an impact on the government's decisions and political actors' behaviours (C).

Relational approach. The relational approach analyses the PoR's power as a result of his relations with other political actors. In consideration of the conciseness of the Constitution articles regarding the PoR, some authors maintain that the president's power depends on his relations with other political actors. Given that political parties are

considered the most important actors in the political system, the variability of the PoR's power ultimately depends on his relations with them; i.e. the so-called 'presidential accordion' (Author's own, 2005, 2011; Pasquino, 2012). More in detail, the PoR's power is inversely proportional to the strength of political parties in governmental institutions: the higher their capacity to obtain stable and functional majorities, the lower the PoR's power, and vice versa. In the relational approach, the parties' strength or weakness (A) produces more or fewer PoR power resources (B) which have an impact on the government's decisions and political actors' behaviours (C).

Presidential leadership approach. Recently proposed has been an interpretation of the PoR's power which develops within leadership theory. The theory refers to the processes of presidentialization of politics (Poguntke & Webb, 2005; Calise, 2016), and analyses the PoR's power as resulting from conditions exogenous (e.g., international factors such as EU restraints or opportunities) and/or endogenous (e.g., cultural factors such as disaffection with party politics and governmental institutions) to the political system. These conditions enable the PoR to activate (or not) his personal resources in power relations. The PoR's greater power is manifest in a more intensive use of so-called *informal* or *soft* powers. These powers are based on the PoR's communication skills and personal resources exercised through formal and informal channels of influence, like freedom of speech and

expression of his opinions (*esternazioni*), on every possible policy issue (Grimaldi, 2011a; Author's own, 2014a, 2014b), and 'moral suasion' powers (Calise, 2013; Amoretti & Giannone, 2014; Grimaldi, 2017). The explanatory scheme of the presidential leadership approach can be summarized as follows: conditions exogenous and endogenous to the political system (A) produce individual power resources for the holders of monocratic positions – among them the PoR (B) – which, when used, have an impact on the government's decisions and political actors' behaviours (C).

4. The Concept of Power and its Applications to the Empirical Analysis of the PoR

It emerges from the literature review that the three above-mentioned approaches – though different in explanatory terms – share the same substantive scheme, which can be further divided in two different analytical stages.

The first stage (causal flow from A to B) analyses the PoR's power in terms of *potential*, and dwells in particular on the conditions which allow the presidential resources to increase or decrease, being used to change others' behaviour. The second stage (causal flow from B to C) analyses the power in *actual* terms, aiming to explain if and to what extent the PoR's conduct is able to generate behaviours in line with what he expressly requires to the political actors with whom he relates.

To assess the PoR's power, it is mandatory to analyse at least one of the two different causal flows composing each of the theoretical approaches: be it flow A-B (i.e. the flow of potential power), flow B-C (i.e. the flow of enacted power), or both.

Although all three theoretical approaches refer to the concept of power as an analytical basis on which to assess the power of the PoR, the use of the concept of power itself is limited to fragmentary operationalization, and seldom applied in empirical research.

In fact, in relation to the potential power flow (A-B), the aim of previous research has been mainly to assess the amount of the resources available to the PoR, their variability and the conditions for their use. What emerges is a variegated picture in which the strength of rules and practices is compared to that of political parties, both of them dealing with exogenous factors, and with the personal resources of the president.

Less detailed are the empirical analyses that scholars have devoted to the other three factors which contribute to the definition of the potential power (Stoppino, 1982, p. 23). They are: the willingness to use said resources in power relations; the ability to use them; and the readiness of the passive subjects in the power relation to modify their behaviour according to the PoR's will or interest.

In regard to the enacted power flow (B-C), contrasts emerge if we examine the related literature. In fact, numerous studies have focused on assessment of the weight of

presidential decisions in some *crucial junctions* of the Italian parliamentary system (the processes of government formation and parliamentary dissolution, ex art. 88 and art. 92 of the Constitution), illustrating the power of various presidents in those specific political processes. But still lacking in this literature is analysis of the impact of presidential conduct on *policy decisions* issued by governments and parliaments, although scholars cite a wide range of subjects on which the PoR may intervene, as well as different instruments with which he can exert his influence.

To be noted is that in our study, as a deliberate choice, we will focus only on analysis of the potential power flow (A-B), whose definition and scope of applicability to the study of the PoR in the Italian political system will be discussed in detail in the next section.

5. The Relations of the PoR as Potential Power Relations

To assess the PoR's potential power (A-B), it is necessary to define some relational aspects of the said phenomenon. This is because the potential power is intrinsically a (social) relational phenomenon. Following Provan (1980, p. 550), the potential power can be defined as 'the capacity of one social actor to influence another'. More specifically, it consists of a triadic relationship among attitudes to act which analytically further breaks

down into the following points: 1) the capacity of subject A (individual or group, in our case the PoR) to behave to modify the behaviour of B (individual or group) in the interest (or according to the will) of A; 2) the possibility that following the possible behaviour of A (individual or group, in our case the PoR) the subject B (individual or group) behave/s according to the interest or will of A; 3) the cause and effect relationship emerging between the two possible behaviours (Stoppino, 1982, p. 22).

Point 3 is the fundamental one among the others. It indicates that to have power it is necessary that the possible behaviour of subject A is the cause – and hence we mean *potential* cause – of the possible behaviour of subject B. In relation to the research problem under analysis, it is necessary to analytically demonstrate that the behaviour possibilities of the PoR – when he develops a visible and observable relationship with one or more political actors – is a potential cause of the actors' conforming behaviours.

To establish a principle for the observation and validation of such a causal link, it is necessary to start from a logical consideration. Not all relations among actors or groups are power relations, but all of them can *potentially* be power relations. This is particularly valid in regard to the relations of *stabilized power* that can be defined as *institutionalized power*. In these cases, 'it is highly probable that B regularly behaves according to the will or interest of A, and this is matched by a high probability that A acts to modify the behaviour

of B or modify such behaviour in the interest of A' (Stoppino, 1982, p. 25). In order to illustrate and explain the potential power of an institutional subject such as the PoR, it is thus necessary to consider all relations that he entertains with actors with whom he interacts. Said relations express a *necessary*, but not *sufficient*, condition to define a certain kind of relation as a potential power relation.

At this point, we still do not know if any relation can be allocated to a category in which the behaviour of A (in our case, the PoR) is a potential cause of the behaviour of B (other actors). The PoR can interact with other political actors and, in particular, with members of the government or parliament whenever he decides to do so and for many different reasons. Three of these reasons seem to be prescriptive, because the actors who are required to interface with the PoR are obliged to do so in light of the following institutionalized relational purposes: *informational*, *ceremonial-protocol* and *executive*. The basically exclusive presence of these three purposes in the PoR's relations with the actors of political institutions has been inductively identified by analysis of the Diaries of some of the most prominent Italian institutional figures: the Diary of Antonio Segni (PoR, Prime Minister, Minister, Senator and Deputy), (Mura, 2012), that of Mariano Rumor (Prime Minister, Minister, Senator and Deputy), (Rumor, 1991), and the Diary of Pietro Nenni

(Vice Prime Minister, Minister, Senator and Deputy), (Nenni, Nenni & Zucàro, 1981, 1982).

We define the *ceremonial-protocol* purpose as that the one which commits the actors of the political system to relate with the PoR within the framework of given rules and customs that regulate, e.g., for the case under examination, the annual celebrations of the Italian Republic; the opening of the judicial year, etc. We consider the ceremonial-protocol purpose to be a constant factor because it appears regularly during the different periods of the presidential term, of the government mandate, and of the parliamentary political agenda.

Instead, we consider the *informational* and *executive* purposes to be those that imply a potential power relationship. Indeed, on the one hand, the informational purpose enhances the knowledge resources that can be used by the PoR in the power relation itself; on the other, the executive purpose implies the expression of an order, or at least a direction, which the PoR would like to be followed by the actors interfacing with him or by other actors who may be influenced by it.

If we do not consider the ceremonial-protocol purpose – assuming that it occurs as a constant factor – the relations between the PoR and the actors of the government-parliament subsystem are potential power indicators for two main reasons.

First, these relations enhance the knowledge resources of the PoR, which can be used by the PoR himself in actual power relations.

Second, they define the order content, i.e. what the PoR would like to be done or avoided for the solution of a certain political and/or institutional problem.

Thus understood – and considering that in institutionalized relational patterns it is by definition highly probable that a conforming response of B follows a possible behaviour of A – it appears reasonable to maintain that such relations express a *sufficient* condition to define the PoR's relations as relations which increase his *potential* power. In other words: any relationship that the PoR maintains with actors belonging to the political system, and in particular with actors belonging to the government-parliamentary sub-system, corresponds to a potential power relation, where the PoR is the potentially active subject.

The field of theoretical applicability of this conceptualization and its limits should clearly emerge from the foregoing discussion.

First, to analyse the PoR's potential power as a projection of his relational activity, the PoR should be considered a governmental actor: in other words, as the holder of one of the distinct and coordinated institutionalized roles through which political power is exercised.

Second, since the PoR is considered an active actor in the potential power relation, it cannot be inferred that such power relation is totally unidirectional and asymmetric. It cannot be excluded that the subject B has his own resources and capabilities potentially able to influence the behaviour of the PoR, and that the latter may be willing to modify his behaviour according to the interest or will of B. As stated by Battegazzorre (2017, p. 7) 'there are power relations that are bilateral and mutually conditioned, so that B's compliance with A's desires depends on A's compliance with B's desires. Nevertheless, at stake here are two analytically separable (and also empirically distinguishable) instances of social power'. The potential power of the PoR is indicative of his capacity to intervene in the political circuit, but this capacity may be negligible if other institutional actors in the circuit are able to react to the PoR's initiatives, thereby diminishing his autonomy (Ieraci, 2003).

Third, our analysis only addresses one aspect of potential power. To be exhaustive, the analysis should also consider other *informal* or *soft* types of power, such as moral suasion power.

6. Data and Methods: A Quantitative Narrative Analysis of the PoR's Diary

The search for answers to the questions on the actions and the ability to act of political and social actors and their *potential power* has given rise to wide-ranging debate in social sciences which can be briefly summarized in the *agency* vs. *structure* debate (Franzosi, De Fazio & Vicari, 2012, p. 3).

In fact, many researchers have proposed different methodological solutions to the problem, trying to assess what factors can explain the temporal, geographical variation, and/or the variance in the number and intensity of the actions and power of the actors observed (Franzosi, 1999, p. 132). One of the instruments most frequently used to answer these questions is *event counting*, considered by scientists to be a dependent variable, e.g. within regression models. However, scholars have increasingly shifted their attention from the properties and characteristics of individual actors to the interaction network among them (Emirbayer & Goodwin, 1994; Diani, 2003; Lansdall-Welfare et al., 2017).

According to Franzosi (1999, 2010, 2012), the scientists' shift in focus from *structures* to *interactions* was made possible by the development of new data analysis instruments and, in particular, the spread of network models. Franzosi himself (1998) defines a linguistic approach to text coding based on a data collection instrument 'ideally suited to be analysed with the use of network models', as an alternative to the traditional systems for the evaluation and measurement of the properties and characteristics of

individual actors (Franzosi, 1999, p. 133). This methodological shift has been made possible by the existence of a direct link between agency and narrative, understood as a sequence of actors doing something or saying something. Exploring this link, Franzosi proposes a new method to operationalize the concept of agency through a series of detailed procedures known as Quantitative Narrative Analysis (QNA hereafter) (Franzosi, 2004, 2010, 2012).

The advantage of QNA is that it enables the researcher to abandon a variable-centred approach in favour of an actor-centred approach, although it continues to be based on a quantitative analysis methodology (Franzosi, De Fazio & Vicari, 2012, p. 5). As a quantitative methodology approach, based on personified agents, QNA is a useful instrument with which to find answers to questions as to Who, What, How, When, and Why, in relation to political and social actors, and to assess their potential power. Ultimately, QNA enables the researcher to transform the *words* contained in a text source into *numbers*, and then go back to words (Franzosi, 2010).

In this paper, which empirically analyses the potential power of the PoR, we consider the Diary of the Italian PoR as *unit of analysis* and *source of data*. The Diary, which was first made public[3] during Ciampi's Presidency (1999) and has been available throughout Mattarella's Presidency so far (2019), is a digital agenda where all the daily appointments

and visits of the presidents during their term are noted, as shown in Table 1. The content of each meeting is not disclosed in the original data source. In fact, the Diary only contains short text snippets specifying the date of each meeting, where it took place, and the names and roles of the actors with whom the PoR interacted. Indeed, the Diary does not include any further specification on the content of the meeting (e.g. what the PoR and the actor/s with whom he interacted talked about during their gathering) or of any of its details (e.g. the total duration of the meeting).

<INSERT TABLE 1 HERE>

The Diary can be considered a narrative text characterized by a fundamental Subject-Verb-Object (SVO) structure: where the PoR (S) receives or visits (meets) and (individually or together with other political or politically relevant actors) interacts (V) with, for example, government or parliament members (O) according to his own will and for different reasons. On the basis of its linguistic and textual characteristics, the PoR's Diary makes it possible to resort to QNA through a Program for Computer-Assisted Coding of Events (PC-ACE),[4] specialized software for the coding and processing of narrative data. The presidents' diaries – where available – are considered by scholars to be a potentially

fruitful source of data[5] (Edwards & Wayne, 1990; Link & Kegley, 2008), and have been used in many research studies with several disciplinary approaches and analytical objectives (Sigelman & McNeil, 1980; Best, 1988, 1992).

The choice of the Diary has various advantages for empirical research. The most evident is the non-reactivity, and the possibility of a diachronic analysis of the selected document as a product of institutional life. Institutional documents are, indeed, more suitable for a quantitative analysis, especially if they are divided into interrelated homogeneous elements (Corbetta, 1999). Considering the latter aspect, QNA – through the so-called 'rewrite rules' (Franzosi, 2010, p. 24) – enables a coding of the events present in the identified text source (e.g., the Diary), and their organization into a *vertical* and *hierarchical* structure, composed of *narrative* information.

Finally, the nature of the data collected in the database is suitable for approaches able to take into consideration the *homologous relation* between semantic grammars and network models (Franzosi, 2004, pp. 100-109), which are usually used in Social Network Analysis (SNA hereafter) (Wasserman & Faust, 1994, p. 6) to map the relations among actors in different action areas (Diani, 2003), and ultimately as a proxy for the PoR's potential power (Wada, 2004) within the Italian political system.

6.1 The first Presidency of Giorgio Napolitano (2006-2013) as a crucial case study

For the research reported in this paper, the first Presidency of Giorgio Napolitano[6] was chosen as a case-study (Pasquino, 2006) on the basis of the requirements of prominence, significance and representativeness, which justify the choice of a specific case to be empirically tested (Eckstein, 1975; George & Bennett, 2005). Lippolis and Salerno (2013, p. 9), for example, state that the presidency of Napolitano is 'destined to be remembered' as a period in which the figure of the PoR was the focal point of the political life of the country and strongly influenced its development. Cheli (2013, pp. 439-440) comments on the enhanced centrality of the presidential role during Napolitano's first Presidency, tracing it back to the significant impact that he had on all decision-making cycles; Calise (2013, p. 460) considers the seven-year term of Napolitano to be 'the most presidential one in the republican history'.

The case study of the first Napolitano Presidency is suitable for testing the theories illustrated in the previous sections because it is expected to furnish 'the strongest sort of evidence possible in nonexperimental, single-case study' (Gerring, 2007, p. 115).

We would also point out that the decision to use the QNA, associated with the SNA, as a methodology aimed at the empirical analysis of the PoR's potential power, is particularly suitable for a crucial case study. Indeed, the QNA combined with network

analysis enables – contrary to the traditional kinds of statistical analysis of time series – assessment of short sampling periods, notably by reducing the risk of masking intra-sample time variations (Franzosi, 1998, p. 145).

6.2 Data processing

The time period taken into consideration corresponded to the first Napolitano Presidency, and extended from 15 May 2006 to 30 April 2013. Information on 3068 events of the seven-year term – contained in the Diary – was then collected. All the information was extracted by means of a *scraping process*[7] and transferred to the PC-ACE software. Not unlike other quantitative approaches for content analysis, QNA requires different tasks to be carried out before performing the analysis of the data and their interpretation (Franzosi, 2010, p. 60): data *coding*; data *verification* and *cleaning*; data *aggregation*; data *querying*.

6.2.1 Data coding, verification and cleaning. In an attempt to reduce as much as possible the costs embedded in the use of human agents for data coding (Franzosi, 2010, p. 91), stage 1 was carried out using instruments for Natural Language Processing (NLP)[8] (Manning and Schütze 1999), and the support of data processing software. In particular, to extract semantic triplets from the field 'Descrizione *(Description)*' of the Diary, we relied

on some specific NLP techniques, such as/including Regular Expressions (RE) and Named-Entity Recognition (NER). In formal language theory, and in computer science in general, a RE is a sequence of symbols identifying a set of strings which make it possible to exploit the regularity in a text structure to extract information (Hopcroft, Motwani & Ullman, 2006). The use of RE was particularly effective in our research because of the formal and standardized structure of the fields in the Diary. NER instead, is a technique used for the recognition and extraction of entities, understood as named-entities (Collobert et al., 2011) such as, for example, persons, places or time references. We developed an *ad-hoc* instrument for the Italian language, able to exploit the characteristics of the data contained in the Diary and to automatically extract the names and roles of the actors involved in each of the events concerning the PoR (see Appendix V). Combining the two above-mentioned techniques, each actor was then associated with his/her institutional position and any title (e.g. 'Sen', 'Chairman').

In stage 2, the database was manually checked by human agents to exclude systematic errors and/or errors caused by deviations from the Diary's writing style (Franzosi, 2004, pp. 76-79).

As a result of the data coding, verification and cleaning stages, the semantic triplets (like the one in Fig. 1) obtained in the first Napolitano term of office were 3473,[9] in which

the PoR always appears in the implicit role of subject (S). The actors – in the role of object (O) – with whom he interacts with reception/visit actions (V) were more than 1300, with an average of 2.3 commitments per day for seven years.

<INSERT FIGURE 1 HERE>

***6.2.2 Data aggregation and querying*.** During stage 3, a data reassembling procedure was performed on the basis of the schemes contained in Appendix III and IV. For example, the PoR's meetings were classified according to the state power to which the action could be referred – e.g., the executive, judicial or legislative power. In relation to each of these powers, different roles were then identified and assigned. After setting up the scheme and relations among the different levels of aggregation, the data processing stage was automated as much as possible by searches for key words concerning the univocal classification of an actor based on his/her title and/or role as reported in the sampling unit, i.e. 'Sen', as included in the Diary. Again, human agents then rechecked the aggregations. The cases not automatically recognized because of lacking or insufficient information were then completed.[10] Events involving more than one actor – e.g., meeting with the chairman

of a parliamentary committee and a member of a parliamentary committee – produced several semantic triplets equal to the number of actors involved (excluding the PoR).

The relational characteristics of the database thus obtained enabled us to perform the information extraction through the Structured Query Language. The PC-ACE software enabled us to set up the networks and charts for analysis of the observation of the PoR's meetings. The latter were clustered according to the levels of detail and classification previously discussed and considering different time units (year of the term of office and/or national government in place).

In relation to the PoR's potential power analysis, egocentric networks and organ pipe charts were used. Within the latter, orthograms – *normalized* according to a proper time unit – make it possible to consider year-by-year the trend of the PoR's relational *intensity* with different actors. Considering the egocentric networks (Knoke & Young, 2008, p. 70), the President is always the *central node*, while the different actors with whom he interacts are considered *peripheral nodes*. Their interaction is evaluated according to the *frequency* of their meetings on a specific *relational sphere of action*.

7. Data Analysis: The PoR's Potential Power over the Executive and the Legislative Branch

7.1 The PoR's Potential Power over the Executive

The issues dealt with in this section concern answers to the substantive questions from which we started, related to the *Who*, *How* and *How much* of the potential power[11] ascribable to President Napolitano during his first term of office. On the basis of the data available, the analysis will then focus on the actors who interacted with the PoR, on the intensity and frequency with which said interactions took place, with particular regard to relations with the actors belonging to the government-parliament subsystem.

At a more general level (Fig. 2), the analysis starts from an overall representation of the network of Napolitano's relations with the main political institutional actors, aggregated by categories relative to the state powers (see Appendix III and IV); these refer to the executive, legislative branch, judiciary, local government bodies, and defence and security.

<INSERT FIGURE 2 HERE>

From the different radiuses of the network peripheral nodes it can be inferred that the PoR is an actor with a strong political connotation because his potential power is expressed mainly towards actors belonging to the executive and legislative powers.

Therefore, the PoR's potential power gravitates more frequently around the core of the state's decision-making system.

More in detail, Napolitano's potestative capacity is centred on the executive with values far higher than on the legislative branch, and more than double compared with the judiciary. In fact, out of a total of 762 meetings among the three powers during the seven-year term, 407 took place between the President and the executive, 226 with the legislative branch, and 129 with the judiciary.

<INSERT FIGURE 3 HERE>

Taking into consideration the trend of Napolitano's potential power over the executive, i.e. analysing it separately for each government of the seven-year term,[12] we register, however, an irregular trend characterized by high values during the Prodi II government, a decrease during the Berlusconi IV government, and a maximum peak with the Monti government (Fig. 3).

The trend is similar – but with lower values – in regard to the legislative branch, while as to the judiciary the values tend to level out, with a maximum peak of relations registered during the Prodi II. With respect to both of them – as for the executive –

Napolitano's potential power reaches its lowest level during the Berlusconi IV. If, during the Monti government, we see the potential power of Napolitano rise to defend – and perhaps give a direction to – the executive, to be noted is that the potential power over the legislative branch increases when the problem is to protect the weak majority supporting the Prodi II government. It is then evident that the PoR's potential power over the government-parliament subsystem tends to decrease when the executive is ruled by cohesive and ideologically coherent majorities – as in the case of the Berlusconi IV.

More in detail, when dwelling on the relations between Napolitano and the political-institutional subjects acting in the executive (Fig. 4), attention is attracted by a counterintuitive fact: most of Napolitano's interactions with the governments did not have the prime minister as their main relational subject. Among the government members, those who met most frequently with the PoR were ministers (243 meetings), and the president of the council of ministers (159 meetings).

The meetings between the PoR and the prime minister on his own – i.e. not accompanied, for example, by the deputy prime minister and/or undersecretaries – take place less frequently. Even when this occurs at its maximum intensity – with Prime Minister Mario Monti – the relations between Napolitano and the government ministers in the Monti government are, however, more frequent.

<INSERT FIGURE 4 HERE>

These considerations lead to the conclusion that the *protection* exercised by the PoR in regard to governments that he considers more deserving of his potestative interest is not limited to the figure of the head of government, but it concerns all the political components of which the government is composed, with particular regard to the ministries. Napolitano seems to have a potential power over governments which extends to control of the policy-making for which ministries are responsible, and it is not just limited to the stages of compiling the agenda and drawing up policy alternatives.

Figure 5 makes it possible to maintain the focus on the relations between Napolitano and ministries – represented in the relation with the PoR by at least one among the minister, deputy minister or undersecretary[13] – during the seven-year term.

<INSERT FIGURE 5 HERE>

The network shows that Napolitano directs his potential power to the four ministries constituting the state's political administrative *backbone*, in decreasing order of relational

intensity: Ministries of Economy and Finance (44 meetings in the seven-year term), Foreign Affairs (33), Justice (28), of the Interior (26). In particular, a prevalence of relations with the Ministry of Economy and Finance has to be noted. However, this prevalence – as shown in Figure 6 – takes place during the Prodi II government, when the relations between the PoR and the Ministry of Economy sharply increase (18 meetings in 734 days), while during the Berlusconi IV they were almost the same (17), but out of a total of 1288 days. Also to be noted is that the government whose ministerial components Napolitano mostly relates to – the Monti government – has as key actors the Ministry of Foreign Affairs and the Ministry of Justice (both met 13 times in 530 days).

<INSERT FIGURE 6 HERE>

7.2 The PoR's Potential Power over the Legislative Branch

The first step in examining the trend of Napolitano's potential power over the legislative branch (see Appendix III and IV) is to compare the frequency in the seven-year term of the meetings with the two Houses of which the Italian parliamentary system is composed. In spite of the numerical differences in the composition and size of the two Houses – 630 deputies and 315 senators, plus a variable number of senators for life – the absolute

frequency of the meetings with the Chamber of Deputies exceeds by only 8 units the frequency of the meetings with the Senate of the Republic: 113 against 105. This shows a substantial balance in the attention given by the President to the two Houses.

If we consider the frequency of the meetings *sphere of action* year-by-year, it is possible to combine additional details: the intensity of the relations with the Chamber is higher than that with the Senate only from the third year of the President's term. Before that, the meetings with the Senate are significantly more numerous than those with the Chamber.

The analysis conducted so far has considered the two Houses of Parliament as unitary entities including all the posts of which they are internally composed. The next step consists in breaking down the Chamber and Senate into subunits of analysis.

<INSERT FIGURE 7 HERE>

The network of Fig. 7 shows e.g., Napolitano's potential power towards the chairmen of parliamentary committees and members, considering both Houses.

The data indicate a higher frequency of meetings with the leading figures of parliamentary committees, more than with individual members. More in detail, considering

that the number of meetings with the chairman is 39, while the number of meetings with committee members is 17, it can be inferred that in 70% of the occasions when the PoR met the parliamentary committees, he met their leading figures. Moreover, the analysis shows a sharp PoR preference for expressing his potential power towards the Senate committee chairs, whom – in 6 out of 7 years – he met more frequently than their counterparts in the Chamber.

An additional basic unit into which the legislative branch in the two Houses has been broken down is the figure of leader of majority and opposition groups. In this regard, the PoR appears to tailor his action over time, instead of adopting an overall strategy valid for the entire mandate. As shown in the chart below, (Fig. 8) – illustrating the intensity of the PoR's relations with majority and minority leaders in the two Houses – Napolitano expresses his potential power towards the majority groups in the Senate and in the Chamber mainly during the Monti government.

<INSERT FIGURE 8 HERE>

In particular, the maximum intensity of the relations during the so-called *President's government* was registered with the majority leaders in the Chamber, mainly

because the government was almost cross-party supported. However, it should be stressed that the data shown in the above-mentioned chart are normalized by government. Therefore, the number of contacts between the PoR and the majority leaders in the lower house takes place in less time compared with the duration of other governments, thus defining a peculiarity of this part of the presidential term.

By contrast, during the Berlusconi IV, the intensity of Napolitano's debate with the parliamentary majority in both the Chamber and the Senate shows a relative reduction. At the same time, the relations with the minority intensify in both Houses, reaching the maximum peak of the whole seven-year presidential term.

During the Prodi II, the intensity of the debate with the majority groups' leaders in the Chamber and Senate is similar to that of the Berlusconi IV government. However, Napolitano's relations with the minority groups are now drastically different compared to the ones of the previous government. This time, Napolitano does not exercise any potential power towards the minority groups' leaders in the Chamber of Deputies, reducing to the minimum also his meetings with the leaders of the same groups in the Senate.

The analysis of the legislative actor proposed here highlights the PoR's power resulting from his relations with the key political actors of the political system. In particular, due to the fact that parties are crucial for the creation of parliamentary majorities

and minorities – also on the government-opposition axis – they are mostly accountable for a change in the exercise of the presidential potential power. Also from this point of view, Napolitano tailors his action by adopting different strategies year-by-year. Therefore, in the first year, the meetings with political parties are 14, in the second they decrease to 6, in the third they increase to 15 and in the fourth to 13. In the fifth year, instead, the meetings registered again decrease to 6, and reach in the sixth year the maximum peak of 24, followed by a new normalization with 13 meetings in the seventh and last year.

Figure 9 shows with which parties Napolitano expresses his potential power. Out of a total of 23 different parties met by the PoR, the party organization with which he had most meetings was the *Partito Democratico*, followed by *Il Popolo della Libertà*, *Unione dei Democratici Cristiani e di Centro* and *Lega Nord.* In fact, these are the four top parties by number of votes (and seats in the Houses) which have been alternating in the majority/minority roles within the Parliament, in the considered period.

Moreover, it is possible to observe the president's relational intensity – normalized by government – with the representatives of the parties, be they leaders or members, during the seven-year term. In this case, the PoR's potential power appears to be inversely proportional to the strength of the parties in the government institutions: the higher their capacity to obtain stable and functional majorities – as in the case of the Berlusconi IV

government for which only 6 meetings are registered in the last year of presidency – the lower the PoR's potential power, and vice versa. See in this regard the peak of intensity registered during the Monti government with a total of 37 meetings in less than two years.

<INSERT FIGURE 9 HERE>

More in detail, the figure below (Fig. 10) shows the data relative to the number of meetings between the PoR and the parties which supported the government in the vote of confidence before the Houses (government), and the parties which instead opposed the establishment of the different governments in the seven-year period, thus remaining outside the formation of the executive (opposition).

<INSERT FIGURE 10 HERE>

The numbers show that the President had 15 meetings (27.7% of the total) with government parties, and 51 (77.3%) with opposition parties.

<INSERT FIGURE 11 HERE>

The above chart (Fig. 11) shows the intensity of the meetings between the PoR and the government and opposition parties, normalized by government duration (days). From a numerical point of view, during the Prodi II, 21 meetings – 9 with government parties and 12 with opposition parties – occur; during the Berlusconi IV a maximum peak is reached with 40 meetings – 34 with opposition and 6 with governmental parties; during the Monti government only 5 meetings take place, all of them with opposition parties. The empirical evidence shows that – while during the Prodi II there is a slight difference in the number of the PoR's meetings with government and opposition parties – during the Berlusconi IV there is a sharp imbalance in favour of the opposition parties. Once again, this finding may be ascribed to the *accordion action* of the president who prefers to express his power more towards the opposition during the governments led by cohesive and ideologically coherent majorities (Berlusconi IV); while in the case of governments with a weak majority in Parliament (Prodi II) he alternates his action in a more balanced way within the government/opposition polarity. In the case of the Monti government – whose executive did not include any party representatives in its ranks – the PoR does not express his potential power towards government parties, preferring, as already seen in the previous sections (Fig. 3 and Fig. 4), a *direct* relation with the executive power.

8. Conclusions

This exploratory and illustrative study is based on a paradigm – the power approach – that some scholars in political science consider obsolete. But hopefully it will open up new avenues for the empirical analysis of power, also at the comparative level.

As regards our substantive research questions, the empirical analysis has highlighted three aspects which characterised the first Napolitano Presidency (2006-2013).

First, as regards the analytical level of the *How*: Napolitano carried out his tasks through complex relations networks involving all the state powers. Some experts have included these relations within the analytical category of presidential soft powers. This study suggests that particular attention should be paid to them because they can be considered indicators of the PoR's potential power.

Secondly, considering the *Who*, Napolitano's potential power tended to focus on the decision-making centre of the political system, with a relational propensity that favoured the executive's members over the other government-parliament actors. Moreover, his potential power over these actors showed marked variability. While in some periods of the term the potential power of the president is more evident, in others it is less so. Some endogenous and/or exogenous factors probably affected his strategy of action between the

second and the third year of presidency. These may have to do with, for example, the change of the executive (Berlusconi IV), and/alternatively with the parliament composition (elections of 13-14 April 2008). In fact, while during the Prodi II government the party system was mainly a bipolar coalition system (because the two large coalitions were formed, on the one hand, by the *Unione* and, on the other, by the *Casa delle Libertà*), during the Berlusconi IV almost the entire political scene was dominated by two parties which resulted from the merger of a significant part of the previous coalitions: *Il Popolo della Libertà* (as an evolution of the *Casa delle Libertà*), and the *Partito Democratico* (as an evolution of the *Unione*). Political instability combined with the effects of a disruptive economic crisis changed the previous party balance of the political-institutional system, contributing to the emergence of new parties, which made their first appearance in Parliament after the elections of 24-25 February 2013 (Pasquino & Valbruzzi, 2013). In particular, Monti's government was supported by a large parliamentary majority with low or no ideological connotation and which included almost all parties, except for the *Lega Nord* and *Italia dei Valori*.

Thirdly, if we shift our focus to the *How much* of presidential power, it can be stated that Napolitano systematically restricted or expanded his potestative scope in terms of potential power in regard to both the governmental agenda (through interaction with the

executive leadership) and governmental policies (through interaction with the ministries and parliamentary committees' leaders). This highlights the president's capacity to play an active political role on a wide range of issues, at both politics and policy level, in close relation with the majoritarian tendencies of the parliamentary system, and the resources of the governmental political actors. In particular, the change of government that took place on 16 November 2011 – with the transition from the Berlusconi IV to Monti's government – could explain the increase of relations between Napolitano and the party representatives during the sixth year of his term. A similar relational intensification did not happen during the third year of his presidency, when the change from the Prodi II to the Berlusconi IV government took place after the political elections of 2008. This change of government seems unable to fully explain the expansion or reduction of presidential potential powers, which may instead be related to the strength of political parties in governmental institutions.

In regard to the *theoretical* contribution of this paper, the empirical analysis carried out in the crucial case study ultimately makes it possible to enhance the scholarly debate on the PoR by testing the current theories. In particular, the data obtained enabled us to analyse the dynamics of the so-called *presidential accordion* and gave the *relational theory* more convincing empirical evidence, with a further specification. It can be stated – for

hypothesis generation purposes – that the PoR's potential power tends to swing between two opposite roles: as *guarantor* of the will of the majority, and as *guarantor* of minorities and/or the opposition. The oscillation between these tendencies appears to be due to the strength or weakness of the governmental majorities.

As regards the *methodological* contribution of this paper, QNA helped us to conduct a quantitative measurement of the potential power by using – for the first time – the Diary of the Italian PoR as a source of data. We also employed some specific NLP techniques, such as/including RE and NER. In particular, for the latter we developed for the very first time an *ad-hoc* instrument for the Italian language, able to exploit the characteristics of the data contained in the Diary to automatically extract the names of the actors involved in each of the events concerning the PoR. We hope that we have been able to demonstrate that QNA helps the researcher to abandon a variable-centred approach in favour of an actor-centred one, though continuing to be based on a quantitative methodology. Furthermore, answers provided by our methodology about the PoR's power are different from those we could have found through statistical analyses of event counts.

Firstly, analyses based on event counts would not have allowed us to produce either the organ pipe charts of figures 3, 4, 6, 8, 11 (the PoR's relational *intensity* with different actors) or the egocentric network graphs of figures 2, 5, 7, 9 (the *frequency* of their

meetings on a specific *relational sphere of action*), since they do not consider the meaning of the interactions between the actors involved.

Secondly, the decision to use the QNA, combined with the SNA, contrary to the traditional kinds of statistical analysis of time series, has enabled us to assess short sampling periods, reducing the risk of masking intra-sample time variations.

Ultimately, QNA proved to be a reliable and effective methodology for the empirical analysis of power, and in particular, for the investigation of the potential power of the PoR.

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[1] Henceforth we will use the singular masculine pronoun *he* to refer to the PoR (instead of the form *s/he,* previously used throughout the text referring to the Italian Constitution) because in Italy, since 1948 to the present time, there have been no women elected as PoR.

[2] Important references to this approach, among political scientists, are the works of Duverger (1980) and Elgie (1996), although they refer to the French case, and therefore to the semi-presidential system of government.

[3] Available online at: http://presidenti.quirinale.it/elementi/Elenchi.aspx?tipo=Visita.

[4] Available online with a free license at: www.pc-ace.com.

[5] Not in all democratic states do presidential diaries – be they of heads of state, heads of government, or both – exist at the same level of detail and/or are available for public consultation. E.g., in the United States of America, where the research on the presidential agenda is for various reasons the state of art of this kind of empirical analysis (Edwards and Wayne 1990; Link and Kegley 2008), the presidents' diaries are available online at the website of the White House Historical Association: available at https://www.whitehousehistory.org/the-presidents-daily-diary. The level of detail of the diaries varies from president to president. In some cases, e.g. the presidents Nixon, Ford and Carter, those registers list minute by minute all contacts had by each president with other persons, including telephone appointments, in addition to face to face ones. In other cases, like the Eisenhower, Kennedy, Johnson presidencies, the level of detail and the diaries' completeness is lesser or is not extended to all years of their presidential term of office. For example, this is the case of President George H.W. Bush, for whom only the two-year period 1989-1990 is available. Lastly, the diaries of the presidents George W. Bush, Obama and Trump were still not available online at the time of the website consultation, while in regard to president Clinton only daily summaries including what the president intended to do and not only what he really did were available at the time of our visit.

[6] Napolitano is the first to have been elected twice as the Italian PoR (in 2006 and 2013). He was elected for the first time on 10 May 2006, with a majority of 543 votes out of 1009 election assembly members. He obtained the votes of the representatives of centre-left parties, which at the time had entered into the *Unione* (Author's own 2014b, 562). He has been senator for life since 2005, and he was previously an elected member of the parliament (1953-1996), president of the Chamber of Deputies (1992-1994), Minister of the Interior (1996-1998), and member of the European Parliament (1999-2004).

[7] Scraping is a process used to extract information from web pages. We developed an *ad-hoc* script for this task. In particular, we used the *wget* tool to download the data from the Web at specified URLs.

[8] NLP is a research sector of computer science, artificial intelligence and computational linguistics dealing with human-machine interactions and, in particular, the processing of natural language data.

[9] In relation to the project's significance on the basis of the semantic triplets obtained see Franzosi (2010, 139-140).

[10] E.g., if the actor was part of a majority or minority group in the Italian parliament, which was obtainable only through consultation of information exogenous with respect to that contained in the Diary.

[11] The reader is advised that, because in our coding scheme the *What* consists in the action of each presidential meeting, it is considered to be an *implicit constant* of the research (it is simply always *meet*). Hence, for this reason, the *What* will be skipped in what follows of our description.

[12] During Napolitano's first term of office, three governments followed each other. The Prodi government remained in office 734 days, from 6 May 2006 to 8 May 2008. The Berlusconi IV government was in office 1288 days from 8 May 2008 to 16 November 2011. The Monti government remained in office 530 days, from 16 November 2011 to 28 April 2013.

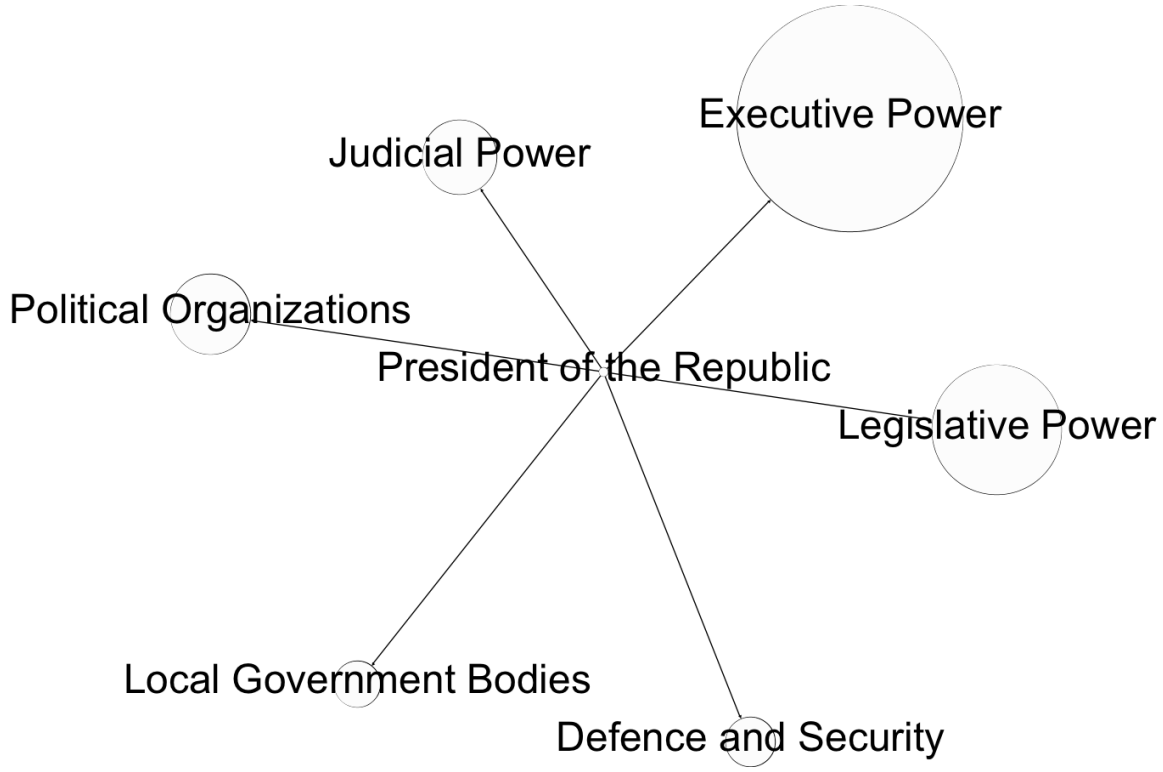
[13] In the case of the Minister of Foreign Affairs and International Cooperation – in addition to the post of minister, deputy minister and undersecretary – also the post of secretary general was considered.

Fig. 1: *Example of semantic triplet extracted from the PoR's Diary (second record in Tab. 1).*

(**Event**:
    (**Subject**: Presidente della Repubblica),
    (**Verb**: incontra),
    (**Object**: On. Silvio BERLUSCONI),
    (**Domestic Politics**:
        (**Political Organizations:**
            (**Political Parties**: Leader di partito),
            (**Government**: Prodi II),
            (**Parliamentary/Extra-parliamentary**: Parlamentare),
            (**Government/Opposition**: Opposizione),
            (**Majority/Minority**: Minoranza),
            (**Party Name**: Forza Italia)
        ),
        (**Legislative Power**:
            (**Chamber of Deputies**: Leader del gruppo di minoranza)
)
    ),
    (**Date**: 7 Giugno 2008),
    (**Location**: Palazzo del Quirinale)
)

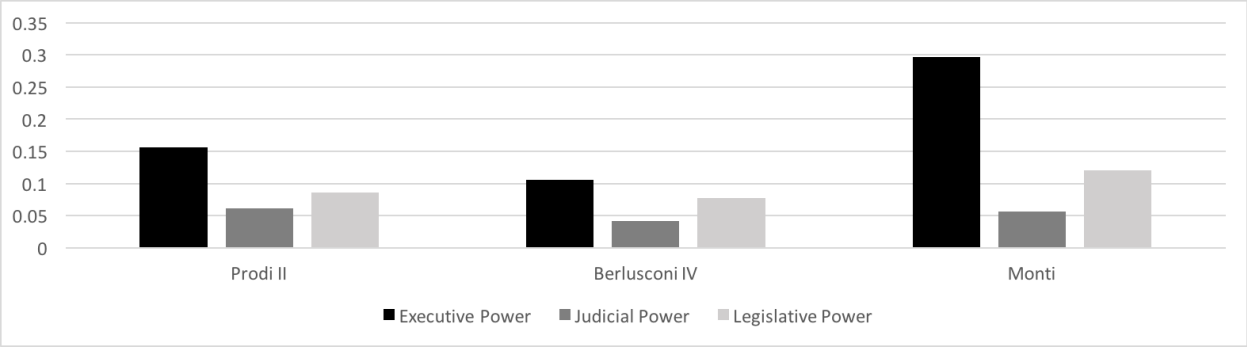
Source: *own data processing.*

Fig. 2: *PoR's meetings with the main institutional actors (2006-2013).*



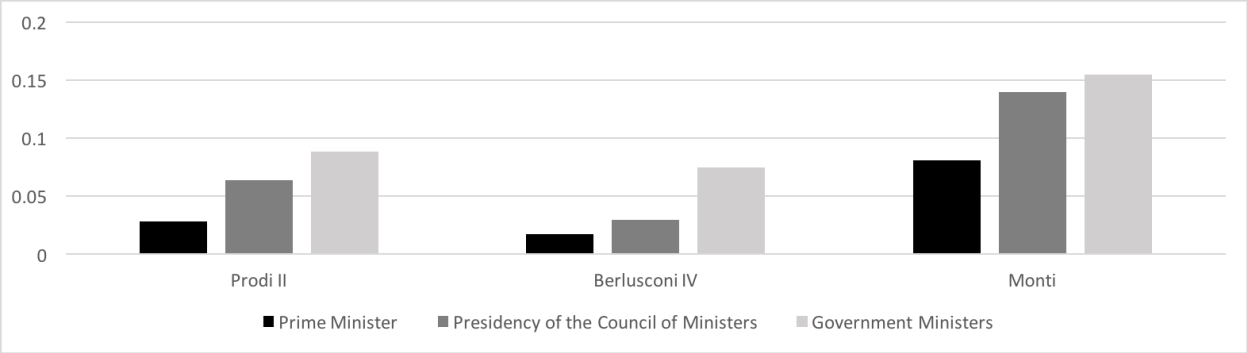
Source: *own data processing*. **Image:** *PC-ACE.*

Fig. 3: *PoR's meetings with the Executive, Legislative and Judiciary powers, normalized by government (2006-2013).*



Source: *own data processing.* **Image:** *PC-ACE.*

Fig. 4: *PoR's meetings with the Prime Minister, Presidency of the Council of Ministers and Government Ministers, normalized by government (2006-2013).*

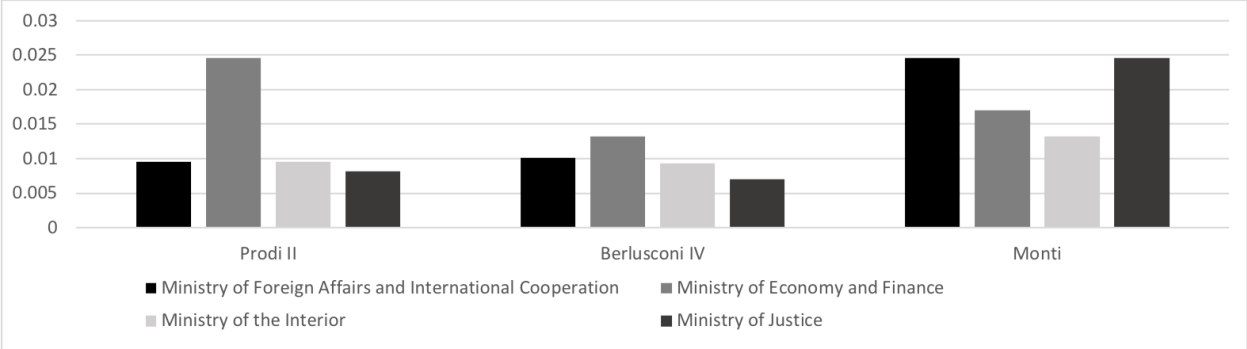


Source: *own data processing*. **Image:** *PC-ACE.*

Fig. 5: *PoR's meetings with Government Ministries.*

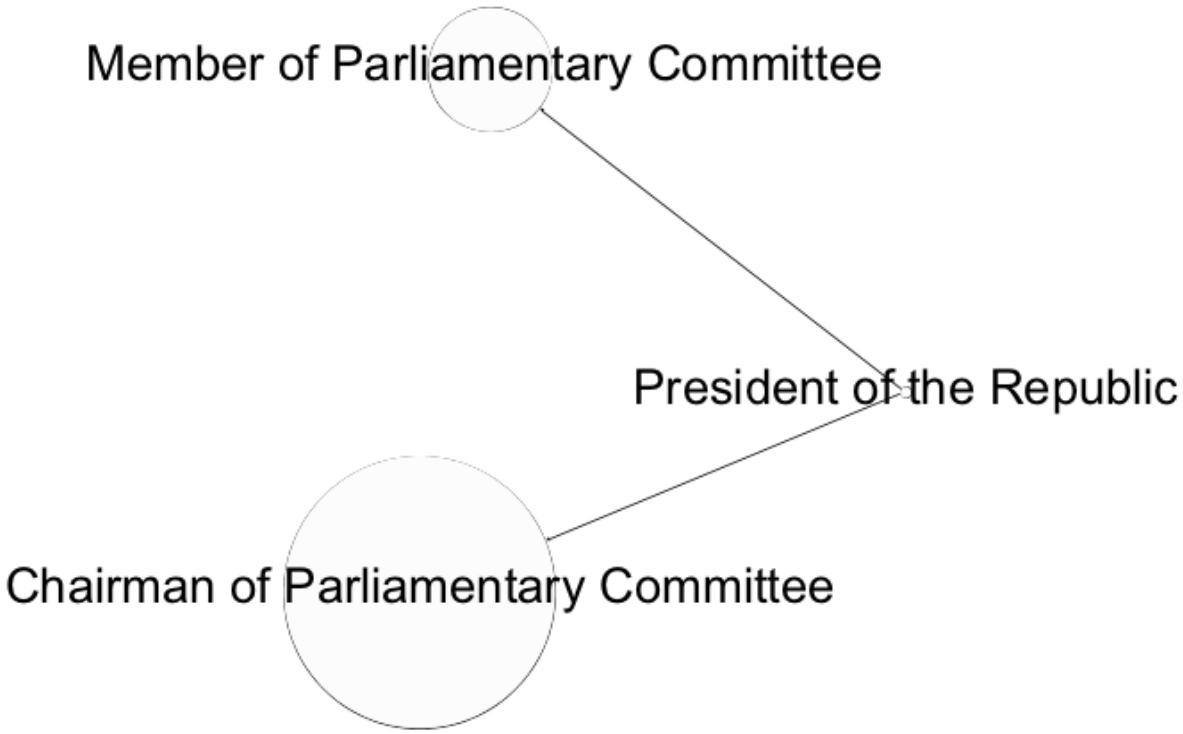
Source: *own data processing*. **Image:** *PC-ACE.*

Fig. 6: *PoR's meetings with Government Ministries, normalized by government (2006-2013).*



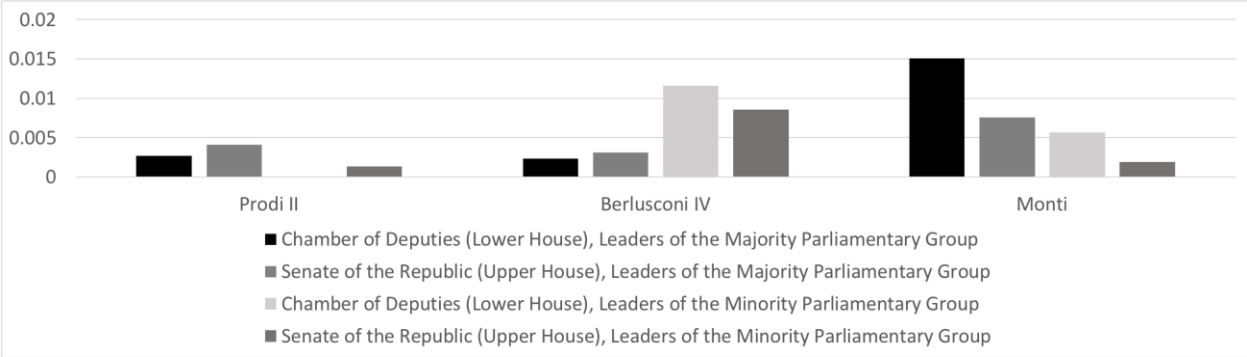
Source: *own data processing*. **Image:** *PC-ACE.*

Fig. 7: *PoR's meetings with Chairman and Members of Parliamentary Committee (2006-2013).*



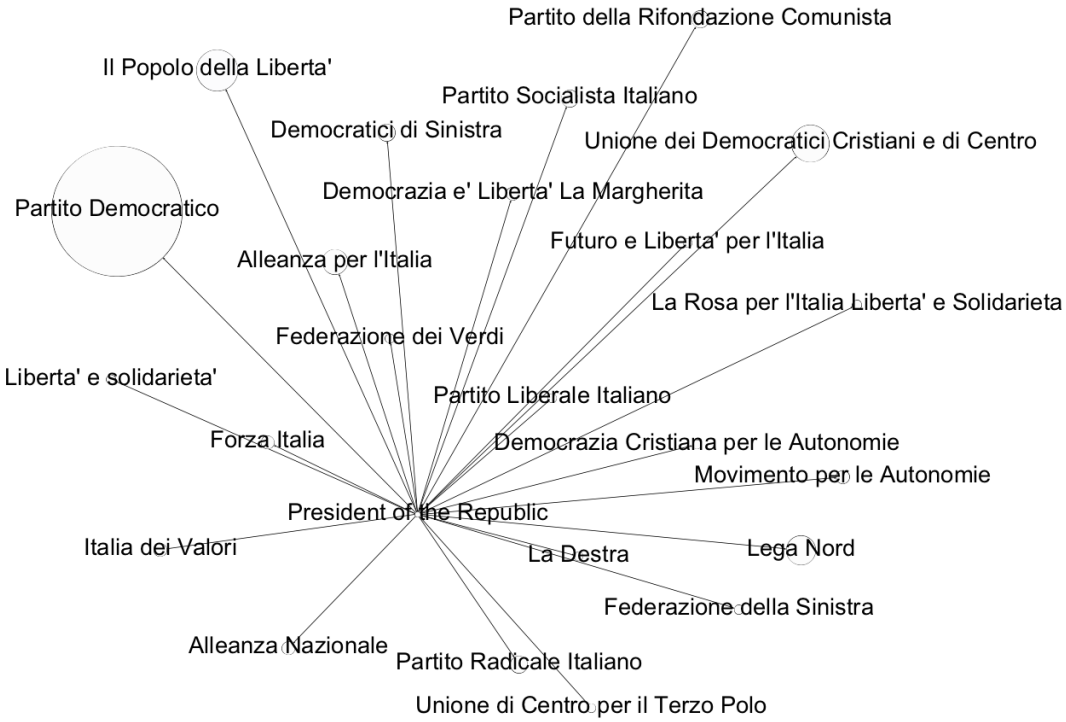
Source*: own data processing.* **Image***: PC-ACE.*

Fig. 8: *PoR's meetings with the Leaders of the Majority and of the Minority Parliamentary Group in both Houses, normalized by government (2006-2013).*



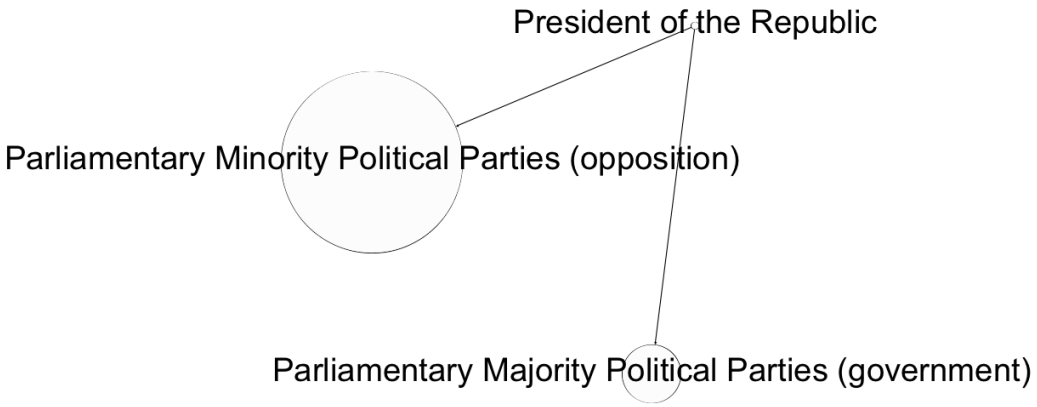
Source: *own data processing*. **Image:** *PC-ACE.*

Fig. 9: *PoR's meetings with political parties (2006-2013).*



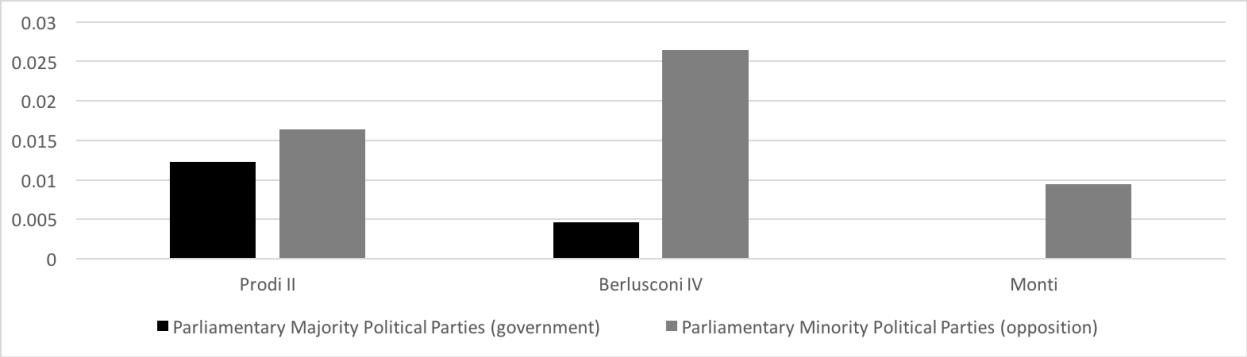
Source: *own data processing*. **Image:** *PC-ACE.*

Fig. 10: *PoR's meetings with Parliamentary Majority and Minority Political Parties (2006-2013).*



Source: *own data processing*. **Image:** *PC-ACE.*

Fig. 11: *PoR's meetings with Parliamentary Majority and Minority Political Parties, normalized by government (2006-2013).*



Source: *own data processing.* **Image:** *PC-ACE.*

Tab. 1: *Sample extracted from the PoR's Diary.*

Data ***(Date)***	**Luogo** ***(Location)***	**Descrizione** ***(Description)***
30 Maggio 2006	Palazzo del Quirinale	On. Sen. Franco MARINI, Presidente del Senato della Repubblica, e On. Fausto BERTINOTTI, Presidente della Camera dei Deputati
7 Giugno 2008	Palazzo del Quirinale	On. Silvio BERLUSCONI, Presidente di Forza Italia

Source: http://presidenti.quirinale.it/elementi/Elenchi.aspx?tipo=Visita.

attachment to manuscript

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Appendix I

Examples of semantic triplets extracted from the PoR's Diary:

(**Event**:
(**Subject**: Presidente della Repubblica),
(**Verb**: Incontra),
(**Object**: On. Sen. Franco MARINI),
(**Domestic Politics**:
(**Political Organizations:**
(**Political Parties**: Leader di partito),
(**Government**: Prodi II),
(**Parliamentary/Extra-parliamentary**: Parlamentare),
(**Government/Opposition**: Governativo),
(**Majority/Minority**: Maggioranza),
(**Party Name**: Partito Democratico)
),
(**Legislative Power**:
(**Senate of the Republic**: Presidente del Senato della Repubblica)
)
),
(**Date**: 30 Maggio 2006),
(**Location**: Palazzo del Quirinale)
)

(**Event**:
(**Subject**: Presidente della Repubblica),
(**Verb**: incontra),
(**Object**: On. Fausto BERTINOTTI),
(**Domestic Politics**:
(**Political Organizations:**
(**Political Parties**: Leader di partito),
(**Government**: Prodi II),
(**Parliamentary/Extra-parliamentary**: Parlamentare),
(**Government/Opposition**: Governativo),
(**Majority/Minority**: Maggioranza),
(**Party Name**: Rifondazione Comunista)
),
(**Legislative Power**:
(**Chamber of Deputies**: Presidente della Camera dei Deputati)
)
),
(**Date**: 30 Maggio 2006),
(**Location**: Palazzo del Quirinale)
)

(**Event**:
(**Subject**: Presidente della Repubblica),
(**Verb**: incontra),
(**Object**: On. Silvio BERLUSCONI),
(**Domestic Politics**:

(**Political Organizations:**
(**Political Parties**: Leader di partito),
(**Government**: Prodi II),
(**Parliamentary/Extra-parliamentary**: Parlamentare),
(**Government/Opposition**: Opposizione),
(**Majority/Minority**: Minoranza),
(**Party Name**: Forza Italia)
),
(**Legislative Power**:
(**Chamber of Deputies**: Leader del gruppo di minoranza)
)
),
(**Date**: 7 Giugno 2008),
(**Location**: Palazzo del Quirinale)
)

Appendix II

In the following tables (1-6), we report the labels used in the figures of the manuscript in order to provide a correspondence with the original institution names in Italian language. This choice was made in order to prevent misleading translations of the labels, which often refer to institutions, or entities that are unique for the Italian political system, and to facilitate the reproducibility of our research in other languages than English and Italian. Finally, in all the figures, "Presidente della Repubblica" has always been translated as "President of the Republic" (PoR).

Italian Institution Names	**Labels reported in figures 1 and 2**
Difesa e Sicurezza	Defense and Security
Esecutivo	Executive Power
Giudiziario	Judicial Power
Legislativo	Legislative Power
Organi di Governo Territoriale	Local Government Bodies
Organizzazioni Politiche	Political Organizations

Tab. 1A: *Original coding scheme and labels reported in figures 1 and 2.*

Italian Institution Names	**Labels reported in figure 3**
Ministeri	Government Ministers
Presidenza del Consiglio dei Ministri	Presidency of the Council of Ministers
Primo Ministro	Prime Minister

Tab. 2A: *Original coding scheme and labels reported in figure 3.*

Italian Institution Names	**Labels reported in figures 4 and 5**
Ministero degli Affari Esteri e della Cooperazione Internazionale	Ministry of Foreign Affairs and International Cooperation
Ministero degli Affari Regionali e Autonomie	Ministry for Regional Affairs and Autonomies
Ministero dei Beni e delle Attività Culturali e del Turismo	Ministry of Cultural Heritage and Tourism
Ministero del Lavoro e delle Politiche Sociali	Ministry of Labour and Social Policy
Ministero dell'Ambiente e della Tutela del Territorio e del Mare	Ministry for the Environment and the Protection of Natural and Marine Resources
Ministero dell'Economia e Finanza	Ministry of Economy and Finance
Ministero dell'Interno	Ministry of the Interior
Ministero dell'Istruzione, dell'Università e della Ricerca	Ministry of Education, University and Research

Ministero della Difesa	Ministry of Defense
Ministero della Giustizia	Ministry of Justice
Ministero della Salute	Ministry of Health
Ministero delle Infrastrutture e dei Trasporti	Ministry for Infrastructure and Transport
Ministero delle Politiche Agricole, Alimentari e Forestali	Ministry of Agriculture, Food and Forestry
Ministero dello Sviluppo Economico	Ministry of Economic Development
Ministero per la Semplificazione e la Pubblica Amministrazione	Ministry for Public Administration and Simplification
Ministero per le Riforme Costituzionali e lo Sviluppo Economico	Ministry for Constitutional Reforms and Parliamentary Relations

Tab. 3A: *Original coding scheme and labels reported in figures 4 and 5.*

Italian Institution Names	**Labels reported in figure 6**
Membro di Commissione Parlamentare	Member of Parliamentary Committee
Presidente di Commissione Parlamentare	Chairman of Parliamentary Committee

Tab. 4A: *Original coding scheme and labels reported in figure 6.*

Italian Institution Names	**Labels reported in figure 7**
Camera dei Deputati, Leader del Gruppo di Maggioranza/Minoranza	Chamber of Deputies (Lower House), Leaders of the Majority/Minority Parliamentary Group
Senato della Repubblica, Leader del Gruppo di Maggioranza/Minoranza	Senate of the Republic (Higher House), Leaders of the Majority/Minority Parliamentary Group

Tab. 5A: *Original coding scheme and labels reported in figure 7.*

Italian Institution Names	**Labels reported in figure 9 and 10**
Maggioranza	Parliamentary Majority Political Parties (Government)
Opposizione	Parliamentary Minority Political Parties (Opposition)

Tab. 6A: *Original coding scheme and labels reported in figures 9 and 10.*

Appendix III

In the following table (Tab. 7), we report the names of the considered ministries as they possibly change under different governments (2006-2013). We decided to aggregate different labelled ministries referring to the same policy area under the same label in our coding scheme (the labels are shown in detail in Appendix IV), reporting here all of the names used in the Diary to refer to them.

Coding scheme entries	Ministry Names	Government	Notes
Ministero degli Affari Esteri e della Cooperazione Internazionale	Ministero degli Affari Esteri	Prodi II	
	Ministero degli Affari Esteri	Berlusconi IV	
	Ministero degli Affari Esteri	Monti	
	Ministero degli Affari Esteri e della Cooperazione Internazionale	Letta	Not included in the present research
Ministero degli Affari Regionali e Autonomie	Ministero per gli Affari Regionali e Autonomie Locali	Prodi II	
	Ministero per i Rapporti con le Regioni e Coesione Territoriale	Berlusconi IV	
	Ministero per gli Affari Regionali, Turismo e Sport	Monti	
	Ministero degli Affari Regionali e Autonomie	Letta	Not included in the present research
Ministero dei Beni e delle Attività Culturali e del Turismo	Ministero dei Beni e delle Attività Culturali	Prodi II	With delegation to Ministero del Turismo
	Ministero dei Beni e Attività Culturali	Berlusconi IV	
	Ministero del Turismo	Berlusconi IV	
	Ministero dei Beni e Attività Culturali	Monti	
	Ministero dei Beni e	Letta	Not included in the

	delle Attività Culturali e del Turismo		present research
Ministero del Lavoro e delle Politiche Sociali	Ministero del Lavoro e Previdenza Sociale	Prodi II	
	Ministero delle Politiche per la Famiglia	Prodi II	
	Ministero per le Politiche Giovanili e Attività Sportive	Prodi II	
	Ministero per la Solidarietà Sociale	Prodi II	
	Ministero per la Gioventù	Berlusconi IV	
	Ministero del Lavoro, Salute e Politiche Sociali	Berlusconi IV	
	Ministero del Lavoro e delle Politiche Sociali	Berlusconi IV	
	Ministero del Lavoro e delle Politiche Sociali	Monti	With delegation to Ministero delle Pari Opportunità
	Ministero del Lavoro e delle Politiche Sociali	Letta	Not included in the present research
Ministero dell'Economia e Finanze	Ministero dell'Economia e Finanze	Prodi II	
	Ministero dell'Economia e Finanze	Berlusconi IV	
	Ministero dell'Economia e Finanze	Monti	
	Ministero dell'Economia e Finanze	Letta	Not included in the present research
Ministero dell'Interno	Ministero dell'Interno	Prodi II	
	Ministero dell'Interno	Berlusconi IV	
	Ministero dell'Interno	Monti	

	Ministero dell'Interno	Letta	Not included in the present research
Ministero dell'Ambiente e Tutela del Territorio e del Mare	Ministero dell'Ambiente e Tutela del Territorio e del Mare	Prodi II	
	Ministero dell'Ambiente e Tutela del Territorio e del Mare	Berlusconi IV	
	Ministero dell'Ambiente e Tutela del Territorio e del Mare	Monti	
	Ministero dell'Ambiente e Tutela del Territorio e del Mare	Letta	Not included in the present research
Ministero dell'Istruzione, dell'Università e della Ricerca	Ministero dell'Università e Ricerca	Prodi II	
	Ministero dell'Istruzione	Prodi II	
	Ministero dell'Istruzione, Università e Ricerca	Berlusconi IV	
	Ministero dell'Istruzione, Università e Ricerca	Monti	
	Ministero dell'Istruzione, dell'Università e della Ricerca	Letta	Not included in the present research
Ministero della Difesa	Ministero della Difesa	Prodi II	
	Ministero della Difesa	Berlusconi IV	
	Ministero della Difesa	Monti	
	Ministero della Difesa	Letta	Not included in the present research
Ministero della Giustizia	Ministero della Giustizia	Prodi II	

	Ministero della Giustizia	Berlusconi IV	
	Ministero della Giustizia	Monti	
	Ministero della Giustizia	Letta	Not included in the present research
Ministero della Salute	Ministero della Salute	Prodi II	
	Ministero del Lavoro, Salute e Politiche Sociali	Berlusconi IV	
	Ministero della Salute	Berlusconi IV	
	Ministero della Salute	Monti	
	Ministero della Salute	Letta	Not included in the present research
Ministero delle Infrastrutture e dei Trasporti	Ministero delle Infrastrutture	Prodi II	
	Ministero dei Trasporti	Prodi II	
	Ministero delle Infrastrutture e Trasporti	Berlusconi IV	
	Ministero delle Infrastrutture e Trasporti	Monti	
	Ministero delle Infrastrutture e dei Trasporti	Letta	Not included in the present research
Ministero delle Politiche Agricole, Alimentari e Forestali	Ministero delle Politiche Agricole, Alimentari e Forestali	Prodi II	
	Ministero per le Politiche Agricole e Forestali	Berlusconi IV	
	Ministero delle Politiche Agricole, Alimentari e Forestali	Berlusconi IV	
	Ministero delle Politiche Agricole, Alimentari e Forestali	Monti	

	Ministero delle Politiche Agricole, Alimentari e Forestali	Letta	Not included in the present research
Ministero dello Sviluppo Economico	Ministero dello Sviluppo Economico	Prodi II	
	Ministero del Commercio Internazionale	Prodi II	Incorporation with Ministero dello Sviluppo Economico
	Ministero della Comunicazione	Prodi II	Incorporation with Ministero dello Sviluppo Economico
	Ministero dello Sviluppo Economico	Berlusconi IV	
	Ministero dello Sviluppo Economico	Monti	
	Ministero dello Sviluppo Economico	Letta	Not included in the present research
Ministero per la Semplificazione e la Pubblica Amministrazione	Ministero per le Riforme e Innovazione nella Pubblica Amministrazione	Prodi II	
	Ministero per la Pubblica Amministrazione e Innovazione	Berlusconi IV	
	Ministero per la Semplificazione Normativa	Berlusconi IV	
	Ministero per la Pubblica Amministrazione e Semplificazione	Monti	With delegation to Ministero delle Riforme Istituzionali
	Ministero per la Semplificazione e la Pubblica Amministrazione	Letta	Not included in the present research
Ministero per le Riforme Costituzionali e i Rapporti con il	Ministero per i Rapporti con il Parlamento e le Riforme Istituzionali	Prodi II	

Parlamento			
	Ministero per i Diritti e Pari Opportunità	Prodi II	
	Ministero per l'Attuazione del Programma di Governo	Prodi II	
	Ministero per le Riforme e il Federalismo	Berlusconi IV	
	Ministero per la Sussidiarietà e Decentramento	Berlusconi IV	
	Ministero per i Rapporti con il Parlamento	Berlusconi IV	
	Ministero per l'Attuazione del Programma di Governo	Berlusconi IV	
	Ministero per le Pari Opportunità	Berlusconi IV	
	Ministero per i Rapporti con il Parlamento	Monti	
	Ministero per le Riforme Costituzionali e i Rapporti con il Parlamento	Letta	Not included in the present research

Tab. 7A: *Index of the names of the ministries during each government under the period of consideration (2006-2013), and of the labels used in our coding scheme (see Appendix IV).*

Appendix IV

In the following scheme are reported in bold all the recognized categories at different aggregation levels used in the data coding stage. The terms not in bold represent the values which can be added under each category.

(**Event**:
(**Subject**: Presidente della Repubblica),
(**Verb**: Incontra),
(**Object**: «Nome della persona o dell'istituzione che il Presidente incontra»),
(**Domestic Politics**:
(**Political Organizations**: (**Foundations**: Presidente di fondazione, Membri di fondazione), (**Political Movements**: Leader di movimento politico, Membri di movimento politico, Comitato), (**Political Parties**: Leader di partito, Membri di partito), (**Government**: Prodi II, Berlusconi IV, Monti), (**Parliamentary/Extra-**

parliamentary: Parlamentare, Extraparlamentare), (**Government/Opposition**: Governativo, Opposizione), (**Majority/Minority**: Maggioranza, Minoranza), (**Party Name**: Alleanza Nazionale, Alleanza per l'Italia, Democratici di Sinistra, Democrazia Cristiana per le Autonomie, Democrazia e Libertà La Margherita, Federazione dei Verdi, Federazione della Sinistra, Forza Italia, Futuro e Libertà per l'Italia, Il Popolo della Libertà, Italia dei Valori, La Destra, La Rosa per l'Italia Libertà e Solidarietà, Lega Nord, Libertà e solidarietà, Movimento per le Autonomie, Partito della Rifondazione Comunista, Partito Democratico, Partito Liberale Italiano, Partito Radicale Italiano, Partito Socialista Italiano, Unione dei Democratici Cristiani e di Centro, Unione di Centro per il Terzo Polo))),

(**Executive Power**: (**Presidency of the Council of Ministries**: Primo ministro, Primo ministro incaricato, Sottosegretario alla presidenza del consiglio, Vice presidente del consiglio, Organo consultivo), (**Ministries**: Ministero dell'interno, Ministero degli affari esteri e della cooperazione internazionale, Ministero della difesa, Ministero della giustizia, Ministero dell'economia e finanze, Ministero delle infrastrutture e dei trasporti, Ministero dell'ambiente e tutela del territorio e del mare, Ministero del lavoro e delle politiche sociali, Ministero per le riforme costituzionali e i rapporti con il parlamento, Ministero per la semplificazione e la pubblica amministrazione, Ministero dell'istruzione, dell'università e della ricerca, Ministero della salute, Ministero dei beni e delle attività culturali e del turismo, Ministero degli affari regionali e autonomie, Ministero dello sviluppo economico, Ministero delle politiche agricole, alimentari e forestali, Segretario generale, Vice Ministro, Sottosegretari)),

(**Legislative Power**: (**Chamber of Deputies**: Presidente della camera dei deputati, Vice presidente della camera dei deputati, Leader del gruppo di maggioranza, Leader del gruppo di minoranza, Deputato, Presidente di commissione parlamentare, Membro di commissione parlamentare, Intergruppo parlamentare, Questore, Ufficio di presidenza), (**Senate of the Republic**: Presidente del senato della Repubblica, Vice presidente del senato della Repubblica, Leader del gruppo di maggioranza, Leader gruppo di minoranza, Senatore a vita nominato da altro presidente, Senatore a vita nominato da presidente in carica, Senatore a vita ex presidente della Repubblica, Senatore, Presidente di commissione parlamentare, Membro di commissione parlamentare, Intergruppo parlamentare, Questore, Ufficio di presidenza)),

(**Judicial Power**: (**Superior Council of Magistracy**: Vice presidente del consiglio superiore della magistratura, Membro del consiglio superiore della magistratura), (**State Council**: Presidente del consiglio di stato, Membro del consiglio di stato, Presidente emerito del consiglio di stato), (**Court of Auditors**: Presidente della corte dei conti, Membro della corte dei conti, Procuratore generale della corte dei conti), (**Constitutional Court**: Presidente della corte costituzionale, Membro della corte costituzionale, Presidente emerito della corte costituzionale, Vice presidente emerito della corte costituzionale), (**Court of Cassation**: Primo presidente della corte di cassazione, Primo presidente aggiunto della corte di cassazione, Presidente aggiunto della corte di cassazione, Procuratore generale della corte di cassazione, Procuratore generale militare della corte di cassazione, Procuratore nazionale antimafia, Procuratore generale aggiunto della corte di cassazione, Membro della corte di cassazione), (**Presidente del consiglio nazionale forense**: Avvocato generale dello stato), (**Ordinary Court**: Presidente del tribunale, Procuratore della Repubblica),

(**Appeal Court**: Procuratore generale della corte d'appello, Presidente della corte d'appello), (**National Association of Magistrates**: Presidente dell'associazione nazionale magistrati), (**Council of Tax Courts**: Presidente del consiglio di presidenza della giustizia tributaria), (**Union of Penal Chambers**: Presidente dell'unione camere penali), (**Organismo Unitario Avvocatura Italiana**: Presidente dell'organismo unitario avvocatura italiana), (**Regional Administrative Court**: Presidente del tribunale amministrativo regionale, Membro del tribunale amministrativo regionale, Presidente emerito del tribunale amministrativo regionale)),

(**Defense and Security**: (**Armed Forces**: Aeronautica militare, Esercito italiano, Marina militare), (**Police Forces**: Polizia di stato, Polizia penitenziaria, Corpo forestale dello stato, Corpo nazionale dei vigili del fuoco, Corpo delle capitanerie di porto, Arma dei carabinieri, Guardia di finanza), (**Control and Coordination Units**: Comando supremo militare italiano, Consiglio supremo di difesa, Stato maggiore della difesa, Protezione civile, Comitato parlamentare per la sicurezza della Repubblica, Segretario generale della difesa), (**Information Agency for the Security of the Republic**: Dipartimento delle informazioni per la sicurezza (from 2008), Agenzia informazioni e sicurezza esterna (from 2008), Agenzia informazioni e sicurezza interna (from 2008), Sevizi segreti (only 2006-2007)))),

(**Local Government Bodies**: (**Regional**: Regione, Presidente della regione, Consiglieri regionali, Membri giunta regione, Presidente consiglio regionale), (**Local**: Provincia, Presidente della provincia, Consiglieri provinciali, Membri giunta provinciale, Presidente del consiglio provinciale, Comune, Sindaco, Consiglieri comunali, Membri di giunta comunale, Presidente consiglio comunale, Città metropolitana, Sindaco città metropolitana, Consigliere città metropolitana, Membro conferenza metropolitana, Circoscrizione, Presidente di circoscrizione, consigliere di circoscrizione), (**Territorial Offices of the Government:** Prefetto, Questore, Comando vigili del fuoco), (**Territorial Coordination Bodies**: Presidente ANCI, Presidente coordinamento territoriale regionale, Presidente coordinamento provinciale)),

),

(**Foreign Policy**:

(**States**: Capo di stato, (**President of the Republic:** Capo di governo, Non capo di governo), (**Prime Minister**: Capo di stato, Non capo di stato), (**Monarch**: Capo di governo, Non capo di governo), Ministro degli esteri di stato estero, Altro ministro di stato estero, (**Ambassador or Other Diplomatic Representative from a Foreign State**: Ambasciatore, Console), Membro del corpo diplomatico statale, Presidente del parlamento di stato estero, Rappresentante potere legislativo di stato estero, Leader partito o movimento di stato estero),

(**International Organizations**: (**European Union Representative**: Presidente dell'unione europea, Presidente della commissione europea, Commissario europeo, Presidente della corte europea dei diritti dell'uomo, Presidente del parlamento europeo, Parlamentare europeo, Componente commissione parlamento europeo, Componente gruppo parlamentare europeo, Presidente della banca centrale europea, Leader di movimento o di partito politico europeo, Presidente dell'assemblea parlamentare del consiglio d'Europa, Segretario generale del consiglio d'Europa, Presidente del consiglio europeo, Presidente della banca europea per gli investimenti), (**ONU Representative**: Segretario generale dell'ONU),

(**International Monetary Fund Representative**: Presidente del FMI), (**World Bank Representative**: Presidente della banca mondiale), (**OCSE Representative**: Presidente dell'assemblea parlamentare dell'OCSE), (**NATO Representative**: Segretario generale della NATO), Rappresentante altre organizzazioni internazionali non governative),

(**Churches/Confessions**: (**Head of Church**: Capo dello stato, Non capo dello stato), (**Member of Ecclesiastical Organization**: Membro diplomazia, Non membro della diplomazia))

),

(**Date**: «Date of Event»),

(**Location**: «Place of Event»)

).

Appendix V

The parser used to process the data in the Diary was written in Java and performed all the tasks necessary to identify the names and the roles of the actors with whom the President of the Republic interacts. In order to do so, we wrote a few regular expressions to identify the surnames of the actors and a few simple rules like "the name of a person always precedes his/her surname" or "the role of an actor always follows his/her name". These and a few more rules, combined with the regular writing style of the Diary, allowed us to extract the information from the data with great accuracy. For this extremely domain-specific research in fact, we could not employ other pre-trained models for NER such as the ones available in Spacy (https://spacy.io/models/it). In fact, these models are trained on very general domains such as Wikipedia articles or news; and to identify only the most popular named-entity categories such as dates, location names etc. In order to employ these models for our task, we would have had to re-train them on our domain-specific corpus. Furthermore, to perform the training, we would have had to create a large set (thousands) of labelled training samples featuring the named-entity labels that we employ in our research but were missing in the public model (i.e. the roles of political actors). For the above reasons, we opted for the development of an *ad-hoc* and simpler tool for NER.

The source code of our task- and domain-specific approach for NER is available on GitHub at: <link removed for the anonymity of the review>.