

CEP Discussion Paper No 1475

April 2017

The Political Legacy of Entertainment TV

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Abstract

We study the political impact of entertainment television in Italy exploiting the staggered introduction of Berlusconi's commercial TV network, Mediaset, in the early 1980s. We find that individuals with early access to Mediaset all-entertainment content were more likely to vote for Berlusconi's party in 1994, when he first ran for office. The effect persists for five elections and is driven by heavy TV viewers, namely the very young and the elders. Regarding possible mechanisms, we find that individuals exposed to entertainment TV as children were less cognitively sophisticated and civic-minded as adults, and ultimately more vulnerable to Berlusconi's populist rhetoric.

Keywords: entertainment TV, voting, cognitive abilities, civic engagement
JEL codes: L82; D72; Z13

This paper was produced as part of the Centre's Communities Programme. The Centre for Economic Performance is financed by the Economic and Social Research Council.

Acknowledgements

We thank Alberto Alesina, Filipe Campante, Antonio Ciccone, Stefano DellaVigna, Ruben Enikolopov, Ray Fisman, Greg Huber, Brian Knight, Valentino Larcinese, Marco Manacorda, Torsten Persson, Barbara Petrongolo, Andrei Shleifer, Francesco Sobbrino, Joachim Voth, David Weil, Katia Zhuravskaya, and seminar participants at Bocconi, CREI, NYU, MIT, Sciences Po, Brown, Dartmouth, Sorbonne, WZB, Surrey, Queen Mary, Yale, EIEF, LSE, Namur, Bank of Italy, Warwick, and participants at the AEA Meetings, the EUI Conference on Communications and Media Markets, and the Lisbon Meeting on Institutions and Political Economy for helpful comments. We are very grateful to Ben Olken and Ruben Enikolopov for their help with the ITM software. We thank Nicola D'Amelio and Giuseppe Piraino for their assistance with data collection and Laura Litvine for her outstanding help with the digitalization of the transmitters data. Ruben Durante is grateful to the Sciences Po Scienti_c Board for _nancial support. A previous version of this paper circulated with the title *Voting Alone? The Political and Cultural Consequences of Commercial TV*.

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Published by
Centre for Economic Performance
London School of Economics and Political Science
Houghton Street
London WC2A 2AE

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1 Introduction

There is extensive evidence that exposure to biased news on TV can influence viewers' voting decisions (DellaVigna and Kaplan, 2007; Enikolopov et al., 2011). News programs represent, however, just a fraction of total TV airtime,¹ and other types of content may also influence viewers' attitudes. Indeed, previous research indicates that, by priming particular cultural models, light entertainment shows, soap operas, and advertising can have important and persistent effects on various types of non-political behavior, such as civic engagement, gender attitudes, and consumption choices (Putnam, 2000; Olken, 2009; Jensen and Oster, 2009; Bursztyjn and Cantoni, 2012).² In addition, there is evidence that exposure to television at a young age can influence cognitive skills, though with opposite effects for educational and entertainment programs (Gentzkow and Shapiro, 2008; Ennemoser and Schneider, 2007; Kearney and Levine, 2015).

In this paper we show that entertainment TV can also influence political attitudes. We study this question exploiting the staggered expansion of Silvio Berlusconi's commercial TV network, Mediaset, across Italian municipalities in the 1980s. In particular, we compare similar municipalities that were exposed to Mediaset channels before and after 1985, and analyze differences in voting outcomes over the following three decades. Crucially, in the early stages of the diffusion of Mediaset, when some areas had access to the network and others did not, Mediaset channels were entirely devoted to light entertainment programs. Newscasts were only introduced in 1991, when access to the network was virtually ubiquitous. Hence, this episode provides a unique opportunity to isolate the effect of entertainment TV.

Our empirical analysis exploits unique data on the location and technical characteristics of Mediaset transmitters active in 1985. These transmitters were inherited from a multitude of local TV stations that were progressively incorporated into the network in the early 1980s, more than a decade before Berlusconi entered politics. It is therefore unlikely that their location was directly functional to Berlusconi's later political ambitions. Nonetheless, it is possible that Mediaset coverage in 1985 may have been correlated with other local characteristics that could affect electoral outcomes in ways other than through TV. To address this concern, following previous work by Olken (2009), we regress our outcomes of interest on Mediaset signal strength controlling for the hypothetical signal strength in the absence of geomorphological obstacles, for various terrain characteristics, and for both electoral district and local labor market fixed effects. Hence, we identify the effect from the residual variation in signal strength due to idiosyncratic geographic factors within narrow areas, which is uncorrelated with both past electoral outcomes and

¹According to the 2010 CRE Video Consumer Mapping Study, Americans devote only 18.2% of their total watching time to news, compared to 46.8% to entertainment programs and 21.8% to advertising.

²For a comprehensive survey of previous work on the social and economic impact of mass media, see DellaVigna and La Ferrara (2016).

a wide range of municipal characteristics.³

We find that municipalities exposed to Mediaset prior to 1985 displayed higher support for Berlusconi’s party, *Forza Italia*, when he first ran for election in 1994, compared to municipalities that were exposed only later on. This effect is non-negligible – about 1 percentage point – and it is precisely estimated and robust across different specifications. The effect also persists over five elections, until 2008 - almost twenty-five years after municipalities were differentially exposed to Mediaset, and fifteen years after Berlusconi entered politics. Given that all municipalities were progressively exposed to Mediaset by 1990 and that our coefficient captures only the effect of a few additional years of exposure, the effect on voting behavior is quite remarkable.

Interestingly, while the effect on Berlusconi’s party vanishes in 2013, in that year municipalities exposed to entertainment TV prior to 1985 exhibit higher support for the Five Star Movement (M5S), a new anti-establishment party led by former comedian Beppe Grillo. Despite clear ideological differences, the M5S shares with *Forza Italia* a distinctively populist rhetoric and the leadership of a charismatic media personality ([Jones and Pasquino, 2015](#)). This result suggests that, rather than just favoring Berlusconi’s party, exposure to entertainment TV made voters generally more supportive of populist movements and leaders.

To further validate our results and to explore the mechanism(s) through which entertainment TV influenced later voting behavior, we combine information on early Mediaset access with individual-level data on TV consumption, political and social attitudes, and cognitive abilities. Reassuringly, we find that the effect of Mediaset is especially pronounced for heavy TV viewers. In particular, this effect is much larger – close to 10 percentage points – for individuals exposed either as children (below 10) or at later ages (55 or above); these are also the cohorts watching the most TV.

The mechanisms through which the effect operates are, however, very different for the two groups. For individuals first exposed to Mediaset as children, we find that entertainment TV has a negative impact on cognitive abilities in adult age, as measured by standardized numeracy and literacy tests. Furthermore, these individuals also exhibit significantly lower levels of civic engagement, as measured by interest in politics and participation in voluntary associations. Two pieces of evidence suggest why the effect of entertainment TV on young viewers’ cognitive and non-cognitive abilities may have translated into higher support for *Forza Italia*. First, we document that Berlusconi’s party was disproportionately popular among less educated and less engaged voters, and was hence well-positioned to benefit from the decline in cognitive skills and civic engagement induced by entertainment TV. Second, based on the analysis of a large corpus of televised interventions by Italian politicians, we show that, compared to other political

³A similar approach has been used by [Farré and Fasani \(2013\)](#), [DellaVigna et al. \(2014\)](#), and [Yanagizawa-Drott \(2014\)](#).

leaders, Berlusconi uses a language that is more accessible to ordinary people, and is therefore more likely to appeal to less sophisticated voters. Both in terms of voters' profiles and political language, we find that a similar pattern applies to M5S and its leader Grillo. Taken together, our findings support the view that exposure to entertainment television, particularly at a young age, can contribute to making individuals cognitively and culturally shallower, and ultimately more vulnerable to populist rhetoric.

Turning to individuals exposed to Mediaset in old age we find, instead, that they developed a strong attachment to the network that made them more likely to watch news on Mediaset channels after these were introduced in 1991. The larger support for Berlusconi among these cohorts could therefore be due to the exposure to the strong pro-Berlusconi bias of Mediaset newscasts (Durante and Knight, 2012; Barone et al., 2015).

Our research contributes to the literature on the impact of mass media in three ways. First, we show that non-informative, entertainment TV can have a tangible impact on political preferences, and we explore possible explanations for this effect. In this respect, our findings complement previous contributions on the effect of (biased) news content on voting, namely the work by DellaVigna and Kaplan (2007) on the effect of Fox News on support for Republicans, and by Enikolopov et al. (2011) on the negative impact of the independent Russian channel NTV on support for Putin. Our work is especially related to Barone et al. (2015), who study the effect of pro-Berlusconi bias in Mediaset news on local elections in one Italian region.

Second, our findings relate to previous work on the effect of television on cognitive skills (see, e.g., Gentzkow and Shapiro, 2008; Hernæs et al., 2016) and civic attitudes (Putnam, 2000; Olken, 2009). Our findings shed new light on these relationships by isolating the effect of entertainment content, and by exploring their implications for political preferences.

Last but not least, our research contributes to a growing literature, and a vast ongoing public debate, on the determinants of support for populist parties around the world (Mughan et al., 2003; Mudde, 2007; Oesch, 2008; Dippel et al., 2015). While popular discontent with the political establishment is likely to have deep socioeconomic roots, our findings suggest that by popularizing certain linguistic codes and cultural models, entertainment television may have contributed to creating a fertile ground for the success of populist leaders.

The remainder of the paper is organized as follows. Section 2 provides background information on the evolution of Italy's political system and broadcast television industry during the period of interest. Section 3 describes the data used in the empirical analysis. Section 4 discusses the identification strategy. Section 5 presents the main findings. Section 6 concludes.

2 Background

2.1 The rise of commercial TV in Italy

Italian law banned private TV broadcasting until 1976, when private channels were finally allowed to broadcast, though only at the local level.⁴ To circumvent this restriction, some business groups established broadcast syndication agreements by which formally independent local stations would simultaneously broadcast the same content across different local markets, mimicking the functioning of a broader network. One such network, *Canale 5*, was launched by Silvio Berlusconi in 1980; the other ones were *Prima Rete*, *Italia 1*, and *Rete 4*, controlled respectively by the Rizzoli, Rusconi, and Mondadori groups. Although in 1981 the Constitutional Court had deemed syndication agreements illegal, between 1982 and 1984 Berlusconi acquired *Italia 1* and *Rete 4* from his competitors and incorporated the three channels into the holding Fininvest, which later became Mediaset. In October 1984, the attorneys of Turin and Rome accused Mediaset of violating the Constitutional Court’s ruling and demanded that its transmitters be disconnected. The government of Bettino Craxi – leader of the Italian Socialist Party and Berlusconi’s long-term political sponsor – intervened issuing an emergency decree, later converted into law by Parliament, which removed all restrictions to ultra-local broadcasting.

Once assured that its dominant position would not be threatened, Mediaset acquired new transmitters and rapidly expanded its coverage to the entire population. Until then, Mediaset had not systematically built its own transmitters, finding it more convenient to use those of the local stations it acquired. According to our data, in 1985 – before Craxi’s decree – Mediaset operated 1,710 transmitters and could reach about half of the population with a good quality signal; two years later, the number of transmitters had reached 3,800, and Mediaset signal reached about 87% of the population (Constitutional Court, 1988). By the end of 1990, Mediaset coverage had reached 98%, comparable to the virtually universal coverage of the state-owned TV corporation, RAI. The RAI-Mediaset duopoly was perpetuated by a new telecommunication law, approved by the Parliament in 1990, which largely confirmed the regulatory framework of the 1985 decree, and which limited the possibility of assigning new broadcasting licenses to other operators.⁵

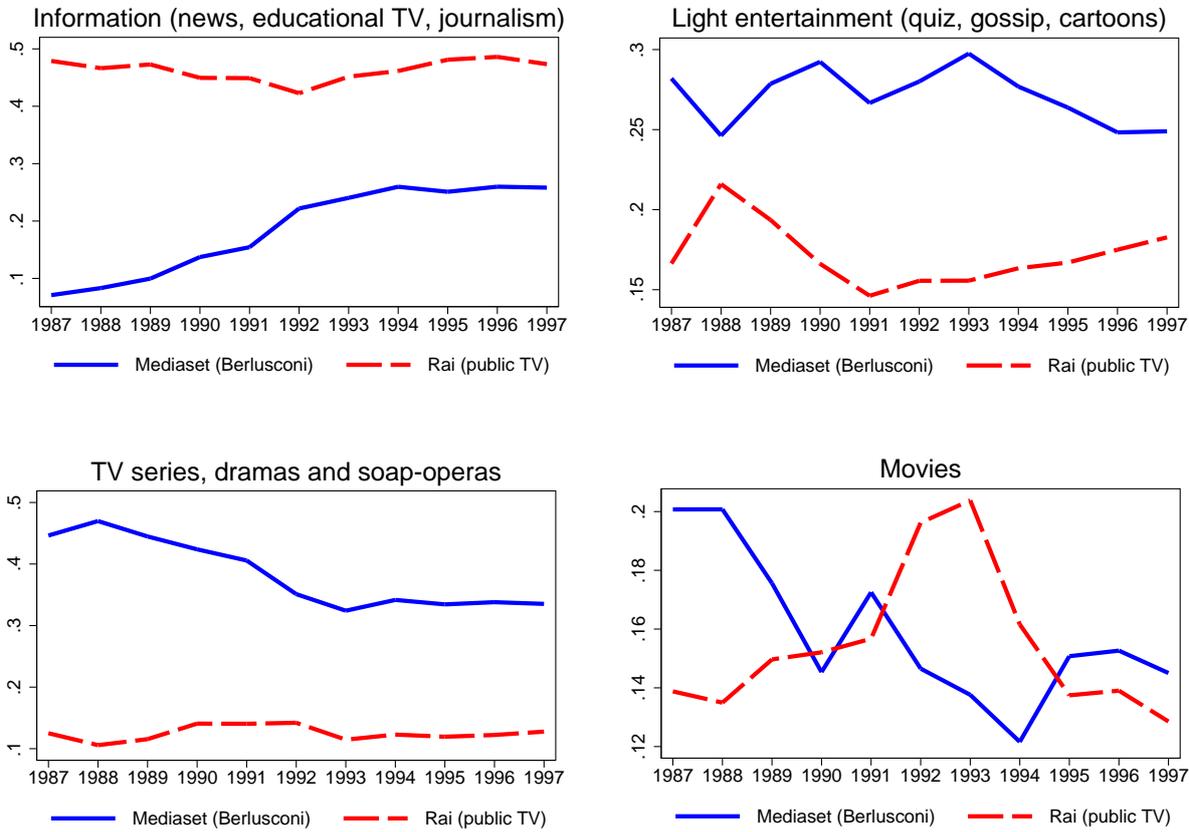
Crucially, content on Mediaset channels was very different than on public channels. As illustrated in Figure 1, Mediaset featured prominently foreign TV series (particularly

⁴The ban was motivated by the argument that the state would better protect and guarantee the impartiality, objectivity, and completeness of television service (ruling 59/1960 by the Constitutional Court).

⁵In the 1980s, there were only three other channels broadcasting at the national level: TeleMontecarlo, a foreign TV channel that reached the Italian peninsula and, for this reason, aired its TV shows in Italian; Italia 7, which was also owned by Berlusconi; and Odeon TV. However, they attained only a very incomplete coverage of the national territory, and a combined share of total audience below 5% (Constitutional Court, 1988). The number of channels increased considerably only after the transition to digital TV in 2008 (Barone et al., 2015).

action dramas and soap operas), cartoons, sport events, and light entertainment shows. News programs were not introduced until 1991, and other types of informational programs were also rare. Mediaset content represented an absolute novelty with respect to that of RAI, which, in line with its “public service” mandate, was primarily devoted to news, educational programs, investigative journalism, and political talk shows (Heap, 2005). Hence, throughout the 1980s, and to a lesser extent later on, Mediaset represented the main entertainment option for Italian viewers. This market positioning proved very successful. According to Nielsen data cited by the Constitutional Court (1988), in 1987 Mediaset reached an audience share comparable to that of RAI, and it was the uncontested leader in the advertising market.

Figure 1: Share of airtime devoted to different types of programs on Mediaset and RAI 1987-1997



Note: the source of these data is the series *Statistiche Culturali*, published by ISTAT

2.2 The Italian Political Landscape (1994-2013)

According to several of his associates, and by his own account, Berlusconi had no intention of entering politics until 1992-93, when an unprecedented series of corruption scandals led

to the dismantlement of the conservative coalition that had governed for over a decade, and the transition to Italy’s so-called Second Republic. In the wake of this political crisis, a temporary technocratic government was instituted and early elections were called for in March 1994. Fearing the electoral victory of the left-wing Democratic Party (PD) – the heir of Italy’s Communist Party that had traditionally been critical of Mediaset’s dominant position and advocated a general reform of the media industry – Berlusconi decided to run for office. In December 1993, just three months before the elections, he announced the creation of a new political party, *Forza Italia* (“Forward Italy”), which aspired to occupy the political space left by the collapse of traditional center-right parties.⁶

The entry of Berlusconi revolutionized the Italian political landscape. Berlusconi’s political message and communication style were very different from what Italian voters were used to. His political platform was rather vague, allowing him to forge alliances with parties as diverse as the post-fascist nationalist *Alleanza Nazionale* (“National Alliance”) and the separatist *Lega Nord* (“Northern League”). He used simple language and catchy slogans, easily accessible to ordinary people. He was critical of professional politicians, and portrayed himself as a political outsider, emphasizing his achievements as a businessman. *Forza Italia*’s organization also differed radically from that of traditional Italian parties: it was essentially a personalistic party, with a minimal territorial structure and relatively few party members (Hopkin and Paolucci, 1999).

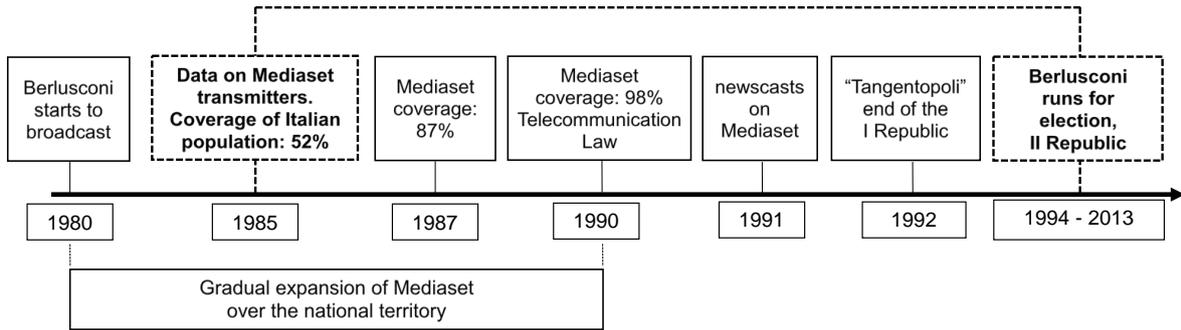
Berlusconi’s innovative style and aggressive campaign proved very successful. The right-wing coalition led by *Forza Italia* won the 1994 elections and Berlusconi became Prime Minister for the first time. Although his first experience in office was short-lived, Berlusconi had become a key player in the Italian political landscape. The right-wing coalition would win the elections again in 2001 and 2008, and would lose by a narrow margin in 1996 and 2006 against the left, led by the PD. In 2013, both coalitions suffered major losses against the Five-Star Movement (M5S), a new anti-establishment party that captured 25.5% of the votes.⁷ Led by blogger and former comedian Beppe Grillo, the M5S was very critical of government corruption and mainstream political elites. Crucially, despite clear ideological differences, the M5S and *Forza Italia* have in common a distinctly populist rhetoric and an utter dependence on a charismatic and media-savvy leader (see, e.g. Fella and Ruzza, 2013; Jones and Pasquino, 2015; Verbeek and Zaslove, 2016).

Figure 2 summarizes the timing of the events described above and illustrates the intuition behind our empirical approach: relating electoral patterns in and after 1994 with access to Mediaset prior to 1985, when geographical differences in coverage were still considerable.

⁶For simplicity we refer to the “PD” and “*Forza Italia*” throughout, although both parties changed their name several times during the sample period.

⁷Figure A1 in Appendix A shows the vote share obtained by the main parties and coalitions in the Second Republic.

Figure 2: Timeline of events, 1980-1994



3 Data

We obtained from the Mediaset group detailed information on all the 1,710 transmitters operating in 1985. Specifically, for each transmitter we obtained a technical report indicating the latitude, longitude, altitude, and height of the transmitter’s location, as well as its transmitting power and frequency.⁸ We combine this information with a high-resolution GIS map of Italy to compute Mediaset signal strength across Italian municipalities.

Broadcast television signal is transmitted over the air according to the laws of physics for electromagnetic propagation. In the free space, signal strength would decrease with the square of the distance from the transmitter. In reality, however, patterns of decay are much more complex due to diffraction caused by mountains and other obstacles. We employ a professional engineer-developed software that simulates signal propagation based on the Longley-Rice Irregular Terrain Model (ITM). The ITM was originally developed by the US government for frequency-planning purposes and allows one to accurately predict signal strength across narrow geographical cells (Phillips et al., 2011).⁹

Using the ITM algorithm, we compute Mediaset signal strength in decibels (dB) at the centroid of each of Italy’s 8,100 municipalities (*comune*). Municipalities represent the lowest administrative units in Italy and are fairly small both in terms of surface (mean of 37.2 km², median of 21.8 km²) and population (mean of 7,010 inhabitants, median of 2,296 inhabitants); Table A1 in Appendix A reports summary statistics for our main variables.

The left map in Figure 3 reports the distribution of Mediaset signal across Italian municipalities in 1985. In principle, positive values of signal strength should imply good reception of Mediaset, whereas reception should be imperfect or nil for negative values of signal strength. Olken (2009) provides evidence consistent with this prediction of the ITM using survey data on viewership in Indonesia over the period 2003-2004. In the

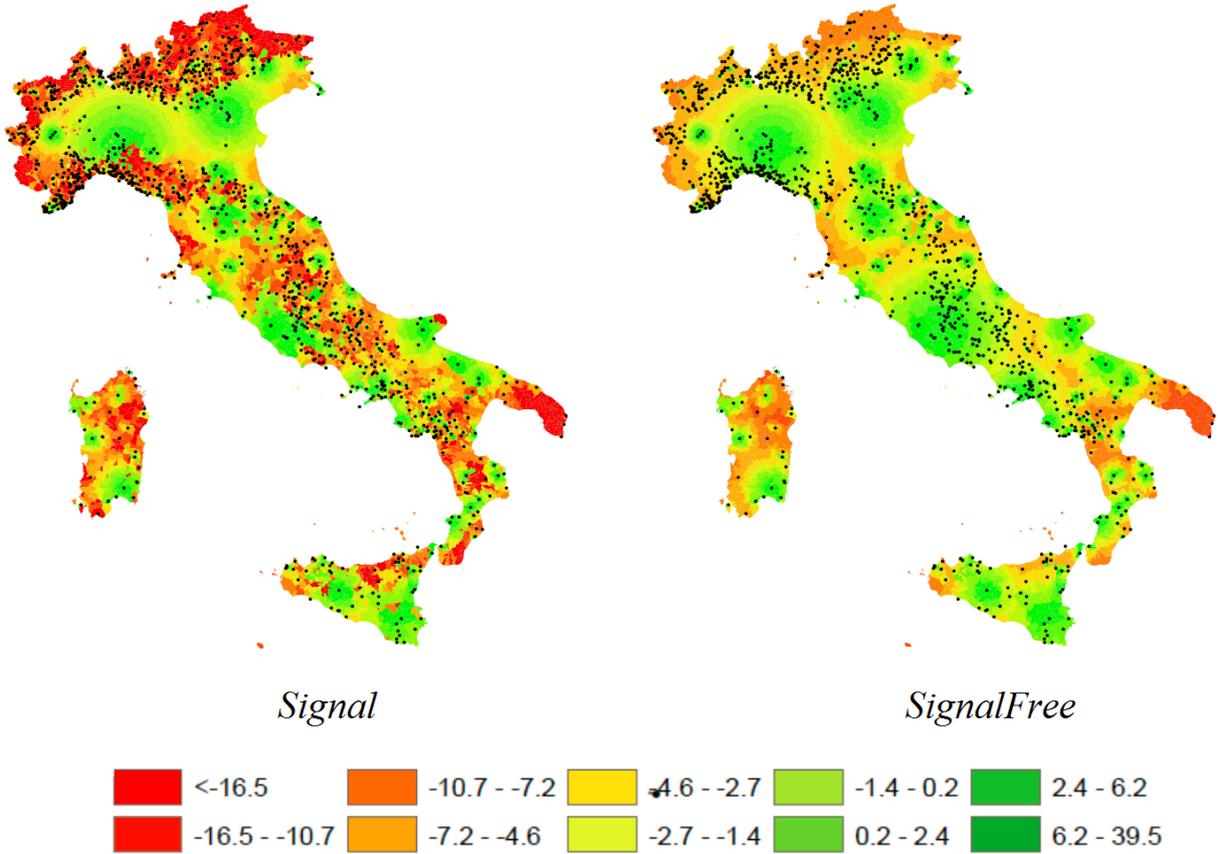
⁸A sample technical report sheet is reported in Appendix A (Figure A3).

⁹The version used in this paper is described in Hufford (2002), and it has been previously used by Olken (2009), Enikolopov et al. (2011), Farré and Fasani (2013), Yanagizawa-Drott (2014), and DellaVigna et al. (2014).

context analysed by Olken, the share of individuals able to watch a given channel is close to zero for values of signal strength around -100 dB, it increases with signal strength, and it reaches 100% when signal strength turns positive. However, the exact relationship between signal strength and the quality of reception may vary across space and time. For instance, [Bursztyn and Cantoni \(2012\)](#) show that, in 1989, viewers in East Germany attained fairly good reception of Western TV channels also for lower values of signal strength.

Data on the distribution of Mediaset viewers in the early 1980s are unfortunately not available, so we cannot estimate the relationship between signal strength and reception quality for the specific case of Mediaset channels. For this reason, we follow [Enikolopov et al. \(2011\)](#) and exploit continuous variation in signal strength. To ease the interpretation of the results, we compute our main explanatory variable, *Signal*, by dividing the original signal strength by its standard deviation. We exclude municipalities in the top and bottom 2.5% of the signal distribution, as even large differences in signal strength at either tail of the distribution should have little or no effect on the quality of reception.¹⁰

Figure 3: Mediaset actual signal strength and predicted strength in the free space in 1985



Note: The left map shows Mediaset actual signal strength across municipalities in 1985, the right map shows the hypothetical signal strength in the absence of geomorphological obstacles. The black dots represent the location of transmitters.

¹⁰Figure A2 of Appendix A shows the distribution of signal intensity as well as the upper and lower trimming.

The ITM also allows us to compute the hypothetical signal strength in the free space (i.e., assuming the absence of mountains or other obstacles to electromagnetic propagation), which we label as *SignalFree*, and which is important for our identification strategy. The distribution of *SignalFree* across municipalities is shown in the right map of Figure 3.

Turning to the main outcome of interest, we obtained from the Italian Ministry of Interior municipality-level data on all national elections between 1976 and 2013. Throughout this period elections were held under a proportional electoral system, with the exception of the 1994, 1996, and 2001 elections, which were held under a mixed system with a strong majoritarian component (75% of the seats were assigned in first-past-the-post electoral districts). We focus on voting for the Lower House (*Camera*) because the different electoral system in the Upper House (*Senato*) encouraged the formation of joint lists, often changing across different areas of the country.¹¹

4 Empirical strategy

Estimating the effect of Mediaset on later electoral outcomes requires that signal strength prior to 1985 is exogenous to voting behavior over the period 1994-2013. Some of the facts discussed in section 2 suggest that this may indeed be the case. First, Mediaset transmitters were inherited from small local stations that were progressively incorporated into the network, hence the exact location and installed power were not chosen by Mediaset. Second, even if Mediaset had targeted local stations in politically strategic areas, the considerable changes that occurred in the Italian political system between the early 1980s and 1994 (i.e., different electoral rules and different parties) would have frustrated any such strategy. Third, Berlusconi decided to enter politics just a few months prior to the 1994 elections, in the wake of political upheavals that were unforeseeable a decade before. For all these reasons, it is unlikely that the geographical expansion of Mediaset prior to 1985 was *intentionally* driven by the later political ambitions of Berlusconi.

However, early Mediaset coverage could still be correlated with other factors that also influence voting behavior (e.g., proximity to large cities). Following Olken (2009), we address this issue by regressing our outcomes of interest, across municipalities, on actual signal strength (*Signal*) as well as on the hypothetical signal strength in the free space (*SignalFree*). The latter variable captures variation in signal strength due to the location and power of transmitters, so the coefficient of *Signal* is identified from variation in diffraction patterns caused by topography.¹²

¹¹For instance, in the 1994 elections *Forza Italia* ran together with the *Lega Nord* in northern regions and with *Alleanza Nazionale* in the south, so it is difficult to isolate the electoral support for each member of the coalition.

¹²The same approach is used also by DellaVigna et al. (2014). Yanagizawa-Drott (2014) does not control for signal strength in the free space, but includes instead polynomials in distance from the transmitters.

We further restrict the analysis to variation within electoral districts (EDs) and local labor markets (LLMs). Both EDs and LLMs are very small areas (median area of 527 and 352 square kilometers, respectively) compared to provinces, the administrative unit just above municipalities (median area of 2246 square kilometers). Therefore, our estimates exploit only residual variation across municipalities within narrow geographical areas characterized by similar economic and political conditions.¹³

Finally, topography could influence political and social outcomes in ways other than through signal propagation. For this reason, we control for various geographic characteristics: surface area and its square, average altitude and its square, and average terrain ruggedness. Therefore, we do *not* exploit the very presence of geographical obstacles to signal propagation for the purposes of identification but, rather, their particular *shape* – arguably a milder restriction.

The following equation summarizes our econometric strategy:

$$Vote_m = \beta Signal_m + \gamma SignalFree_m + \delta' X_m + ED_{i(m)} + LLM_{j(m)} + \varepsilon_m, \quad (1)$$

where $Vote_m$ is the vote share obtained by a given party (e.g., *Forza Italia*) in municipality m ; $Signal_m$ and $SignalFree_m$ are, respectively, the actual signal strength and the hypothetical signal strength in the free space; X_m is a vector of control variables, including geographic and socio-economic characteristics; $ED_{i(m)}$ and $LLM_{j(m)}$ are, respectively, the fixed effects for the i -th electoral district and for the j -th local labor market in which municipality m is located; and ε_m is an error term. We cluster standard errors by electoral districts and we weight observations by population in 1981, in order to make the estimates representative at the national level.¹⁴

The main coefficient of interest, β , captures the “intention-to-treat” effect of (potential) exposure to Mediaset.¹⁵ The main identification assumption is that, conditional on the other covariates in equation (1), $Signal$ is independent of ε_m . Although such an assumption is essentially untestable, we provide an indirect test of conditional independence by looking at the correlation of $Signal$ with voting patterns in the 1970s and 1980s as well as with other socio-economic conditions that could potentially influence voting behavior.

Table 1 shows the correlation between $Signal$ and the vote share of the main parties and coalitions at the national elections in 1976, 1979, 1983, 1987, and 1992. We focus on the electoral results of the Italian Communist Party, the center-right coalition *Pentapartito* formed by the Christian Democrats and their allies, and a residual group comprising other (minor) parties. The univariate coefficient of $Signal$ is generally small and not

¹³LLMs are defined by ISTAT on the basis of workers’ commuting patterns (ISTAT, 2011). Figure A4 of Appendix A shows the boundaries of EDs, LLMs, and provinces, respectively.

¹⁴The results on the unweighted observations are generally stronger.

¹⁵Olken (2009) and Enikolopov et al. (2011), who also have information on the number of viewers, use signal strength as an instrument to estimate the effect of viewership in a two-stage-least-squares framework.

significantly different from zero (column 2); this is even more the case when controlling for fixed effects and other municipality characteristics (column 3). Hence, Mediaset coverage prior to 1985 is not systematically correlated with pre-existing political preferences.

In Table 2 we explore the correlation between *Signal* and other municipality characteristics. Several factors are significantly correlated with *Signal* in the univariate regression (column 2). As should be expected, the expansion of Mediaset throughout the Italian territory was not random, targeting, instead, more economically developed areas. However, most of the correlation with these local characteristics is absorbed by the other variables on the right-hand side of equation (1) (column 3). Indeed, the joint variation in *SignalFree*, topography, and fixed effects explains between 50% and 90% of the overall variation for most socio-economic characteristics. Once these additional covariates are included in the regression, *Signal* is no longer correlated with labor market conditions, whereas it continues to be correlated with educational attainment and income per capita. For this reason, we include both these variables on the right-hand side of our main regression.

5 Results

This section presents the main results of our empirical analysis. We first estimate the effect of early exposure to Mediaset in 1985 on voting after 1994 across municipalities. We then investigate the mechanisms driving this relationship exploiting additional information from several surveys available at the individual level.

5.1 Baseline estimates

In Table 3 we examine the effect of Mediaset signal strength in 1985 on voting for *Forza Italia* in 1994 – the first election in which Berlusconi ran for office. In the univariate regression in column (1), *Signal* displays a positive and statistically significant coefficient: a one standard deviation increase in *Signal* is associated with a 2.85 percentage point increase in the vote share of *Forza Italia*.

In columns (2) and (3) we add to the right-hand side the hypothetical signal strength in the free space (*SignalFree*) and the measures of topography. If anything, the coefficient of *Signal* increases slightly, suggesting that our main result holds when we exploit only idiosyncratic variation in signal strength – as driven by geographic obstacles between the municipality and the transmitter. The point estimate on *Signal* decreases to slightly less than 1 percentage point when including ED and LLM fixed effects (column 4) and remains virtually unaffected when also controlling for municipality income per capita (in log), schooling levels, and number of eligible voters (column 5).

These results are robust to using a different approach, namely matching pairs of neigh-

Table 1: Exposure to Mediaset and voting for the main Italian parties, 1976-1992 (balance tests)

Party, election	(1)	(2)		(3)	
	mean	univariate OLS		FE & controls	
		<i>coeff.</i>	<i>R2</i>	<i>coeff.</i>	<i>R2</i>
Italian Communist Party, 1976	33.332 (0.137)	1.773 (1.157)	0.005	-0.379 (0.587)	0.809
Pentapartito, 1976	54.95 (0.131)	-0.487 (1.068)	0.005	0.247 (0.518)	0.806
Other parties, 1976	9.027 (0.082)	-1.013 (1.047)	0.007	0.051 (0.235)	0.920
Italian Communist Party, 1979	28.966 (0.138)	1.644 (1.165)	0.002	-0.442 (0.539)	0.834
Pentapartito, 1979	55.153 (0.128)	-0.770 (1.105)	0.001	0.422 (0.481)	0.813
Other parties, 1979	11.672 (0.081)	-0.487 (1.006)	0.009	-0.067 (0.219)	0.923
Italian Communist Party, 1983	28.003 (0.138)	1.502 (1.212)	0.002	-0.500 (0.560)	0.834
Pentapartito, 1983	53.607 (0.126)	-0.872 (1.166)	0.005	0.443 (0.489)	0.808
Other parties, 1983	12.522 (0.082)	-0.285 (0.984)	0.020	0.015 (0.264)	0.910
Italian Communist Party, 1987	25.223 (0.133)	0.847 (1.140)	0.002	-0.497 (0.504)	0.844
Pentapartito, 1987	54.73 (0.128)	-1.187 (1.225)	0.001	0.459 (0.458)	0.829
Other parties, 1987	15.056 (0.088)	0.681 (0.999)	0.007	-0.046 (0.248)	0.925
Italian Communist Party, 1992	15.171 (0.105)	0.410 (0.859)	0.000	-0.042 (0.357)	0.864
Pentapartito, 1992	50.586 (0.145)	-3.031* (1.562)	0.007	-0.154 (0.412)	0.891
Other parties, 1992	28.773 (0.136)	2.997** (1.454)	0.007	0.120 (0.253)	0.943

Note: The table reports the average vote shares obtained by the main parties and coalitions in each election between 1976 and 1992 (column 1) and their correlation with early exposure to Mediaset (columns 2 and 3). Specifically, column (2) reports the coefficient and R^2 of the univariate OLS regression of each variable on Mediaset signal strength in 1985 (*Signal*) controlling for signal strength in the free-space (*SignalFree*); column (3) adds ED and LLM fixed effects, surface area and its square, average altitude and its square, and average terrain ruggedness. Means and regressions are weighted by municipality population in 1981, heteroskedasticity-robust standard errors clustered at the electoral district level are reported in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 2: Exposure to Mediaset and municipality characteristics (balance test)

Dependent variable:	(1)	(2)		(3)	
	mean	univariate OLS		FE & controls	
		coeff.	R ²	coeff.	R ²
Population, thousands (1981)	6.940 (0.511)	68.164 (63.342)	0.249	8.983 (7.446)	0.999
Population growth, 1981-2001	0.033 (0.003)	0.027 (0.018)	0.012	0.002 (0.009)	0.622
Activity rate, percentage (1991)	42.260 (0.046)	2.535*** (0.278)	0.047	0.137 (0.151)	0.858
Employment rate, percentage (1991)	35.084 (0.087)	3.155*** (0.564)	0.021	0.135 (0.160)	0.953
Unemployment rate, percentage (1991)	6.933 (0.047)	-0.855** (0.357)	0.005	-0.121 (0.173)	0.791
log income per capita, euros (1985)	1.739 (0.003)	0.110*** (0.035)	0.039	0.025*** (0.008)	0.913
Education, % higher education (1981)	13.187 (0.068)	1.411** (0.690)	0.144	0.723*** (0.234)	0.833
Voluntarily association X 100 pop. (1981)	0.103 (0.001)	-0.139 (0.686)	0.033	0.264 (0.451)	0.497
Firms per capita (1981)	0.051 (0.000)	0.001 (0.001)	0.043	-0.000 (0.001)	0.724

Note: The table reports the mean of municipality characteristics (column 1) and their correlation with early exposure to Mediaset (columns 2-3). Specifically, column (2) reports the coefficient and R² of the univariate OLS regression of each variable on Mediaset signal strength in 1985 (*Signal*) controlling for signal strength in the free-space (*SignalFree*); column (3) adds ED and LLM fixed effects, surface area and its square, average altitude and its square, and average terrain ruggedness. Means and regressions are weighted by municipality population in 1981 (with the exception of mean population and population growth). Heteroskedasticity-robust standard errors clustered at the electoral district level are reported in parentheses. *** p<0.01, **p<0.05, * p<0.1.

Table 3: Exposure to Mediaset and voting for *Forza Italia* in 1994

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	OLS regression					matching neighbors		
<i>Signal</i>	2.853***	3.215***	3.666***	0.901***	0.851***	0.584***	0.750***	0.834***
	(0.860)	(0.705)	(0.759)	(0.232)	(0.234)	(0.161)	(0.188)	(0.229)
<i>SignalFree</i>		-0.289	0.014	-0.668**	-0.642**			
		(0.719)	(0.473)	(0.260)	(0.254)			
<i>Area</i>			-0.966	0.854**	0.875**	0.342	0.267	0.425
			(0.695)	(0.379)	(0.404)	(0.579)	(0.732)	(1.175)
<i>Area</i> ²			0.030	-0.079	-0.069	0.066	0.069	0.063
			(0.054)	(0.093)	(0.093)	(0.136)	(0.190)	(0.406)
<i>Altitude</i>			-6.244	-12.716***	-10.963***	-8.384***	-8.015**	-9.344**
			(4.483)	(1.578)	(1.625)	(2.366)	(3.109)	(4.180)
<i>Altitude</i> ²			-0.092	7.125***	6.367***	4.234*	4.781	5.736
			(3.953)	(1.269)	(1.289)	(2.243)	(2.944)	(4.087)
<i>Ruggedness</i>			0.007*	-0.002***	-0.002**	-0.001	-0.000	0.001
			(0.004)	(0.001)	(0.001)	(0.002)	(0.002)	(0.003)
<i>Electorate</i>					-0.000	-0.000*	-0.000	-0.000
					(0.000)	(0.000)	(0.000)	(0.000)
<i>Log income per capita</i>					5.109***	3.827***	3.991***	4.393***
					(0.763)	(1.092)	(1.241)	(1.603)
<i>Education</i>					-0.089***	-0.035	-0.048	-0.054
					(0.030)	(0.048)	(0.055)	(0.067)
Observations	7,600	7,600	7,590	7,590	7,519	4,548	3,229	2,071
Electoral district FE	NO	NO	NO	YES	YES	Δ <i>SignalFree</i> less than:		
Local labor market FE	NO	NO	NO	YES	YES	1	0.5	0.25
R2	0.050	0.051	0.108	0.918	0.921	0.854	0.840	0.818

Note: The table reports OLS estimates of the effect of early exposure to Mediaset on the vote share of *Forza Italia* in the 1994 elections. *Signal* is Mediaset signal strength in 1985, *SignalFree* is signal strength in the free space. *Area*, *Altitude*, *Area*², and *Altitude*² are the municipality's surface (in squared meters) and average altitude (in thousand meters) and their respective squared terms; *Ruggedness* is the municipality's average terrain ruggedness; *Electorate* is the number of eligible voters in the municipality, in thousands; *Log income per capita* is the logarithm of per capita income in 1985; *Education* is the share of municipality population with at least a high-school diploma. The specifications in columns (4) and (5) also include ED and LLM fixed effects. Regressions are weighted by municipality population in 1981; standard errors clustered at the electoral district level are reported in parentheses. Columns (6), (7), and (8) compare vote shares between neighboring municipalities that differ in *SignalFree* by less than 1 dB, 0.5 dB, and 0.25 dB, respectively, with one municipality having *Signal* above zero and the other one having *Signal* below zero. We identify all such neighbor-pairs and regress vote shares on *Signal*, controlling for neighbor-pair fixed effects (since each municipality can appear in more than one pair) and for geographic characteristics. Standard errors clustered at the municipality-level are reported in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

boring municipalities that share a similar hypothetical signal strength in the free space but were nevertheless differently exposed to Mediaset. Specifically, we compare voting patterns between any two neighboring municipalities, i and j , such that

$$|SignalFree_i - SignalFree_j| < \Delta \quad \text{and} \quad Signal_j < 0 \leq Signal_i.$$

To the extent that viewers really attain perfect reception for $Signal \geq 0$, as predicted by the ITM software and confirmed by the evidence in [Olken \(2009\)](#), such comparison approximates, in a very intuitive fashion, the ideal experiment of exposing to Mediaset only one of two otherwise identical municipalities. The last three columns of [Table 3](#) present the results for Δ lower than 1, 0.5, and 0.25 dB, respectively. As we reduce the bandwidth, exposed and non-exposed municipalities are indistinguishable in terms of all (observable) characteristics and previous voting behavior.¹⁶ Even within this sub-sample, the coefficient of *Signal* remains positive and statistically significant. Most importantly, it is identical to the OLS estimate on the total sample – a 0.85 percentage point increase in the vote share of *Forza Italia*.

As explained above, this coefficient captures the effect of a few additional years of exposure, since, by 1990, virtually all municipalities had access to Mediaset. To provide a better sense of the magnitude, we first approximate coverage in each year by fitting a logistic curve through Mediaset expansion over time, as available from our own data and from the Constitutional Court ([1988](#)).¹⁷ Integrating the logistic curve between 1980 and 1990, municipalities reached before and after 1985 were exposed on average for 7 and 4 years, respectively. Assuming that the effect increases linearly with the length of exposure – a non-trivial assumption – the effect-per-year-of-exposure is $0.85/3=0.28$ percentage points. Projecting such an effect on the average years of exposure across the entire population between 1980 and 1990 (5 and a half years), the voting share of *Forza Italia* would have decreased by $0.28 \times 5.5 = 1.54$ percentage points in the absence of entertainment TV during the 1980s.

This effect is quite sizable for at least three reasons. First, the effect of differential exposure before 1985 likely fades away with time, so it is indeed remarkable that there are still systematic differences in voting in 1994 (and even later; see below). Second, all municipalities were equally exposed to Mediaset entertainment and biased news content since 1991. Finally, our coefficient captures only the “intention-to-treat” effect, so the average effect across viewers would be even larger.

To gauge the magnitude of the effect in terms of parliamentary representation, we estimate the number of seats that Berlusconi’s coalition would have lost in first-past-the-post districts. Assuming that the effect estimated on the vote share of *Forza Italia* brings

¹⁶The balance tests are reported in [Tables A2 and A3](#) of [Appendix A](#).

¹⁷The predicted coverage of Mediaset in each year is shown in [Figure A5](#) of [Appendix A](#).

Table 4: Exposure to Mediaset and voting for main political parties (1994-2013)

Party ↓ Election →	1994	1996	2001	2006	2008	2013
Forza Italia	0.851*** (0.234)	0.713*** (0.200)	0.832*** (0.296)	0.945*** (0.281)	1.021*** (0.337)	0.198 (0.273)
Other center-right	0.082 (0.361)	0.006 (0.318)	-0.121 (0.218)	0.034 (0.204)	-0.194 (0.144)	-0.091 (0.088)
Centrist parties	-0.183 (0.265)	-0.239 (0.158)	-0.186 (0.197)	-0.002 (0.147)	-0.237 (0.168)	0.079 (0.136)
Democratic Party	-0.407 (0.376)	-0.473 (0.327)	-0.422 (0.285)	-0.483 (0.372)	-0.644* (0.342)	-0.421 (0.271)
Other center-left	-0.183 (0.124)	-0.041 (0.151)	-0.075 (0.196)	-0.265 (0.233)	-0.027 (0.108)	-0.103 (0.094)
Extreme left parties	-0.322** (0.152)	-0.227 (0.154)	-0.204 (0.160)	-0.212 (0.168)	-0.105 (0.087)	-0.219** (0.088)
M5S						0.522** (0.243)
Other parties	0.027 (0.198)	0.129 (0.092)	0.134 (0.097)	0.003 (0.073)	0.142 (0.177)	0.050 (0.179)
Invalid ballots	0.134 (0.128)	0.132 (0.136)	0.043 (0.171)	-0.020 (0.049)	0.044 (0.087)	-0.015 (0.069)
Turnout	0.338 (0.334)	0.488 (0.392)	0.369 (0.394)	0.260 (0.256)	0.212 (0.231)	0.512** (0.251)

Note: The table shows the effect of early exposure to Mediaset on the vote share of the main Italian parties (rows) in each of the six elections held between 1994 and 2013 (columns). Each entry in the table reports the estimated coefficient (and standard error) of *Signal* in an OLS regression controlling also for *SignalFree*, *Area*, *Altitude*, *Area²*, *Altitude²*, *Ruggedness*, *Electorate*, *Log income per capita*, *Education*, electoral district and local labor market fixed effects. Observations are weighted by municipality population in 1981. Standard errors clustered at the electoral district level in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

an opposite effect on the largest competing coalition, we find that absent entertainment TV the Centre-Right would have lost 18 seats in 1994 (out of 463 in which the two main coalitions competed); replicating the analysis for the other two elections held under first-past-the-post electoral systems, the effect increases up to 61 seats in 1996 and 40 seats in 2001. To this, we should add the effect on the seats assigned via the proportional ballot, which, however, is hard to gauge due to the complexity of the electoral rule.

In Table 4 we report the results for all elections and parties. Each entry in the table reports the estimated effect of early exposure to Mediaset on the vote share of a party (rows) in a given election (column), using the same specification as in column (5) of Table 3. Though the political landscape changed quite frequently after 1994, we were able to identify six other parties (or blocks of parties) that run for office alongside *Forza Italia* in all or some of the elections: other parties in the center-right coalition; centrist parties; the Democratic Party; other parties in the center-left coalition; extreme left parties; and the M5S (only for 2013).

The positive effect on *Forza Italia* persists for five elections, vanishing only in 2013. Interestingly, in that year municipalities that were exposed to Mediaset earlier on show significantly higher support for the newborn M5S – the only party beside *Forza Italia* to display a positive and significant coefficient. As mentioned in Section 2.2, the two parties share important similarities. In particular, they are both personalistic parties led by media personalities characterized by a distinctively populist rhetoric. At the same time, the two parties have very different ideological stances. Although the M5S can hardly be located on the traditional right-left axis, it is generally perceived as leaning towards the left of the political spectrum. By contrast, Berlusconi always catered to center-right voters. Therefore, party ideology is unlikely to be the main reason why Mediaset has a similar effect on *Forza Italia* and M5S; we investigate other explanations in Section 5.3.¹⁸

In Appendix A, we show that all findings across municipalities are qualitatively unaffected when including all observations or capping extreme values of signal strength, as opposed to trimming the sample (see A4 and Tables A5, respectively). Also, the estimated effects on *Forza Italia* and the M5S remain virtually identical when limiting the sample to progressively smaller municipalities – up to 1 thousand inhabitants or less – which were likely exposed or non-exposed by chance as the network expanded to cover larger municipalities (Figure A7). Finally, our result on M5S is unaffected when controlling for access to broadband Internet, which previous research by Campante et al. (2013) shows was positively related with support for Grillo’s party; see Table A6.

5.2 TV consumption and voting behavior

We next investigate which segments of the population were mostly affected by entertainment TV exploiting individual survey data on TV consumption and voting behavior, respectively.

The Survey on the Structure and Behavior of Italian Households was conducted in 1983 and contains detailed information on the habits and time-use, including media consumption, of a representative sample of the Italian population (ISTAT, 1985). Table 5 summarizes the main differences in TV consumption across different segments of the population. Individuals that spend more time watching TV include the non-employed (i.e., inactive and unemployed), the less educated, and women. The difference between men and women arguably reflects the considerable gender difference in employment rates existing in Italy at the time. The age profile of TV consumption is U-shaped, with children, youth, and retirees spending more hours watching TV than adults between 25 and 55.¹⁹

¹⁸Figure A6 of Appendix A shows the ideological stance of *Forza Italia*, the Democratic Party, and the M5S, as perceived by respondents of the Italian National Elections Study (described in the next section). Noticeably, more than one third of respondents are unable to locate the M5S on the left-right axis (as opposed to less than 10% for the other two parties), consistent with the party’s ideological ambiguity.

¹⁹In the 1980s the retirement age in Italy was between 55 and 60 for most categories of workers.

Table 5: TV consumption in 1983

	Hours of TV per day			Average num. hours
	≤ 2 hours	3-4 hours	5+ hours	
All sample	0.39	0.47	0.15	2.86
<i>Panel A: by gender, education, and employment condition</i>				
Females	0.35	0.48	0.16	2.99
Males	0.42	0.45	0.12	2.72
High school dropout	0.36	0.48	0.16	2.95
High school or college	0.49	0.42	0.09	2.48
Not employed	0.28	0.51	0.21	3.27
Employed	0.50	0.43	0.08	2.43
<i>Panel B: by age of the respondent</i>				
Children (below 10)	0.27	0.51	0.22	3.30
Youth (10-24)	0.33	0.51	0.16	3.06
Adults (25-44)	0.45	0.45	0.10	2.61
Pre-retirees (45-54)	0.45	0.43	0.12	2.66
Retirees (55 or above)	0.37	0.45	0.17	2.96

Note: The table summarizes data from a survey on the use of time by Italian households conducted by the Italian National Statistical Institute (ISTAT) in 1983 which included a set of questions on media consumption. The first 3 columns report the share of individuals in each group (rows) watching a given number of hours of TV per day. The average number of hours in column (4) is approximated by attributing 1 hour to individuals reporting up to 2, 3.5 hours to those reporting 3 to 4, 5.5 hours to those reporting 5 to 6, and 7 hours to those reporting 6 or more. Source: ISTAT (1985)

Turning to voting behavior, we use data from the Italian National Election Study (ITANES), an ongoing survey conducted immediately before and after all Italian national elections since 1972. Each wave covers a representative sample of the Italian population - between 2,000 and 3,000 individuals - and includes detailed information on (self-reported) voting choices, political participation, media consumption, and a range of individual characteristics such as age, gender, education, and employment.²⁰ Crucially, the data also include information on the municipality of residence (1,878 in total), which allows us to assign to each respondent a value of Mediaset signal intensity in 1985. We can thus compare the effect of early exposure to Mediaset on the voting behavior of different groups of individuals.

The results are presented in Table 6. The sample includes all individuals interviewed in every wave conducted between 1994 and 2013. The dependent variable is a dummy for voting for *Forza Italia*. The specification in column (1) includes *Signal*, *SignalFree*, all municipality-level control variables, an array of individual characteristics (gender, age, education, employment, marital status, household size), and year fixed effects. Standard errors are clustered at the municipality level in all regressions.

The results of the individual-level analysis confirm those at the municipal level. Early exposure to Mediaset has a positive and statistically significant effect on voting for *Forza Italia*, which is very robust to controlling for a range of municipal geographic and socio-economic characteristics (column 2), and to the inclusion of province fixed effects (column 3). According to this estimate, a one standard deviation increase in pre-1985 signal intensity is associated with an increase in the probability of an individual voting for *Forza Italia* of almost 3 percentage points – an even larger effect than that estimated across municipalities.

When we interact *Signal* with individual characteristics (columns 4-6), the effect is larger for lower-educated and non-employed individuals. When we include all interactions simultaneously (column 7), the differential effect is stronger and statistically significant for the less educated. This finding is robust to controlling for municipality \times year fixed effects, thus dropping *Signal* from the equation (column 8).

In Figure 4 we compare the effect along another dimension, namely the age at which individuals were differentially exposed to Mediaset (using the same age categories as in Table 5). The effect of Mediaset is larger and statistically significant for individuals exposed in very young or old age – i.e., below 10 and 55 and above, respectively – whereas there is no significant effect on the other age cohorts. This is consistent with children and retirees comprising the highest fraction of heavy TV consumers, defined as those watching at least 5 hours of TV per day. Indeed, Figure 4 shows that TV consumption and Mediaset effects exhibit the same age profile.

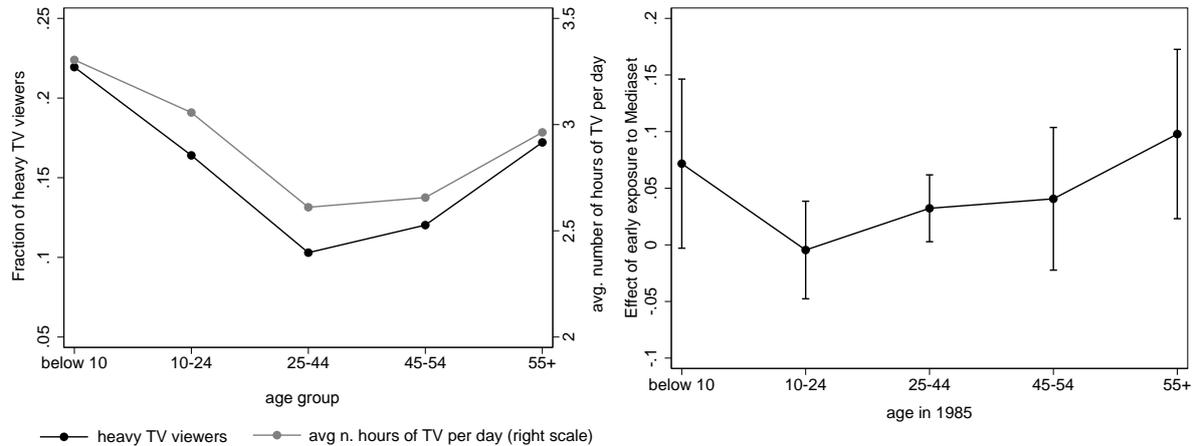
²⁰The ITANES survey is described in detail in Bellucci and Maraffi (2008). It has been used, among others, by Bellucci and Heath (2012), Durante and Knight (2012), and Barone et al. (2016).

Table 6: Heterogeneity in the effect of Mediaset across different groups of individuals

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Signal</i>	0.026** (0.010)	0.029** (0.011)	0.029** (0.012)	0.019 (0.013)	0.016 (0.013)	0.034** (0.013)	0.017 (0.015)	
<i>SignalFree</i>	-0.001 (0.009)	0.000 (0.009)	-0.012 (0.011)	-0.012 (0.011)	-0.012 (0.011)	-0.012 (0.011)	-0.013 (0.011)	
<i>College</i>	-0.020*** (0.006)	-0.016*** (0.006)	-0.018*** (0.006)	-0.018*** (0.006)	-0.018*** (0.006)	-0.018*** (0.006)	-0.018*** (0.006)	-0.012 (0.008)
<i>Female</i>	0.028*** (0.008)	0.029*** (0.008)	0.031*** (0.008)	0.031*** (0.008)	0.031*** (0.008)	0.032*** (0.008)	0.031*** (0.008)	0.023** (0.011)
<i>Employed</i>	0.003 (0.009)	0.004 (0.010)	0.009 (0.009)	0.009 (0.009)	0.009 (0.009)	0.008 (0.009)	0.009 (0.009)	0.017 (0.012)
<i>Signal X Unemployed</i>				0.018* (0.010)			0.014 (0.010)	0.010 (0.013)
<i>Signal X Low-educated</i>					0.027** (0.012)		0.024** (0.012)	0.030** (0.015)
<i>Signal X Female</i>						-0.009 (0.009)	-0.012 (0.009)	-0.006 (0.012)
Observations	10,607	10,552	10,552	10,552	10,552	10,552	10,552	10,552
Municipality controls	NO	YES	YES	YES	YES	YES	YES	NO
Province FE	NO	NO	YES	YES	YES	YES	YES	NO
Municipality \times year FE	NO	YES						
R2	0.067	0.071	0.092	0.092	0.093	0.092	0.093	0.376

Note: The table illustrates the effect of early exposure to Mediaset on the probability of voting for *Forza Italia* for individuals interviewed in the context of the Italian National Election Study (ITANES) between 1994 and 2013. The dependent variable is a dummy equal to 1 for having voted for *Forza Italia*. *Signal* is Mediaset signal strength in 1985, *SignalFree* is signal strength in the free space. All specifications include election year fixed effects, all municipal controls reported in Table 3, and the following individual characteristics: *Education*, *Gender*, *Age*, *Employment status*, *Marital status*, and *Number of family members*. The specifications in columns (3) to (7) also control for province fixed effects. The specification in column (8) includes municipality \times year fixed effects, thus dropping province fixed effects and municipality-level variables. Standard errors clustered at the municipal level in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Figure 4: TV consumption and effect of early exposure to Mediaset by cohorts



Note: The left graph depicts the share of heavy TV viewers and the average number of hours spent watching TV per day by age group (from Table 5). The right graph shows, instead, OLS estimates and respective confidence intervals of the effect of early exposure to Mediaset on the probability of voting for *Forza Italia* for the same age groups. The OLS specification is the same as in columns (3) to (7) of Table 6.

Overall, the results by education, employment status, and age group line up nicely with the evidence on TV consumption in Table 5: the effect of early exposure to Mediaset is larger for heavy TV viewers. In addition, the results by age group provide important insights into the extreme persistence of the effect of entertainment TV. Indeed, the average effect of Mediaset on the probability of voting for *Forza Italia* across all individuals – 2.9 percentage points – is entirely driven by the large effect on younger and older cohorts – 7.8 and 9.8 percentage points, respectively. The former group includes individuals below 10 in 1985, who would join the voting population starting in 1994 and who would gradually replace the older cohorts, leaving the overall share of voters influenced by Mediaset largely unchanged. Indeed, these two cohorts account together for about 20 percent of voting population since 1994.²¹

5.3 Mechanisms

We explore two mechanisms through which entertainment TV may have influenced the voting behavior of early Mediaset viewers. First, exposure to entertainment TV may have had a negative impact on children’s cognitive abilities as adults. This could be due, for example, to the consumption of entertainment TV crowding out more intellectually stimulating activities such as reading (Ennemoser and Schneider, 2007). Evidence of such detrimental effects of entertainment TV is available from Hernæs et al. (2016), who, using a natural experiment similar to ours for the case of Norway, show that children exposed to entertainment TV fared worse in military service entry tests and were ultimately less educated. Crucially, the negative effect on cognitive skills is specific to entertainment TV, whereas educational TV content seems to have a beneficial effect (Gentzkow and Shapiro, 2008).²² Lower cognitive abilities could in turn make voters more vulnerable to simple political messages, which characterize the rhetoric of populist leaders. Indeed, evidence from political science indicates that less educated voters are more likely to support populist parties (see, e.g., Arzheimer, 2009).

Second, consumption of entertainment TV at a young age may have contributed to making individuals less socially engaged and civic-minded, for example by crowding out more socially engaging collective activities. This argument was put forth by Putnam (2000) in his seminal work on the decline of civic engagement in the United States. Putnam also draws an important distinction between informative and non-informative content: while news and educational programs are likely to foster viewers’ civic engagement

²¹Appendix B shows the evolution of the age distribution of voters since 1994 and the implied effects on voting for *Forza Italia* using administrative data provided by the Istituto Cattaneo, an independent research center in Italy.

²²These findings are in line with previous results from the psychology and medical literature, surveyed for example in Schmidt and Vandewater (2008) and Anderson and Pempek (2005), who have emphasized the risks associated with excessive consumption of entertainment content. Based on similar evidence, the American Association of Pediatrics (2001) recommended parents to “limit children’s total media time (with entertainment media) to no more than 1 to 2 hours of quality programming per day”.

and political awareness, light entertainment content would have the opposite effect.²³ To the extent that less engaged voters are more attracted to populist parties with a personalistic leadership than to parties relying on the active participation of their members (Horsfield, 2003), entertainment TV is likely to have favored *Forza Italia* and M5S over more traditional mass parties like the PD.

5.3.1 The effect of entertainment TV on cognitive skills and civic engagement

To investigate the two mechanisms described above we use data on adult literacy and numeracy test scores from the OECD Program for the International Assessment of Adults Competencies (PIAAC) and data on participation in civic association and interest in politics from ITANES.

The PIAAC is a large-scale survey aimed at measuring adults' proficiency in literacy and numeracy across OECD countries. In Italy, the survey was conducted in 2012 on a sample of 4,598 individuals, representative of the adult population between 16 and 65 years. We obtained access to a restricted-use version of the data that includes information on the municipality of residence – which we use to match respondents with Mediaset signal strength in 1985 – in addition to age, gender, level of education and marital status. In columns (1) and (2) of Table 7 we regress the PIAAC scores in numeracy and literacy on Mediaset signal strength in 1985. The specification is identical to that used for the individual-level regressions in Table 6 and Figure 4 (i.e., controlling for province fixed effects and the baseline set of individual and municipal characteristics). We distinguish between individuals first exposed to Mediaset at different ages, using the same age categories as in Figure 4 – each row in Table 7 reports the estimated coefficients for a specific age group.²⁴ We find that adults first exposed to Mediaset at a very young age (i.e., below 10) perform significantly worse both in numeracy and literacy. In particular, a one standard deviation increase in Mediaset signal strength reduces numeracy and literacy test scores by about one fourth and one fifth of a standard deviation, respectively. We find no significant effect on the cognitive achievement of individuals exposed at later ages.

We obtain very similar results using as an alternative measure of cognitive development the score in psychological tests at the time of conscription, available from military service records.. These data have the advantage of covering *all* Italian males born between 1973 and 1978, who largely correspond to the first age group in Table 7. On the other hand, they measure a wider spectrum of personality traits than just cognitive skills. We discuss

²³More recently, Aarts and Semetko (2003) and Prior (2005) show that watching entertainment TV is correlated with lower political knowledge and participation. Olken (2009) provides causal evidence of a negative impact of the introduction of television on social capital in Indonesia. The impact of entertainment television on socio-political engagement has also been examined in the literature on political communication (see Delli Carpini, 2012, for a survey of the most relevant contributions).

²⁴Since the survey was conducted in 2012 on individuals below 65 years of age, the oldest cohort of respondents was born in 1947. This restricts the age categories for PIAAC to individuals who were at most 38 in 1985.

these additional results in Appendix D.

Table 7: Exposure to Mediaset and adult cognitive skills, civic engagement, and TV news consumption

	(1)	(2)	(3)	(4)	(5)
	PIAAC		ITANES		
	Numeracy score	Literacy score	Interest in politics	Membership of associations	News on Mediaset
Below 10	-15.480** (7.290)	-11.110* (6.740)	-0.128*** (0.046)	-0.100** (0.048)	0.036 (0.063)
Age 10-24	-2.470 (4.940)	-0.460 (4.580)	0.010 (0.029)	0.011 (0.032)	0.024 (0.029)
Age 25-44	-2.430 (5.560)	-1.660 (4.670)	0.018 (0.019)	-0.037* (0.021)	0.010 (0.024)
Age 45-54			0.021 (0.051)	0.028 (0.048)	-0.004 (0.052)
55 or more			-0.022 (0.052)	-0.055 (0.051)	0.166** (0.070)

Note: The table examines the effect of being (differentially) exposed to entertainment TV at different ages (rows) on various individual outcomes in adult age (columns). The sample in columns (1) and (2) includes all respondents to the Italian module of the OECD’s Program for the International Assessment of Adults Competencies (PIAAC) survey. The dependent variables are the scores obtained in the numeracy (column 1) and literacy (column 2) part of the PIAAC tests. The sample in columns (3) to (5) includes individuals interviewed in the context of the Italian National Election Study (ITANES) surveys conducted between 1994 and 2013. The dependent variables are binary indicators for whether the respondent reported to be interested in politics (column 3), to participate in any kind of voluntary association (column 4), and to watch news on Mediaset channels (column 5). Each entry reports the estimated coefficient (and corresponding standard error) of *Signal* from a regression including *SignalFree*, province fixed effects, all municipal controls reported in Table 3, and the following individual characteristics: *Education*, *Gender*, *Age*, *Employment status*, *Marital status*, and *Number of family members*. The specifications in columns (3) to (5) also control for election year fixed effects. Standard errors clustered at the municipal level in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Early exposure to Mediaset has very similar effects on civic engagement, as measured by the ITANES survey. Specifically, the dependent variable in column (3) of Table 7 is a dummy for being fairly or very interested in politics, and the dependent variable in column (4) is a dummy for being a member of any voluntary association, including political parties, unions, or cooperatives; these are also the main measures of civic engagement considered by Putnam (2000). The effect is again negative only for individuals that were first exposed during childhood, the magnitude being also similar to the effect on cognitive skills – about a fifth of a standard deviation.²⁵

Overall, the results in columns (1)-(4) of Table 7 suggest that early exposure to entertainment TV led to a decrease in cognitive sophistication and civic engagement, but only for individuals exposed during childhood. This is consistent with extensive evidence in economics, neurosciences, and developmental psychology that early childhood is a critical period for the development of cognitive skills and personality traits (see, e.g., Heckman, 2006). The large effect of early exposure for the older cohorts (55+ in 1985)

²⁵In Appendix E we provide additional evidence across municipalities using Census data on the number of voluntary associations in 1981, 1991, and 2001.

seems driven, instead, by a higher probability of watching Mediaset newscasts after these were introduced in 1991. This result is shown in column (5) of Table 7, where the dependent variable is a dummy for watching news primarily on Mediaset. Early exposure to Mediaset increases the probability of watching Mediaset newscasts after 1991 by 16.6 percentage points among individuals who were 55 or older in 1985. The larger support for *Forza Italia* among these cohorts could therefore be attributed to their exposure to the marked pro-Berlusconi bias of Mediaset newscasts (documented by Durante and Knight, 2012).

To sum up, the evidence presented so far confirms that entertainment TV influenced the voting behavior of individuals exposed at very young or older ages. However, the two groups were affected in very different ways: while younger cohorts experienced a decline in cognitive abilities and civic engagement, older cohorts were hooked to Mediaset and later exposed to biased news content on the same channels.

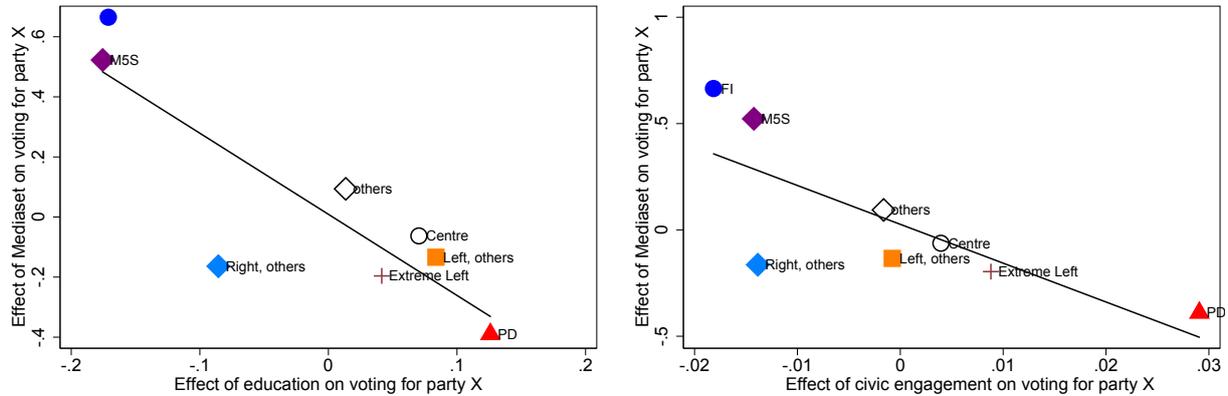
5.3.2 Cognitive skills, civic engagement, and voting

Having established that exposure to entertainment TV led to a decline in cognitive abilities and civic engagement among younger generations, we now examine its implications for voting behavior across parties. Intuitively, parties that cater to less educated and less civic-minded voters should benefit from the introduction of Mediaset. Therefore, the effect of entertainment TV on voting for a given party should be inversely related to the effects of cognitive skills and civic engagement on voting for the same party. To test this implication, we re-estimate our baseline equation (1) separately for each party, including both the share of population with higher education (an imperfect proxy for cognitive skills) and the number of voluntary associations per capita on the right-hand side of the equation. Both variables are measured in 1981 (i.e., prior to the expansion of Mediaset). The equation is estimated pooling together all elections and including year fixed effects.

The results are reported in 5, in which we plot the coefficients of *Signal* on voting for each party against the corresponding coefficients for education (left graph) and for the number of voluntary associations (right graph). Both graphs display a strong negative relationship. This indicates that parties that fair worse among more educated and civic-minded voters – namely, *Forza Italia* and M5S – are precisely those that gained the most from the advent of Mediaset, while parties with higher support among these groups – notably the PD – were disadvantaged.²⁶

²⁶The estimated coefficients of interest and standard errors are reported in the top panel of Table A7 of Appendix A. In the bottom panel of the table we also interact *Signal* with both education and civic engagement, as the evidence in Figure 5 could alternatively be explained by heterogeneous effects of the entertainment TV across municipalities with different levels of education and civic engagement. However, the interaction coefficients are generally non-significant, so the relationship between the effect of Mediaset and the effects of education and civic engagement is unaffected when allowing for interaction effects; see Figure A8 in Appendix A.

Figure 5: The effect of exposure to Mediaset, education, and civic engagement on parties' electoral support



Note: The figure illustrates the relationship between the effect of exposure to Mediaset and the effects of education and civic engagement, respectively, on support for the main parties of the Second Republic. In particular, the left and right graphs plot the coefficient of *Signal* (vertical axis) against, respectively, the coefficients of schooling levels and civic engagement in 1981 (horizontal axis). The coefficients are estimated from estimating equation (1) separately for each party, pooling together results of all elections and including year fixed effects.

5.3.3 Additional evidence from political discourses

One reason populist leaders may be particularly appealing to less sophisticated voters is because they use a language that is more direct and easier for ordinary citizens to understand (Canovan, 1999; Moffitt and Tormey, 2014).²⁷ To test whether the communication style of Berlusconi is indeed more accessible than that of other Italian politicians, we assembled a large corpus of speeches by the main Italian political leaders. Specifically, we transcribed a total of 38 televised interventions by 15 politicians in two major talk shows between 1989 and 2014, for a total of over 50 hours of footage and 280,000 spoken words. We then assessed the simplicity of the language used by each politician based on the share of “commonly used words”, as defined by De Mauro and Vedovelli (1980), over total words. We focus on the simplicity of words rather than on the sentence structure because the evaluation of the latter is extremely sensitive to punctuation, which is rather subjective when transcribing spoken language to written text.²⁸

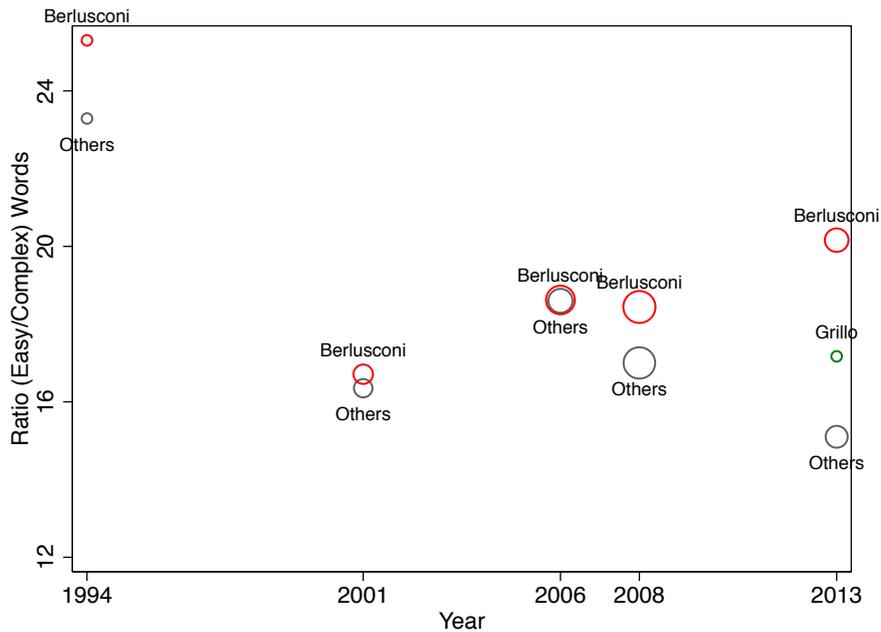
Figure 6 compares the language of Berlusconi with that of the other main politicians running in each election. For 2013, we report separately the simplicity score of Beppe Grillo, leader of the M5S, the only other party for which we find a positive significant effect

²⁷Some authors have even defined populism as a communication style, a “communication frame that appeals to and identifies with the people and pretends to speak in their name” (Jagers and Walgrave, 2007). For a survey of the most relevant contributions on the political communication of European populist parties see Aalberg et al. (2016).

²⁸The two talk shows are: *Porta a Porta*, broadcast on RAI 1 since 1996; and *Mixer*, broadcast on RAI 2 from 1980 to 1996. In the former case, we included all the appearances of the main coalition leaders before each election, in the latter case we included all appearances by the the main political leaders of the First Republic that we could find available on the Internet. Appendix F provides the full list of transcripts (Table A11) as well as additional details on the measure of language simplicity.

of early exposure to entertainment TV. Our results indicate that Berlusconi’s language is systematically simpler than that of competing politicians, both in the 1990s and in later decades. Interestingly, for 2013 we find that Grillo also uses a simpler language than all mainstream politicians other than Berlusconi. This evidence is consistent with the hypothesis that a more accessible communication style may be partly responsible for the greater support of early Mediaset viewers for Berlusconi (and, to a lesser extent, for other populist leaders).

Figure 6: Language simplicity of Italian political leaders



Note: The Figure illustrates the relative simplicity of Berlusconi’s political language compared to other politicians in televised interventions over the period 1994-2013. Language simplicity is calculated as the ratio between words included (i.e. easy) and not-included (i.e. complex) in the Basic Italian Vocabulary (De Mauro and Vedovelli, 1980), described in greater detail in Appendix F. Higher values indicate a more accessible political language. The Figure also reports the individual score of language simplicity for Grillo in 2013. The aggregated value for other politicians is a weighted average based on the total word count of their interventions. The size of the circles indicates the total number of words over which the index is calculated in a given year.

5.3.4 Additional mechanisms

The results presented so far suggest that early exposure to entertainment TV influenced political preferences through an impoverishment of cognitive skills and civic engagement (for younger cohorts) and through later exposure to biased news (for older cohorts). We next consider two additional mechanisms. First, Mediaset viewers may have simply been more likely to know who Berlusconi was when he first ran for office. Second, and relatedly, early Mediaset viewers may have been more sympathetic towards Berlusconi out of gratitude for the unprecedented entertainment opportunities offered by his channels.

To investigate these hypotheses, we exploit additional survey data on Berlusconi’s popularity. We estimate the same baseline specification as in column (3) of Table 6. Our

first data source is a poll conducted by Italian pollster SWG in 1993 – before Berlusconi even entered politics – in which respondents were asked to identify up to two individuals that “had done most for Italy”. A fairly high share of respondents (13.3%) indicated Berlusconi as one of their choices, but there is no correlation with better access to Mediaset in 1985; see column (1) of Table 8. In the remaining columns of the table, we exploit information about knowledge and perceptions of Berlusconi available from some waves of the ITANES survey. More than 90% of respondents already knew Berlusconi when he first entered politics in 1994; most importantly, there are no significant differences between areas with earlier or later access to Mediaset. The subsequent waves of the survey include questions about specific qualities (e.g., honesty, sincerity, or statesmanship). We find little evidence that early Mediaset viewers were more likely to evaluate Berlusconi more positively: of the six coefficients in columns (3) to (8), only one is significantly different from zero. The effect on the overall rating of Berlusconi, on a scale between 1 and 10, is also not significantly different from zero (column 9).

These findings seem to exclude that early Mediaset viewers had either a better knowledge of Berlusconi or a better opinion about him. Indeed, “name recognition” hardly played any role in the elections after 1994, when Berlusconi became Italy’s best known politician. Also, better opinions about Berlusconi would be hard to reconcile with the positive effect of early exposure to Mediaset on voting for the M5S, which has traditionally been very critical of Berlusconi’s conduct.

Overall, we conclude that early Mediaset viewers did not idealize Berlusconi’s qualities as a man and a politician. Rather, they appear to filter such qualities through a different system of values, presumably influenced by their prior exposure to Mediaset. This is also consistent with the fact that they later abandoned Berlusconi, but remained nevertheless receptive to the propaganda of another populist leader, namely Grillo.

Table 8: Exposure to Mediaset and opinions about Berlusconi

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Done most for Italy (1993)	Don’t know him (1994)	Qualified	Honest	Coherent	Sincere	Trustworthy	Statesman	Rating [1-10]
<i>Signal</i>	0.075 (0.068)	-0.004 (0.017)	0.015 (0.029)	0.008 (0.018)	-0.051 (0.039)	-0.034 (0.040)	0.053** (0.027)	-0.035 (0.042)	0.078 (0.071)
Baseline	0.132	0.094	0.619	0.352	0.626	0.581	0.518	0.629	5.37
Observations	519	2,525	4,725	6,956	2,600	2,522	4,802	2,598	12,613

Note: The table illustrates the effect of early exposure to Mediaset on knowledge and opinions about Berlusconi. The sample used in column (1) includes individuals surveyed in the context of a poll conducted by SWG in 1993. For the remaining columns the sample includes individuals interviewed in the context of the Italian National Election Study (ITANES) surveys conducted between 1994 and 2013. Each entry reports the estimated coefficient (and corresponding standard error) of *Signal* from a regression including *SignalFree*, province fixed effects, election year fixed effects, all municipal controls reported in Table 3, and the following individual characteristics: *Education*, *Gender*, *Age*, *Employment status*, *Marital status*, and *Number of family members*. The dependent variable is a dummy for whether the respondent mentioned Berlusconi as one of the public figures who had done most for Italy in 1993 (column 1), a dummy for whether the respondent did not know who Berlusconi was (column 2), a dummy for whether the respondents believed Berlusconi to possess a specific quality (columns 3 to 8), and the overall rating on a 1-10 scale (column 9). Standard errors clustered at the municipal level in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

6 Conclusion

How does television affect viewers' political preferences? While much research has focused on the political impact of news content, the possibility that exposure to entertainment programs may also shape political attitudes remains largely unexplored.

We examine this question by studying the consequences of the introduction of commercial television in Italy in the 1980s. We find that areas with early access to light entertainment TV channels prior to 1985 displayed higher vote shares for Berlusconi's party, *Forza Italia*, in 1994, when he first ran for office. This effect is quite sizable (about 1.5%), it persists over five elections, and is more pronounced for individuals first exposed to entertainment TV at a young age. Regarding possible mechanisms, we show that individuals exposed to entertainment TV as children became both less cognitively sophisticated and less civic-minded as adults, and hence potentially more vulnerable to Berlusconi's rhetoric. In line with this explanation, the political effect of entertainment TV extends to another party, the Five-Star Movement (M5S), that shares with *Forza Italia* a distinctively populist rhetoric. Indeed, both parties are especially popular among less educated and less civic-minded voters.

Our findings offer the first systematic evidence that exposure to entertainment television influences voting behavior, and suggests that this effect is mediated by deeper cognitive and cultural transformations. Though specific to the Italian case, our analysis provides more general insights into how the cultural codes popularized by entertainment media can influence political preferences.

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Web Appendix – Not for publication

Appendix A Additional tables and figures

Figure A1: Vote share of the main political parties and coalitions in Italian National Elections (1994-2013)

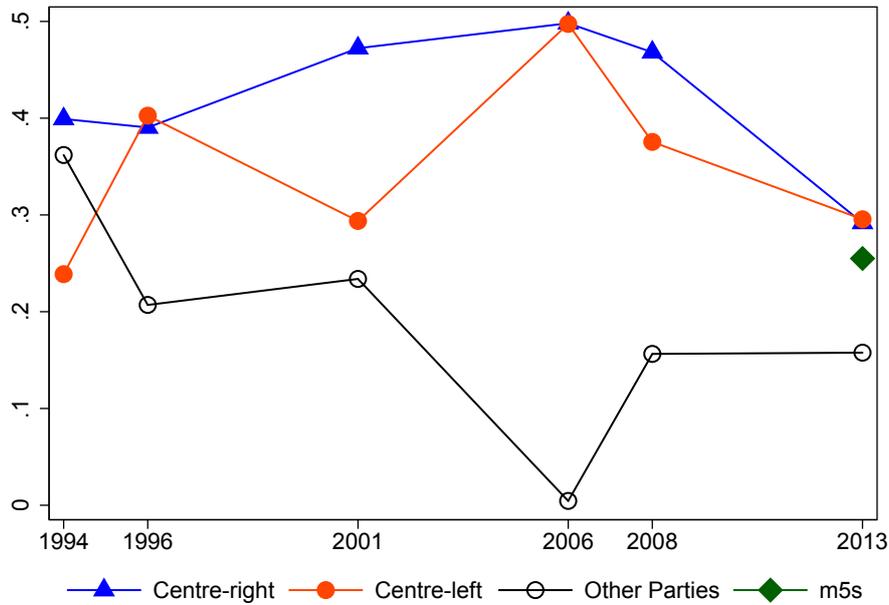


Table A1: Descriptive statistics

	unweighted sample				weighted by population in 1981			
	obs.	mean	st.dev.	median	obs.	mean	st.dev.	median
Signal strength in 1985 (<i>Signal</i>)	8010	-0.388	1.000	-0.230	7988	0.010	0.830	0.014
Signal strength in the free space (<i>SignalFree</i>)	8010	-0.055	1.000	-0.238	7988	0.360	1.154	0.210
Population in 1981 (ths.)	7988	7.061	45.654	2.317	7988	302.19	684.30	24.44
Surface area (100s sq. Km)	8014	0.372	0.500	0.217	7988	1.559	2.832	0.629
Altitude (ths. mt.)	8014	0.352	0.291	0.288	7988	0.180	0.210	0.112
Ruggedness	8003	219	210	162	7978	127	147	70
Electorate	8014	6.034	36.042	2.070	7988	239.01	548.47	21.80
Log of income per capita	7913	1.619	0.298	1.674	7908	1.729	0.300	1.768
Education, % higher education in 1981	7988	8.538	3.448	8.128	7988	13.261	5.857	12.035
Voluntary associations X 100 inhabitants, 1981	7584	9.929	13.355	5.621	7584	10.313	8.492	8.665

Table A2: Exposure to Mediaset and voting for the main Italian parties, 1976-1992 (balance test, matching estimates)

Dependent variable	(1)	(2)	(3)	(4)
	mean	matching neighbors		
Italian Communist Party, 1976	33.332 (0.137)	-0.489 (0.331)	-0.362 (0.360)	-0.305 (0.418)
Pentapartito, 1976	54.95 (0.131)	0.249 (0.324)	0.141 (0.357)	0.043 (0.409)
Other parties, 1976	9.027 (0.082)	0.290*** (0.108)	0.221* (0.127)	0.229 (0.147)
Italian Communist Party, 1979	28.966 (0.138)	-0.415 (0.309)	-0.386 (0.330)	-0.276 (0.383)
Pentapartito, 1979	55.153 (0.128)	0.341 (0.320)	0.318 (0.353)	0.243 (0.404)
Other parties, 1979	11.672 (0.081)	0.053 (0.124)	0.040 (0.148)	0.059 (0.165)
Italian Communist Party, 1983	28.003 (0.138)	-0.459 (0.321)	-0.471 (0.353)	-0.364 (0.402)
Pentapartito, 1983	53.607 (0.126)	0.462 (0.328)	0.596 (0.366)	0.490 (0.417)
Other parties, 1983	12.522 (0.082)	0.130 (0.137)	0.025 (0.161)	0.115 (0.197)
Italian Communist Party, 1987	25.223 (0.133)	-0.674** (0.305)	-0.615* (0.335)	-0.470 (0.379)
Pentapartito, 1987	54.73 (0.128)	0.484 (0.308)	0.497 (0.340)	0.451 (0.386)
Other parties, 1987	15.056 (0.088)	0.173 (0.130)	0.126 (0.142)	0.096 (0.169)
Italian Communist Party, 1992	15.171 (0.105)	-0.421* (0.231)	-0.475* (0.264)	-0.401 (0.316)
Pentapartito, 1992	50.586 (0.145)	0.455 (0.287)	0.434 (0.327)	0.571 (0.363)
Other parties, 1992	28.773 (0.136)	-0.100 (0.182)	-0.023 (0.213)	-0.162 (0.240)
$\Delta SignalFree$ less than:		1	0.5	0.25

Note: The table reports the average vote shares obtained by the main parties and coalitions in each election between 1976 and 1992 (column 1) and their correlation with early exposure to Mediaset (columns 2-4). Specifically, columns (2), (3), and (4) compare vote shares between neighboring municipalities that differ in *SignalFree* by less than 1 dB, 0.5 dB, and 0.25 dB, respectively, with one municipality having *Signal* above zero and the other one having *Signal* below zero. We form a sample of such neighbor-pairs and regress vote shares on *Signal*, controlling for neighbor-pair fixed effects (since each municipality can appear in more than one pair) and for terrain characteristics. Heteroskedasticity-robust standard errors clustered at the municipality level are reported in parentheses. *** p<0.01, **p<0.05, * p<0.1.

Table A3: Exposure to Mediaset and municipality characteristics (balance test, matching estimates)

	(1)	(2)	(3)	(4)
Dependent variable:	mean	matching neighbors		
Population (1981)	6.940 (0.511)	3.431* (1.956)	2.789 (2.700)	1.911 (1.686)
Population growth (1981-2001)	0.033 (0.003)	-0.002 (0.006)	-0.001 (0.007)	0.001 (0.009)
Activity rate (1991)	42.260 (0.046)	0.137 (0.114)	0.057 (0.130)	0.081 (0.155)
Employment rate (1991)	35.084 (0.087)	-0.074 (0.112)	-0.143 (0.126)	-0.146 (0.148)
Unemployment rate (1991)	6.933 (0.047)	-0.017 (0.123)	-0.050 (0.146)	0.003 (0.168)
Ln income per capita (1985)	1.739 (0.003)	0.008 (0.006)	0.004 (0.007)	0.003 (0.007)
Education (1981)	13.187 (0.068)	0.378*** (0.131)	0.123 (0.138)	0.011 (0.158)
Voluntarily association (1981)	0.103 (0.001)	0.195 (0.457)	-0.256 (0.576)	-0.277 (0.754)
Firms per capita (1981)	0.051 (0.000)	-0.002*** (0.001)	-0.002*** (0.001)	-0.001 (0.001)

Note: The table reports the mean of municipality characteristics (column 1) and their correlation with early exposure to Mediaset (columns 2-4). Specifically, columns (2), (3), and (4) compare variables between neighboring municipalities that differ in *SignalFree* by less than 1 dB, 0.5 dB, and 0.25 dB, respectively, with one municipality having *Signal* above zero and the other one having *Signal* below zero. We form a sample of such neighbor-pairs and regress vote shares on *Signal*, controlling for neighbor-pair fixed effects (since each municipality can appear in more than one pair) and for terrain characteristics. Heteroskedasticity-robust standard errors clustered at the municipality level are reported in parentheses. *** p<0.01, **p<0.05, * p<0.1.

Table A4: Exposure to Mediaset and voting for main political parties (robustness to including all observations)

Party ↓ Election →	1994	1996	2001	2006	2008	2013
Forza Italia	0.494*** (0.152)	0.323** (0.128)	0.259 (0.162)	0.371** (0.156)	0.476*** (0.175)	0.068 (0.167)
allies of Forza Italia	0.120 (0.180)	0.064 (0.173)	-0.087 (0.137)	0.070 (0.117)	-0.045 (0.089)	0.019 (0.041)
centre parties	-0.145 (0.143)	-0.177** (0.086)	-0.152 (0.146)	0.020 (0.102)	-0.205** (0.103)	0.012 (0.085)
Democrat Party	-0.359 (0.220)	-0.288 (0.187)	-0.227 (0.170)	-0.274 (0.192)	-0.251 (0.187)	-0.214 (0.164)
allies of Democrat Party	-0.025 (0.072)	0.019 (0.085)	-0.039 (0.108)	-0.111 (0.152)	-0.037 (0.054)	-0.056 (0.044)
extreme left	-0.036 (0.087)	0.046 (0.085)	0.095 (0.093)	0.036 (0.098)	0.043 (0.054)	-0.022 (0.062)
M5S						0.424*** (0.142)
other parties	-0.030 (0.093)	-0.002 (0.063)	0.056 (0.064)	-0.060 (0.040)	-0.003 (0.107)	-0.180 (0.112)
null	-0.019 (0.083)	0.015 (0.091)	0.096 (0.109)	-0.052 (0.035)	0.023 (0.053)	-0.051 (0.040)
turnout	0.221 (0.221)	0.256 (0.239)	0.325 (0.224)	0.283** (0.136)	0.206 (0.139)	0.399** (0.161)

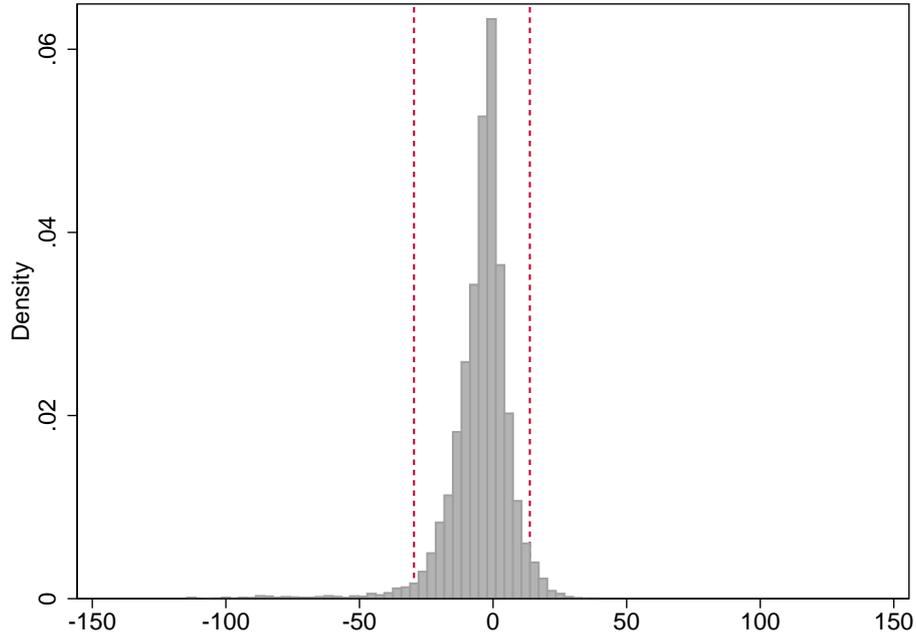
Note: The table replicates the analysis in Table 4 including all observations in the sample (i.e., not trimming observations in the top and bottom 2.5% of the distribution of *Signal*). Each entry in the table reports the estimated coefficient (and standard error) of *Signal* in an OLS regression controlling also for *SignalFree*, *Area*, *Altitude*, *Area*², *Altitude*², *Ruggedness*, *Electorate*, *Log income per capita*, *Education*, electoral district and local labor market fixed effects. Observations are weighted by municipality population in 1981. Standard errors clustered at the electoral district level in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table A5: Exposure to Mediaset and voting for main political parties (robustness to winsorizing *Signal*)

Party ↓ Election →	1994	1996	2001	2006	2008	2013
Forza Italia	0.729*** (0.218)	0.567*** (0.186)	0.524** (0.253)	0.606** (0.248)	0.716** (0.281)	0.094 (0.251)
allies of Forza Italia	0.110 (0.284)	0.016 (0.264)	-0.128 (0.178)	0.083 (0.166)	-0.131 (0.119)	-0.043 (0.066)
centre parties	-0.212 (0.218)	-0.201 (0.129)	-0.143 (0.183)	0.038 (0.137)	-0.226 (0.144)	0.011 (0.120)
Democrat Party	-0.539 (0.351)	-0.521* (0.302)	-0.438 (0.266)	-0.447 (0.308)	-0.502* (0.299)	-0.349 (0.245)
allies of Democrat Party	-0.055 (0.104)	-0.021 (0.131)	0.082 (0.157)	-0.125 (0.192)	0.004 (0.077)	-0.055 (0.066)
extreme left	-0.129 (0.125)	-0.021 (0.126)	0.005 (0.136)	-0.048 (0.140)	-0.014 (0.073)	-0.158* (0.084)
M5S						0.678*** (0.209)
other parties	0.013 (0.149)	0.083 (0.079)	0.101 (0.085)	-0.064 (0.061)	0.120 (0.143)	-0.135 (0.145)
null	0.083 (0.119)	0.099 (0.110)	-0.003 (0.145)	-0.043 (0.044)	0.033 (0.072)	-0.043 (0.057)
turnout	0.468 (0.320)	0.576 (0.357)	0.533 (0.346)	0.403* (0.208)	0.313 (0.206)	0.592*** (0.220)

Note: The table replicates the analysis in Table 4 when winsorizing values of *Signal* in the top and bottom 2.5% of the distribution (as opposed to trimming the sample). Each entry in the table reports the estimated coefficient (and standard error) of *Signal* in an OLS regression controlling also for *SignalFree*, *Area*, *Altitude*, *Area*², *Altitude*², *Ruggedness*, *Electorate*, *Log income per capita*, *Education*, electoral district and local labor market fixed effects. Observations are weighted by municipality population in 1981. Standard errors clustered at the electoral district level in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Figure A2: Distribution of Mediaset signal intensity in 1985



Note: The figure reports the distribution of signal intensity in 1985 across Italian municipalities. The dashed red lines indicate the top and bottom 2.5% of the distribution.

Table A6: Exposure to Mediaset and voting for M5S (robustness to controlling for broadband Internet)

	(1)	(2)	(3)
<i>Signal</i>	0.522** (0.243)	0.476** (0.241)	0.487** (0.241)
Broadband Access (avg 2005-2010)		0.224*** (0.050)	
Years with full access (from 2005 to 2010)			0.078** (0.032)
Observations	7,519	7,482	7,482
R2	0.866	0.868	0.867

Note: The table shows the effect of exposure to Mediaset on voting for the M5S controlling for broadband Internet access. In column (2) we control for the average share of households in the municipality with access to broadband Internet (via ADSL) between 2005 and 2010. The measure is defined on an asymmetric 6-point scale ranging from 0 (0%) to 5 (above 95%). In column (3) we control for an alternative measure of broadband access, i.e., the number of years, from 2005 to 2010, during which 95% or more of the households in the municipality had access to Internet; this measure ranges from 0 (no full access in 2010) to 6 (full access in 2005). In addition, all regressions control for the other variables included in the baseline specification in Table 3: *SignalFree*, area, area², altitude, altitude², ruggedness, number of voters, log of income per capita, education, electoral district and local labor market fixed effects. Observations are weighted by municipality population in 1981. Standard errors clustered at the electoral district level in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Figure A3: Example of a technical report sheet for one of the Mediaset transmitters active in 1985

SCHEDA B IMPIANTO PRIVATO RADIOFONICO TV

ATTENZIONE Se l'impianto e' di solo collegamento al deve rispondere soltanto ai punti 36,37,38,39,40,41 ed ai punti dal 58 al 68.
 Per la 'nessa in onda' si risponde soltanto ai punti 36,37,38,39,40,41.
 Per i ripetitori di programmi esteri o nazionali non va compilata ovviamente la scheda di 'nessa in onda', ma va indicato al punto 67 per il solo primo impianto della catena, la stazione straniera o RAI ricevuta; gli impianti successivi vanno trattati normalmente.

R.F.T.E. SICILIA 36 Denominazione emittente 37 N. impianto

GALATI, MAMERTINO, S. JACOPO 38 Indirizzo impianto Tx o nome localita'

39 Centro abitato

ME 40 GALATI, MAMERTINO Provincia Comune

DIREZIONE CENTRALE SERVIZI RADIOELETTRICI
 31 GEN. 1985
 DCSR/SEGR/ 106064

144630 42 Longitud. 43 Lat. (antenna) 44 Quote s.l.m.

45 46 47 48
 Tipologia della ubicazione dell'impianto

63425 50 Portante 51 Portante audiolper TV 52 Canale (TV) 53 Tipo offset 54 Posiz. offset (TV)

55 Potenza apparato 56 Costruttore apparato 57 Anno costruzione

58 Riceve il segnale da: 59 o da: 60 o da:

61 Mediante 62 Mediante: 63 Mediante 64 Riceve il segnale da:

65 Freq. (MHz) 66 Freq. (MHz) 67 Freq. (MHz) 68 Freq. (MHz)

ME 69 Sigle province interessate dal serv. di radiodiff. 70 Tipo di servizio

71 Localita' 1 esclusa deliberatamente dal servizio 72 Prov. 73 Metodo usato

74 Localita' 2 esclusa deliberatamente dal servizio 75 Prov. 76 Metodo usato

77 Localita' 3 esclusa deliberatamente dal servizio 78 Prov. 79 Metodo usato

Figure A4: Electoral districts, local labor markets, and provinces



Figure A5: Estimated expansion of Mediaset coverage, 1980-1990

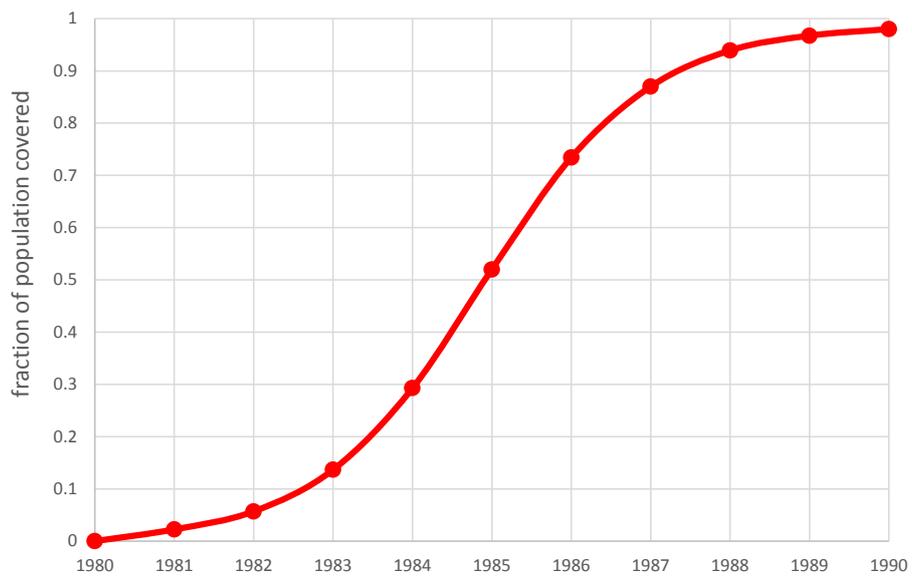
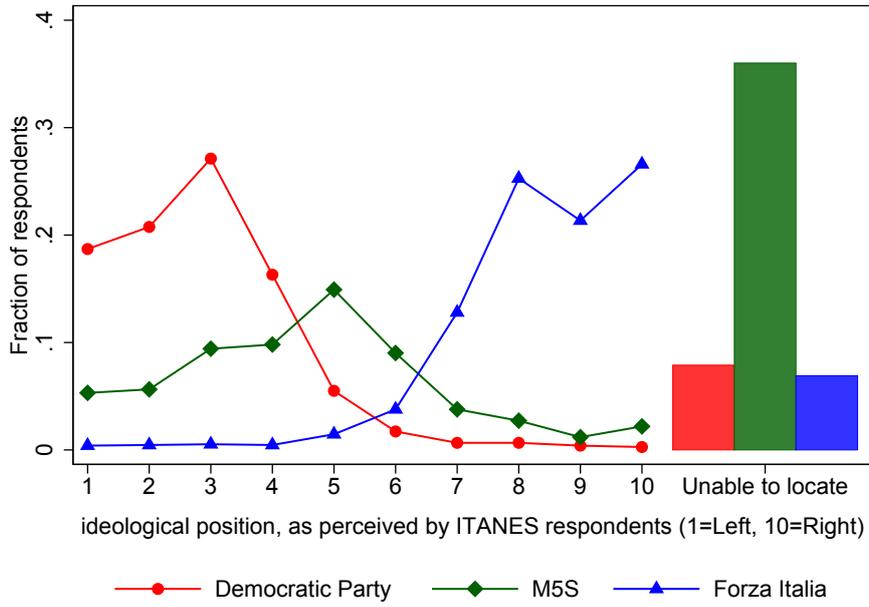
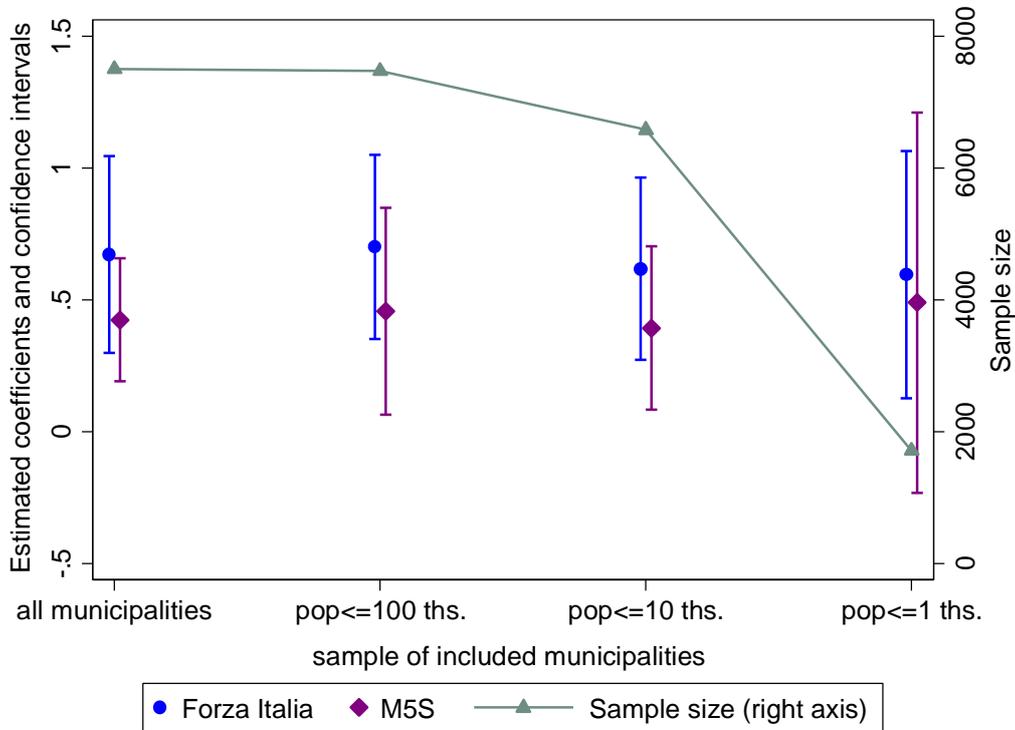


Figure A6: Perceived ideology of *Forza Italia*, M5S, and Democratic Party



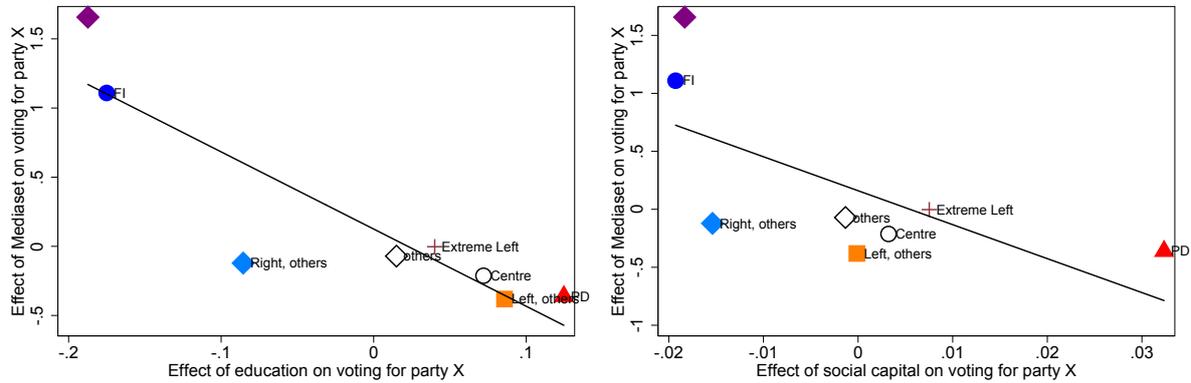
Note: The figure reports the perceived ideological stance of *Forza Italia*, the M5S, and the Democratic Party, as reported by respondents of the ITANES survey.

Figure A7: Effect across smaller municipalities



Note: The Figure shows the estimated coefficients and confidence intervals for *Forza Italia* and the M5S when replicating the baseline specification (Table 4) across municipalities with less than 100, 10, and 1 thousand inhabitants, respectively. The graph also shows, on the right axis, the number of municipalities included in the sample.

Figure A8: The effects of Mediaset, education, and social capital on voting (accounting for interaction effects)



Note: The figure replicates the analysis in Figure 5 after interacting *Signal* with education and civic engagement. In particular, the left and right graphs plot the coefficient of *Signal* (vertical axis) against, respectively, the coefficients of schooling levels and civic engagement in 1981 (horizontal axis). The coefficients are obtained by estimating equation (1) separately for each party, including in addition interactions of *Signal* with education and civic engagement. All specifications pool together results of all elections and include year fixed effects.

Table A7: The effects of Mediaset, education, and social capital on voting

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Forza Italia	Right, others	Centre	Democrat Party	Left, others	Extreme Left	M5S	other parties
<i>Signal</i>	0.665*** (0.231)	-0.164 (0.195)	-0.063 (0.111)	-0.390 (0.284)	-0.134 (0.097)	-0.196* (0.103)	0.523** (0.246)	0.094 (0.072)
<i>Education</i>	-0.171*** (0.040)	-0.086** (0.041)	0.070*** (0.014)	0.126*** (0.035)	0.084*** (0.010)	0.041*** (0.013)	-0.176*** (0.030)	0.013 (0.014)
<i>Social Capital</i>	-0.018*** (0.007)	-0.014*** (0.005)	0.004 (0.003)	0.029*** (0.008)	-0.001 (0.002)	0.009*** (0.003)	-0.014** (0.006)	-0.002 (0.002)
R-squared	0.716	0.831	0.657	0.853	0.691	0.722	0.867	0.444
Including additional interaction terms:								
<i>Signal</i>	1.109*** (0.394)	-0.121 (0.349)	-0.212 (0.180)	-0.361 (0.460)	-0.381 (0.310)	-0.003 (0.171)	-0.071 (0.195)	1.657*** (0.417)
<i>Education</i>	-0.175*** (0.041)	-0.086** (0.042)	0.072*** (0.014)	0.125*** (0.035)	0.086*** (0.010)	0.040*** (0.013)	0.015 (0.014)	-0.187*** (0.030)
<i>Social Capital</i>	-0.019*** (0.007)	-0.015*** (0.005)	0.003 (0.003)	0.032*** (0.009)	-0.000 (0.002)	0.008** (0.004)	-0.001 (0.002)	-0.018*** (0.007)
<i>Signal X Education</i>	-0.046 (0.037)	0.002 (0.036)	0.020 (0.017)	-0.017 (0.040)	0.026 (0.026)	-0.017 (0.017)	0.018 (0.017)	-0.113*** (0.040)
<i>Signal X Social Capital</i>	-0.003 (0.010)	-0.005 (0.007)	-0.003 (0.004)	0.011 (0.012)	0.002 (0.004)	-0.004 (0.005)	0.001 (0.003)	-0.012 (0.008)
R-squared	0.716	0.831	0.657	0.853	0.691	0.722	0.444	0.868
Observations	45,009	45,009	45,009	45,009	45,009	45,009	7,503	45,009

Note: This table reports OLS estimates of the effect of education, social capital, and early exposure to Mediaset on the vote share of the main Italian parties – reported on top of each column – between 1994 and 2013. *Signal* is Mediaset signal strength in 1985, *Education* is the share of people with secondary or tertiary education, and *Social Capital* is the number of voluntary associations for every 100,000 inhabitants. The regressions in the bottom panel also interact *Signal* with *Education* and *Social Capital*. All regressions pool together the results of all elections between 1994 and 2013, and include on the right-hand side *SignalFree*, *Area*, *Altitude*, *Area²*, *Altitude²*, *Ruggedness*, *Electorate*, *Log income per capita*, and election, electoral district and local labor market fixed effects. Observations are weighted by municipality population in 1981. Standard errors clustered at the electoral district level are reported in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Appendix B Age composition of voting population and persistence of the Mediaset effect

To relate the persistence of the effect of Mediaset to the age composition of the voting population, we use individual data on electoral participation available from administrative records. Specifically, we use data from the Turnout Archive assembled by the ITANES-Cattaneo Institute. The dataset includes individual data on all registered voters for a representative sample of 100 ballot stations over the period 1994-2006 (which includes four national elections). Each station includes on average 550 voters, until 1998, and 800 voters, after 1998, for a total of 55,000 and 80,000 individuals respectively. The longitudinal dimension of the data makes it possible to follow the same electors over time. Crucially, the dataset also includes information about each individual's personal characteristics - including age, gender, education, and profession - which allows us to follow the evolution of electoral participation for different socio-demographic groups. Figure A9 shows the age distribution of the electorate in each election between 1994 and 2006.

Using these data, we explore the relationship between the persistence of the effect of Mediaset and the size of the two most affected groups, namely younger and older viewers. Indeed, while the average effect of Mediaset on the probability of voting for *Forza Italia* across all individuals is 2.9 percentage points, it is 7.8 percentage points for younger viewers (aged 10 or less in 1985), and 9.8 percentage points for older viewers (aged 55 or more in 1985). One possible explanation for the persistence of the effect over two decades is that younger cohorts, who joined the voting population in or after 1994, progressively replaced the older ones who were gradually exiting, thus leaving the overall share of voters affected by Mediaset largely unaffected. Weighting the estimated effect of Mediaset for each of these age groups by their relative size in the voting population, in Table A8 we compute the implied effect of Mediaset in each election between 1994 and 2006. The table shows that, together, young and old viewers account for roughly 20 percent of total voters in 1994. This share is very stable in subsequent elections, as the increase in the number of young treated individuals almost exactly compensates for the reduction in the number of old treated ones. This back-of-the-envelope calculation indicates that the extreme persistence of the effect of Mediaset is largely consistent with the fact that the youngest and oldest cohorts, who spent more time watching TV in 1985, were more influenced by Mediaset content.

Figure A9: Age distribution of voters in national elections, 1994-2006

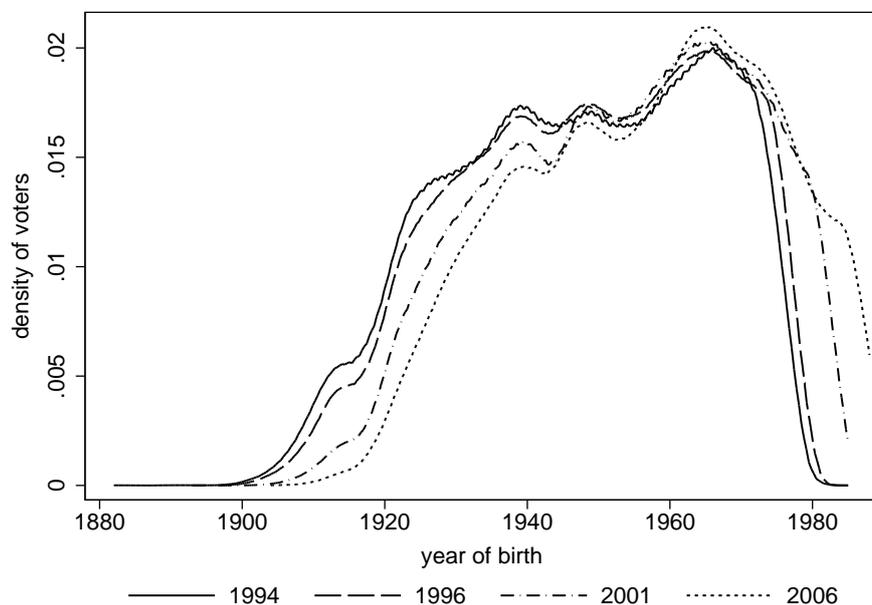


Table A8: Distribution of voting population and implied effect of Mediaset by age group and election (1994-2006)

	1994	1996	2001	2006
Share of voters 55 or older in 1985 (born on or before 1930)	0.21	0.18	0.13	0.09
Share of voters below 10 in 1985 (born after 1975)	0.01	0.02	0.10	0.14
Share of voters below 10 or 55+ in 1985	0.22	0.20	0.23	0.23
Implied effect of Mediaset on voting for Forza Italia	0.022	0.019	0.021	0.019

Note: The table reports the distribution of voting population and the implied effect of Mediaset on voting for *Forza Italia* by age group for each election held between 1994 and 2006. The implied effect of Mediaset (last row) is computed by multiplying the share of younger and older voters (first two rows) by the coefficients estimated for such age groups (reported in the right graph of Figure 4).

Appendix C Data on adult literacy and numeracy test scores

Data on adult cognitive skills are available from the OECD Program for the International Assessment of Adult Competencies (PIAAC). PIAAC surveys were conducted in 32 countries over two rounds between 2008 and 2016 (a third round is currently ongoing). In each country, 5,000 individuals, representative of the adult population between 16 and 65 years, were interviewed with the aim of assessing their level of literacy and numeracy skills, as well as their ability to solve problems in technology-rich environments. Tests were conducted in each country's national language, but were standardized to allow for cross-national comparison. Prior to the actual assessment, the interviewer would administer a background questionnaire, which would usually take between 30 and 45 minutes. Depending on the respondents computer skills, the assessment could be performed either in computer-based or paper-based format, and would on average take about 50 minutes. In the computer-based version, the literacy and numeracy assessments had an adaptive design, i.e., respondents were directed to more or less difficult blocks of questions based on their performance in the previous ones, so that the final score would take into account both the number of correct answers and the difficulty of the items answered. Overall score in the literacy and numeracy tests ranges between 0 and 500. For ease of interpretation, the score maps into six proficiency levels (from 0 to 5), each of which is described in terms of the types of tasks adults can successfully complete (OECD, 2013; Clair, 2014). The PIAAC literacy tests ask respondents to answer questions about texts that are drawn from a broad range of real life settings, including occupational, personal, community and education contexts. The numeracy tests ask respondents to answer questions about quantities and numbers, dimensions and shapes, patterns, relations, and changes. For our analysis we use data from the assessments conducted in Italy in 2012 on a sample of 4,598 individuals representative at the national level. We obtained access to a restricted-use version of the data that includes information on respondents' personal characteristics (i.e., age, gender, educational attainment, marital status) and on their municipality of residence, which allows us to assign to each respondent a level of Mediaset signal strength as of 1985.

Appendix D Military psychological tests

Information on aptitude test scores of military conscripts is available from the records of the Italian Defense Ministry. Compulsory military service for adult males was established in Italy in 1863. It was abolished in 2005 and replaced by voluntary service. Our data cover the universe of male conscripts born between 1973 and 1978 (for a total of 2.4 million individuals), which largely corresponds to the first age group in Table 7. Once they reached adult age, conscripts were subject to a medical examination to assess their physical and psychological suitability for service. Data include information on health conditions, anthropometric and socio-economic characteristics, place of birth, results of physical and psychological examinations, and a measure of general intelligence.²⁹

Our analysis focuses on the general intelligence score. Based on performance in the Minnesota Multiphasic Personality test - a standardized psychometric test used to elicit individual personality traits - with a measure that ranges from 1 (lowest score) to 7 (highest score). The Minnesota test was designed to assess a broader spectrum of personality traits than just pure cognitive abilities. Hence, the general intelligence score is a noisier and less informative measure of cognitive skills than the scores in the standardized literacy and numeracy tests used in the PIACC program. Our final sample consists of 1.5 million individuals, since information is missing for 35% of conscripts. The average general intelligence score is 5.09, and less than 3% of individuals scored below or equal to 2, the threshold for being dispensed from service.

Table A9 reports the estimated effect of signal on the general intelligence score (columns 1 and 2) and on the probability of being dispensed from service (column 3 and 4). The results are consistent with those obtained using data from PIAAC, confirming the detrimental effect of entertainment TV on young viewers' cognitive achievement.

²⁹Peracchi and Arcaleni (2011) use the same military service records to investigate the evolution of physical characteristics of Italian young men.

Table A9: Exposure to Mediaset and score in military psychological examination

	(1)	(2)	(3)	(4)
	Assessment score		Dispensed from service	
<i>Signal</i>	-0.035	-0.042**	0.005**	0.004*
	(0.021)	(0.021)	(0.002)	(0.002)
Observations	1,368,313	1,368,313	1,368,313	1,368,313
Province FE	Yes	Yes	Yes	Yes
Electoral district FE	No	Yes	No	Yes

Note: The table illustrates the effect of early exposure to Mediaset on the performance in military psychological examination at time of conscription for all Italian men born between 1973 and 1978. Each entry reports the estimated coefficient (and corresponding standard error) of *Signal* from a regression including *SignalFree*, province fixed effects, all municipal controls reported in Table 3, and the following additional municipal controls: *unemployment rate*, *activity rate*, *per capita firms in 1981*, *population density in 1981*, *population growth 1981-2001*, *distance to the coast*, *dummy for the municipality being landlocked*. The dependent variable is the score in the psychological examination on a scale from 1 to 7 (in columns 1 and 2), and a dummy for being dispensed from military service - scoring 2 or less in the examination (columns 3 and 4). The specifications in columns (2) and (4) also control for electoral district fixed effects. Standard errors clustered at the municipal level in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Appendix E Exposure to Mediaset and voluntary associations across municipalities.

In Table A10 we investigate the relationship between exposure to Mediaset prior to 1985 and the evolution of civic engagement between 1981 and 2001 across municipalities, as measured by the number of civic associations. This is one of the measures of civic engagement used by Putnam (2000), and the only available at the municipal level since the 1980s.

In particular, we compute the number of civic associations per capita in 1981, 1991 and 2001 from the national census. Reassuringly, signal strength in 1985 is not correlated with the number of voluntarily associations in 1981, i.e. before the expansion of Mediaset (column 1). The relation between the two variables becomes negative and statistically significant after the introduction of Mediaset (columns 2 and 3). In column (4) we pool observations for all census years and interact *Signal* with a dummy for the period after exposure; we also include municipality fixed effects, thus exploiting only differential changes over time within the same municipality. The coefficient of the interaction term suggests that civic engagement declines in exposed municipalities, relative to other municipalities, in the period after exposure.

These results corroborate the individual-level evidence presented in column (4) of Table 7. The estimated effects are also quantitatively comparable: a one standard deviation increase in *Signal* is associated with a fifth of a standard deviation decline in civic engagement at the individual level, and a third of a standard deviation decline across municipalities.

Table A10: Exposure to Mediaset and voluntary associations across municipalities

	(1)	(2)	(3)	(4)
	1981	1991	2001	1981-2001
<i>Signal</i>	-0.001 (0.003)	-0.016** (0.007)	-0.023** (0.010)	
<i>Post1985</i>				0.222*** (0.005)
<i>Signal</i> × <i>Post1985</i>				-0.031*** (0.005)
Observations	7,898	7,503	7,503	23,964
Municipality FE	NO	NO	NO	YES
R-squared	0.434	0.486	0.690	0.549

Note: The table reports OLS estimates of the effect of early exposure to Mediaset on civic engagement across Italian municipalities. The dependent variable in columns (1)-(3) is the number of voluntary associations per capita in 1981, 1991, and 2001, respectively; in column (4), we pool all observations over the entire period. *Signal* is Mediaset signal strength in 1985, the regressions in columns (1)-(3) also control for *SignalFree*, *Area*, *Altitude*, *Area*², *Altitude*², *Ruggedness*, *Log income per capita*, *Education*, and *Population*, whereas the regression in column (4) includes municipality fixed effects. Regressions are weighted by municipality population in 1981. Heteroskedasticity-robust standard errors are clustered at the electoral district level in columns (1)-(3) and at the municipality level in column (4). *** p<0.01, ** p<0.05, * p<0.1.

Appendix F Data on politician language

To assess the relative simplicity of the language used by politicians we transcribe a set of 38 televised interventions by 15 top Italian politicians (including party and coalition leaders) delivered over the period 1989-2014 (for a total of over 50 hours of footage and nearly 280,000 words). Using this corpus, we compute, for each politician, the ratio between the number of “simple” words and the number of “complex” words appearing in his speeches. We consider as simple those words that belong to the Basic Vocabulary of Italian (BVI), and as complex those that do not. The BVI, originally compiled by De Mauro (1980), includes a set of 6,690 high-frequency and high-availability words that “are certainly known to the generality of those who have attended school at least until the eighth grade” (De Mauro, 1980). Words are included in the BVI based on their frequency in a large corpus of written and spoken Italian, as well as on their dispersion, i.e., the number of different texts in which they appear, and therefore provide a comprehensive picture of both written and spoken language. The share of high-frequency general-service words is commonly used by linguists to measure language complexity (see Batia Nation, 1995, and Read, 2000 for a comprehensive survey). We prefer to focus on word complexity, rather than sentence complexity, because the evaluation of the latter is very sensitive to punctuation, which is quite subjective when transcribing spoken language to written text, as in the case for televised interventions. Table A11 reports the full list of televised interventions included in the corpus; for each one it reports: the name of the politician(s)

that delivered the speech, the month, the year, the hosting program, and an indicator for whether the intervention was in the context of a debate with another politician or not.

Table A11: List of transcribed political speeches, 1989-2014

Politician(s)	Month	Year	Program	Debate
Craxi	May	1989	Mixer	No
De Mita	February	1993	Mixer	No
Andreotti	January	1993	Mixer	No
Berlusconi	January	1994	Mixer	No
Berlusconi	May	2001	Porta a Porta	No
Fassino, Fini	May	2001	Porta a Porta	Yes
Rutelli	May	2001	Porta a Porta	No
Berlusconi, Prodi	April	2006	Porta a Porta	Yes
Berlusconi, Fassino	June	2006	Porta a Porta	Yes
Fini, Rutelli	June	2006	Porta a Porta	Yes
Berlusconi	Marc	2006	Porta a Porta	No
D'Alema, Fini	March	2006	Porta a Porta	Yes
Prodi	March	2006	Porta a Porta	No
Berlusconi	April	2008	Porta a Porta	No
Casini	April	2008	Porta a Porta	No
Fini	April	2008	Porta a Porta	No
Veltroni	April	2008	Porta a Porta	No
Berlusconi	February	2008	Porta a Porta	No
Casini	February	2008	Porta a Porta	No
D'Alema	February	2008	Porta a Porta	No
Veltroni	February	2008	Porta a Porta	No
Berlusconi	March	2008	Porta a Porta	No
Bertinotti	March	2008	Porta a Porta	No
Bertinotti, Casini	March	2008	Porta a Porta	Yes
Casini	March	2008	Porta a Porta	No
Berlusconi	February	2013	Porta a Porta	No
Bersani	February	2013	Porta a Porta	No
Monti	February	2013	Porta a Porta	No
Berlusconi	January	2013	Porta a Porta	No
Bersani	January	2013	Porta a Porta	No
Monti	January	2013	Porta a Porta	No
Grillo	May	2014	Porta a Porta	No

Note: the table reports the list of televised interventions by top Italian politicians, carried out between 1989 and 2014, used for the text analysis in Section 5.3.3. For each intervention we report: the name of the politician(s) that delivered the speech, the month, the year, the hosting program, and an indicator for whether the intervention was in the context of a debate with another politician or not.

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