

The Political Legacy of Entertainment TV[†]

By RUBEN DURANTE, PAOLO PINOTTI, AND ANDREA TESI*

We study the political impact of commercial television in Italy exploiting the staggered introduction of Berlusconi's private 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 elderly. 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. (JEL D72, L82, M31, Z13)

There is extensive evidence that exposure to biased news on TV can influence viewers' voting decisions (DellaVigna and Kaplan 2007; Enikolopov, Petrova, and Zhuravskaya 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; Bursztyn and Cantoni 2016; La Ferrara, Chong, and Duryea 2012).² In addition, there is evidence that exposure to television at a young age can influence

*Durante: ICREA, Universitat Pompeu Fabra, IPEG, Barcelona GSE, and CEPR (email: rubendurante@gmail.com); Pinotti: Bocconi University, FRDB, CEPR, IRVAPP, and DONDENA (email: paolo.pinotti@unibocconi.it); Tesi: Queen Mary University, CEP (LSE), and CEPR (email: a.tesi@qmul.ac.uk). Luigi Pistaferri was the coeditor for this article. 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, Maria Petrova, Andrei Shleifer, Francesco Sobbrino, Joachim Voth, David Weil, Katia Zhuravskaya, four anonymous referees, 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, UPF, 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, and to Simona Mineo for her assistance with the PIAAC data. 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, Giovanni Sciacovelli for excellent research assistance, and Laura Litvine for her outstanding help with the digitization of the data on transmitters. A previous version of this paper circulated under the title "Voting Alone? The Political and Cultural Consequences of Commercial TV."

[†]Go to <https://doi.org/10.1257/aer.20150958> to visit the article page for additional materials and author disclosure statements.

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

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

cognitive skills, though with contrasting effects for educational and entertainment programs (Ennemoser and Schneider 2007; Kearney and Levine 2015b; Christakis et al. 2004; Hancox, Milne, and Poulton 2005; Zimmerman and Christakis 2007).

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 and movies; educational content was largely absent, and 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 content. 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, Mediaset coverage in 1985 may have been correlated with other local characteristics that could have affected 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 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 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. In particular, we show that estimates are virtually identical when restricting the sample to progressively smaller municipalities (up to less than 10,000 inhabitants). Since the political and economic return to covering such small municipalities was negligible, they were likely exposed or non-exposed "by chance" as local TV networks (later incorporated into Mediaset) expanded to cover larger cities.

The effect on voting for *Forza Italia* is also very persistent, lasting until 2008: 5 elections and almost 25 years after municipalities were differentially exposed to Mediaset, and 15 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.

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

Interestingly, when the effect on Berlusconi's party vanishes, in the 2013 elections, we find that municipalities exposed earlier to Mediaset exhibit higher support for the Five Star Movement (M5S), a new populist party that first ran for election in that year. Despite clear ideological differences, the M5S shares with *Forza Italia* a distinctively populist rhetoric (Jones and Pasquino 2015). Additional evidence from individual-level surveys confirms that voters exposed to Mediaset earlier on tend to be more receptive to populist messages, rather than adhering to traditional right-wing values. These findings suggest that exposure to entertainment TV made viewers more supportive of populist movements and leaders in general, and not just of Berlusconi or the conservative camp.

To further validate our results and to explore the mechanism(s) through which entertainment TV influenced political preferences, we combine information on early Mediaset access with individual-level data on TV consumption, cognitive abilities, and social attitudes. Reassuringly, we find that the effect of Mediaset is especially pronounced for heavy TV viewers. In particular, the effect is much larger, close to 10 percentage points, for individuals exposed either as children (below age 10) or at older ages (55 and above), precisely the cohorts who watch 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 adulthood, 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 noncognitive 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 and of party manifestos, we show that, compared to other political leaders, Berlusconi and his party use a language that is more accessible to less sophisticated voters. Both in terms of voter profiles and political language, we find that a similar pattern applies to M5S and its leader Beppe 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 at older ages we find, instead, that the latter developed a strong attachment to the network, making them more likely to watch news programs on Mediaset channels after these were introduced in 1991. The larger support for Berlusconi among these cohorts could therefore be due to exposure to the strong pro-Berlusconi bias of Mediaset newscasts (Durante and Knight 2012; Barone, D'Acunto, and Narciso 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 of DellaVigna and Kaplan

(2007) on the effect of Fox News on support for Republicans, and of Enikolopov, Petrova, and Zhuravskaya (2011) on the negative impact of the independent Russian channel NTV on support for Putin. In this regard, our work is especially related to Barone, D'Acunto, and Narciso (2015), who study the effect of pro-Berlusconi bias in Mediaset news on local elections in one Italian region.

Second, our work relates to previous contributions on the effect of television on cognitive abilities (Gentzkow and Shapiro 2008) and civic attitudes (Putnam 2000, Olken 2009). In particular, our results represent an important qualification with respect to these studies in that they isolate the effect of entertainment content on cognitive and noncognitive outcomes, and explore the broader implications of this effect for political preferences.⁴

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, Bean, and McAllister 2003; Mudde 2007; Oesch 2008; Dippel, Gold, and Heblich 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 I provides background information on the evolution of Italy's political system and broadcast television industry during the period of interest. Section II describes the data used in the empirical analysis. Section III discusses the identification strategy. Section IV presents the main findings, while Section V provides additional evidence on mechanisms. Section VI concludes.

I. Background

A. *The Rise of Commercial TV in Italy*

Italian law banned private TV broadcasting until 1976, when private channels were finally allowed to broadcast, although only at the local level.⁵ 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 others, *Prima Rete*, *Italia 1*, and *Rete 4*, were controlled respectively by the Rizzoli, Rusconi, and Mondadori publishing groups. Despite a 1981 Constitutional Court decision that 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 Fininvest holding company, which later became Mediaset. In

⁴Our results are also in line with extensive evidence from medicine, psychology, and education on the impact of TV on children's cognitive and social skills, which emphasizes the difference between exposure to age-appropriate educational content and entertainment programs, particularly fast-paced and violent content (Anderson et al. 2001; Christakis et al. 2004, 2013; Hancox, Milne, and Poulton 2005; Ennemoser and Schneider 2007; Landhuis et al. 2007; Zimmerman and Christakis 2007; Kirkorian, Wartella, and Anderson 2008).

⁵This 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).

October 1984, district judges from Turin, Rome, and Pescara ordered the confiscation of Mediaset transmitters for operating in violation of the Constitutional Court's ruling. However, 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 private broadcasting at the national level.

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 Mediaset operated 1,710 transmitters and could reach about one-half of the population with a high-quality signal; two years later, the number of transmitters had reached 3,800 and Mediaset signal reached about 87 percent of the population (Constitutional Court 1988). By the end of 1990, Mediaset coverage had reached 98 percent, 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 limited the possibility of assigning new broadcasting licenses to other operators.⁶

Crucially, the Mediaset programming schedule differed dramatically from that of RAI. Mediaset aired more hours per day, focusing particularly on light entertainment; in contrast, it devoted very little time to educational content, and did not introduce newscasts until 1991. To document these differences, we digitized the daily programming schedules of Mediaset and RAI from the online historical archive of the Italian newspaper *Corriere della Sera*. We selected the first week of each month during the period 1983–1987 (when Mediaset had only partial coverage of the Italian territory) and we classified programs into four categories: entertainment, movies, news and information, and educational content. These four categories account for 98.3 percent of the airtime during the period of interest.

In panel A of Figure 1, we first look at differences in total airtime per day. From the very beginning, Mediaset channels broadcast from the early morning through late night, about 16 hours per day. This was a major innovation over RAI channels, which traditionally operated only during the central hours of the day, 11 hours per day in 1983, though there is some convergence over time. We then examine differences in the type of programs featured on Mediaset and RAI; panel B of Figure 1 compares the share of airtime devoted to each category. Mediaset was almost entirely devoted to light entertainment and movies (63 percent and 27 percent of total airtime, respectively), whereas news and educational content was almost absent. By contrast, RAI devoted 34 percent of its airtime to news and an additional 22 percent to educational content. In terms of time, each Mediaset channel featured on average about 10 hours per day of entertainment and 4 hours of movies, compared to only 3.5 and 1.5 hours

⁶In 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 very incomplete coverage of the national territory, and a combined share of total audience below 5 percent (Constitutional Court 1988). The number of channels increased considerably only after the transition to digital TV in 2008 (Barone, D'Acunto, and Narciso 2015; Mastroiocco and Minale 2018).

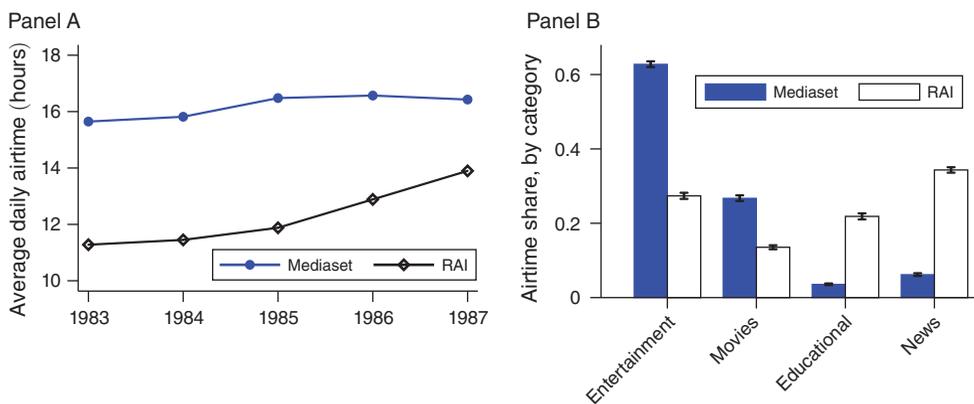


FIGURE 1. TOTAL AIRTIME PER DAY AND AIRTIME SHARES FOR DIFFERENT CATEGORIES OF TV SHOWS, MEDIASET VERSUS RAI, 1983–1987

Notes: Panel A plots the average total airtime per day on Mediaset and RAI channels over the period 1983–1987. Panel B shows the average share of airtime (and associated 90 percent confidence intervals) devoted to different categories of TV programs on the two networks.

on RAI. Therefore, Mediaset dramatically expanded the offer of entertainment TV shows and movies, relative to information and educational content.

As for the quality of programs, objective measures are available only for movies. Specifically, we collected professional critic reviews on all 2,857 movies broadcast on Mediaset and RAI during our sample period (i.e., the first week of each month between 1983 and 1987). Some movies were screened multiple times during this period (up to 4), for a total of 3,327 observations.⁷ The online databases Mymovies.it and Filmtv.it provide average critic ratings, on a scale from 2 to 10, for 2,743 and 2,549 movies, respectively. For a subset of 747 primarily US movies, we were also able to identify which movies were rated suitable for general audiences, including children, by the Motion Picture Association of America (MPAA).

Figure 2 compares critic reviews and MPAA parental guidelines between movies broadcast on Mediaset and RAI, respectively. Mediaset movies receive on average worse critic reviews on both websites, the difference amounting to about one-third of a standard deviation in critic ratings (panel A). They are also less suitable for general audiences, although the difference across all movies remains small. However, this difference increases and becomes statistically significant when focusing on movies broadcast in the afternoon and early evening, when children are most likely to be watching TV (panel B).

Taken together, the evidence in Figures 1 and 2 confirms that the advent of Mediaset vastly expanded the amount of content available to TV viewers, with particular regard to light entertainment programs. Additional evidence from movie ratings suggests that, compared to RAI, content on Mediaset was generally of lower quality and less suitable for younger viewers.⁸

⁷For the purposes of evaluating the average quality of programming schedules, we record multiple screenings of the same movie as separate observations.

⁸All differences between Mediaset and RAI movies shown in Figures 1 and 2 are robust to controlling for year, calendar month, and day of the week fixed effect, and to clustering standard errors by date; see online Appendix Table A1.

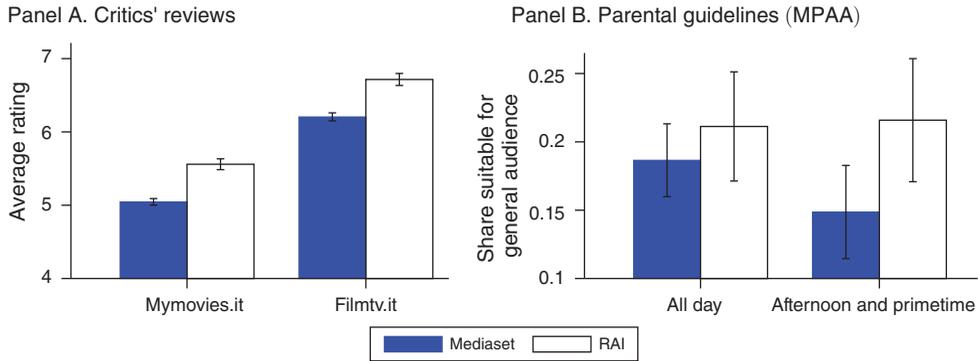


FIGURE 2. CRITICS' REVIEWS AND PARENTAL GUIDELINES FOR MOVIES BROADCAST ON MEDIASET AND RAI, 1983–1987

Notes: Panel A plots the average critics' ratings received by movies broadcast on Mediaset and RAI over the period 1983–1987. Panel B shows the share of movies suitable for general audiences, including children, according to the Motion Picture Association of America (MPAA). Ninety-percent confidence intervals are also shown in the graphs.

B. *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 1992–1993, when an unprecedented series of corruption scandals led to the dismantlement of the conservative coalition that had governed Italy for over a decade, and to the transition to the 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 centre-right parties.⁹

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).

⁹For simplicity we refer to the PD and *Forza Italia* throughout, although the names of both parties changed repeatedly over the sample period.

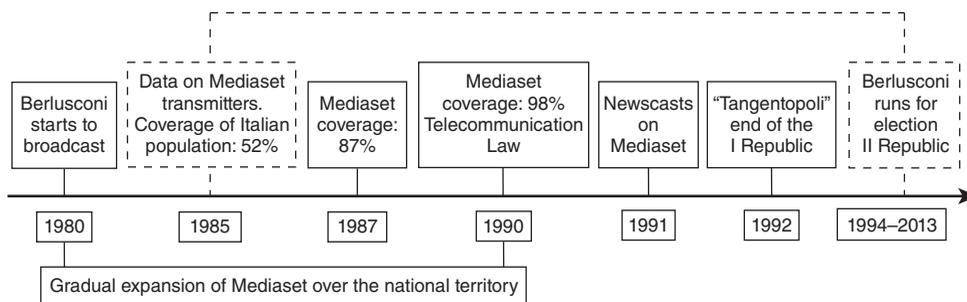


FIGURE 3. TIMELINE OF EVENTS, 1980–1994

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 only 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 populist party that captured 25.5 percent of the votes.¹⁰

Figure 3 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.

II. Data

We obtained from Mediaset 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.¹¹ 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. However, patterns of decay are much more complex due to diffraction caused by mountains and other obstacles. We compute the actual signal loss employing a professional engineer-developed software based on the Longley-Rice Irregular Terrain Model (ITM). The ITM was originally developed by the United States government for

¹⁰Online Appendix Figure A1 shows the vote share obtained by the main parties and coalitions in the Second Republic.

¹¹A sample technical report sheet is reported in online Appendix Figure A2.

frequency-planning purposes and allows to accurately predict signal strength across narrow geographical cells (Phillips, Sicker, and Grunwald 2011).¹²

Following Olken (2009), we compute the signal loss between each Mediaset transmitter and each of Italy's 8,100 municipalities (*comune*) using the ITM algorithm.¹³ For each municipality-transmitter pair, we subtract the signal loss from the transmission power to obtain the predicted signal strength at the receiving location, in decibels (dB). Finally, we compute the predicted signal strength in each municipality as the maximum signal power across all transmitters.

In principle, reception is of high quality for positive values of signal strength (i.e., when signal loss is lower than transmission power) and is imperfect or nil for negative values of signal strength. Olken (2009) provides evidence in this respect for the case of Indonesia using survey data on TV viewership; specifically, he documents that 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 approaches full coverage when signal strength turns positive.

Panel A of Figure 4 reports the distribution of Mediaset signal strength across Italian municipalities in 1985. Signal strength is positive in 29 percent of Italian municipalities, accounting for one-half of the population: not surprisingly, Mediaset covered disproportionately large cities. According to the evidence in Olken (2009), this should be the population receiving Mediaset with good signal quality in 1985.

However, the exact relationship between signal strength and the quality of reception may vary across space and time. For instance, Bursztyrn and Cantoni (2016) show that, in 1989, viewers in East Germany attained fairly good reception of Western TV channels even for negative levels 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, Petrova, and Zhuravskaya (2011) and exploit continuous variation in signal strength throughout most of the analysis.¹⁴

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 percent 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.

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 is important for our identification strategy. The distribution of signal strength in the free space is shown in panel B of Figure 4. As for the actual signal strength, we obtain the standardized signal strength in the free space, *SignalFree*, by dividing the original variable by its standard deviation.

¹²The version used in this paper is described in Hufford (2002), and has been previously used by Olken (2009); Enikolopov, Petrova, and Zhuravskaya (2011); Farré and Fasani (2013); Yanagizawa-Drott (2014); and DellaVigna et al. (2014). We thank Benjamin Olken for kindly sharing the ITM code.

¹³Municipalities 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); online Appendix Table A2 reports summary statistics for our main variables.

¹⁴The only exception is a robustness analysis, presented in Section IVB, in which we match neighboring municipalities with positive and negative signal strength, respectively.

Panel A. Predicted signal strength

Panel B. Signal strength in the free space

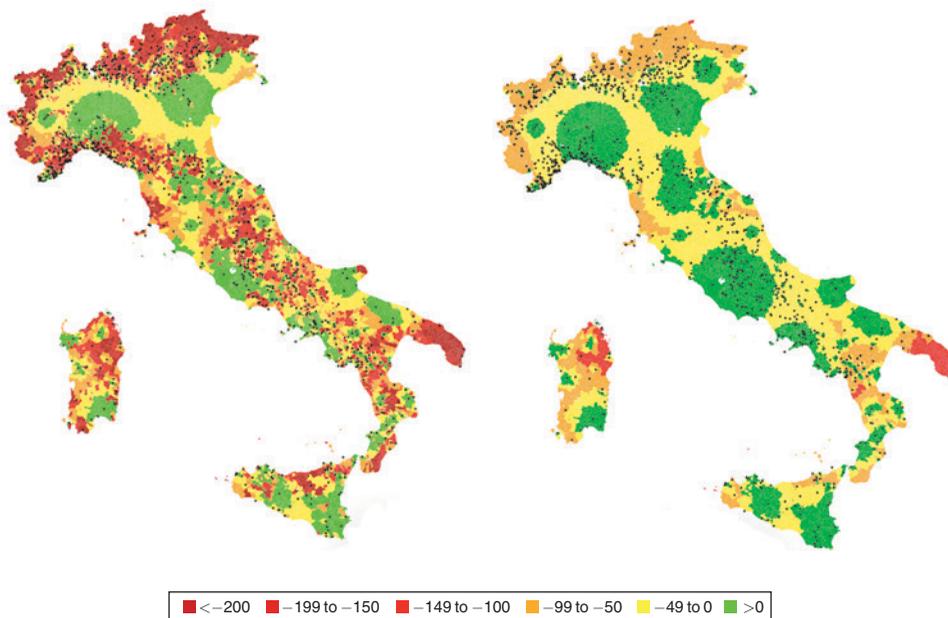


FIGURE 4. MEDIASET SIGNAL STRENGTH AND HYPOTHETICAL SIGNAL STRENGTH IN THE FREE SPACE IN 1985

Notes: Panel A shows Mediaset actual signal strength, in decibels (dB), across municipalities in 1985. Panel B shows the hypothetical signal strength in the absence of geomorphological obstacles. The black dots represent the location of transmitters.

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 percent 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.¹⁵

III. 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 I 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

¹⁵For 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.

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.¹⁶

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 2,246 square kilometers). Therefore, our estimates exploit only residual variation across municipalities within narrow geographical areas characterized by similar economic and political conditions.¹⁷

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:

$$(1) \quad \text{Vote}_m = \beta \text{Signal}_m + \gamma \text{SignalFree}_m + \delta' X_m + ED_{i(m)} + LLM_{j(m)} + \varepsilon_m,$$

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 socioeconomic 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 district to allow for arbitrary correlation in error terms across municipalities facing the same choice of candidates; however, we discuss the robustness of our results to alternative assumptions about standard errors. Finally, we weight observations by population in 1981, in order to make the estimates representative at the national level.¹⁸

¹⁶The 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.

¹⁷LLMs are defined by ISTAT on the basis of workers' commuting patterns (Istituto Nazionale di Statistica 2011). Online Appendix Figure A3 shows the boundaries of EDs, LLMs, and provinces, respectively.

¹⁸The results on the unweighted observations are generally stronger.

The main coefficient of interest, β , captures the reduced-form effect of (potential) exposure to Mediaset, as opposed to the effect of actual viewership.¹⁹ 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 socioeconomic conditions that could potentially influence voting behavior.

Table 1 shows the correlation between *Signal* and the vote share of the main parties and coalitions in the national elections in 1976, 1979, 1983, 1987, and 1992. We focus on the electoral results of the Italian Communist Party, the centre-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 significantly different from zero (column 2); this is even more the case when controlling for fixed effects and other municipality characteristics (column 4). In addition, in the last three rows we examine the relationship between *Signal* and changes in parties' vote share between 1979 and 1983, i.e., the elections prior to the diffusion of Mediaset. Again, regardless of the specification, we find no evidence of any significant relationship. These results indicate that Mediaset coverage prior to 1985 is not systematically correlated with preexisting political preferences, or changes in such 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 4). Indeed, the joint variation in *SignalFree*, topography, and fixed effects explains between 50 percent and 90 percent of the overall variation for most socioeconomic 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. Finally, as for political variables, we also verify that early access to Mediaset is not related to changes in basic demographic and economic conditions in the pre-Mediaset years. In this respect, regardless of the specification, we find no significant correlation between *Signal* and changes in population, number of firms, and number of firms' employees between 1971 and 1981.

IV. 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 in and after 1994 across municipalities. We then investigate the mechanisms driving this relationship exploiting additional information from several surveys available at the individual level.

¹⁹Olken (2009) and Enikolopov, Petrova, and Zhuravskaya (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.

TABLE 1—EXPOSURE TO MEDIASET AND VOTING FOR THE MAIN ITALIAN PARTIES, 1976–1992 (BALANCE TESTS)

Party, election	Mean (1)	Univariate OLS		FE and controls	
		Coefficient (2)	R^2 (3)	Coefficient (4)	R^2 (5)
Italian Communist Party, 1976	33.332 (0.137)	1.773 (1.157)	0.005	-0.522 (0.574)	0.806
Pentapartito, 1976	54.95 (0.131)	-0.487 (1.068)	0.005	0.229 (0.508)	0.806
Other parties, 1976	9.027 (0.082)	-1.013 (1.047)	0.007	0.263 (0.248)	0.915
Italian Communist Party, 1979	28.966 (0.138)	1.644 (1.165)	0.002	-0.646 (0.535)	0.830
Pentapartito, 1979	55.153 (0.128)	-0.770 (1.105)	0.001	0.386 (0.476)	0.813
Other parties, 1979	11.672 (0.081)	-0.487 (1.006)	0.009	0.223 (0.236)	0.912
Italian Communist Party, 1983	28.003 (0.138)	1.502 (1.212)	0.002	-0.695 (0.559)	0.829
Pentapartito, 1983	53.607 (0.126)	-0.872 (1.166)	0.005	0.388 (0.483)	0.808
Other parties, 1983	12.522 (0.082)	-0.285 (0.984)	0.020	0.288 (0.272)	0.902
Italian Communist Party, 1987	25.223 (0.133)	0.847 (1.140)	0.002	-0.715 (0.510)	0.838
Pentapartito, 1987	54.73 (0.128)	-1.187 (1.225)	0.001	0.417 (0.458)	0.829
Other parties, 1987	15.056 (0.088)	0.681 (0.999)	0.007	0.258 (0.262)	0.913
Italian Communist Party, 1992	15.171 (0.105)	0.410 (0.859)	0.000	-0.078 (0.365)	0.862
Pentapartito, 1992	50.586 (0.145)	-3.031 (1.562)	0.007	-0.210 (0.409)	0.891
Other parties, 1992	28.773 (0.136)	2.997 (1.454)	0.007	0.283 (0.252)	0.942
Italian Communist Party, change 1979–1983	-0.963 (0.026)	-0.129 (0.140)	0.000	-0.033 (0.113)	0.499
Pentapartito, change 1979–1983	-1.54 (0.038)	-0.102 (0.224)	0.018	-0.004 (0.187)	0.566
Other parties, change 1979–1983	0.851 (0.029)	0.199 (0.167)	0.021	0.059 (0.147)	0.703

Notes: The table explores the relationship between early access to Mediaset and the average vote shares of the main parties and coalitions in each national election between 1976 and 1992, as well as the change in vote shares between the 1979 and the 1983 elections, the last ones prior to the diffusion of Mediaset (last three rows). Column 1 reports the mean of each variable; columns 2 and 3 report 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*); columns 4 and 5 add 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.

A. 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

TABLE 2—EXPOSURE TO MEDIASET AND MUNICIPALITY CHARACTERISTICS (BALANCE TESTS)

	Mean (1)	Univariate OLS		FE and controls	
		Coefficient (2)	R^2 (3)	Coefficient (4)	R^2 (5)
Population, thousands (1981)	6.936 (0.579)	68.164 (63.342)	0.249	8.983 (7.446)	0.999
Population, thousands (change 1981–2001)	−0.713 (5.258)	−0.963 (6.111)	0.020	−0.159 (0.653)	0.994
log income per capita, thousand euros (1985)	1.738 (0.024)	0.110 (0.035)	0.039	0.025 (0.008)	0.913
Higher education, percentage (1981)	13.183 (0.708)	1.411 (0.690)	0.144	0.723 (0.234)	0.833
Voluntary associations × 100 inhabitants (1981)	0.103 (0.004)	−0.001 (0.007)	0.032	0.003 (0.004)	0.497
Activity rate, percentage (1991)	42.258 (0.220)	2.535 (0.278)	0.047	0.137 (0.151)	0.858
Employment rate, percentage (1991)	35.074 (0.419)	3.155 (0.564)	0.021	0.135 (0.160)	0.953
Unemployment rate, percentage (1991)	6.936 (0.202)	−0.855 (0.357)	0.005	−0.121 (0.173)	0.791
Firms per 1,000 inhabitants (1981)	50.927 (1.125)	0.765 (1.256)	0.043	−0.046 (0.653)	0.724
Firms per 1,000 inhabitants (change 1971–1981)	10.182 (0.553)	0.441 (0.838)	0.023	0.062 (0.530)	0.570
Firms' employees, thousands (1981)	78.1 (34.715)	27.163 (25.878)	0.195	2.594 (2.169)	0.999
Firms' employees, thousands (change 1971–1981)	2.717 (4.019)	−1.434 (2.883)	0.096	0.111 (0.095)	0.998

Notes: The table reports the mean of municipality characteristics (column 1) and their correlation with early exposure to Mediaset (columns 2 and 3). Specifically, columns 2 and 3 report 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*); in columns 4 and 5 we add 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.

significant coefficient: a 1 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 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). After controlling for these sets of fixed effects, the coefficient remains virtually unaffected when adding income per capita (in log), schooling levels, and number of eligible voters to the specification (column 5). It is also unaffected when estimating the regression on unweighted observations (column 6) and when capping the top and bottom 2.5 percent of values of the variable *Signal* rather than trimming the sample (column 7). In all regressions in Table 3, standard errors are clustered by electoral district. However, the coefficient on *Signal* remains equally significant when (i) clustering standard errors by local labor market, (ii) using two-way

TABLE 3—EXPOSURE TO MEDIASET AND VOTING FOR *FORZA ITALIA* IN 1994

	Baseline regression					No weights	Winsor.
	(1)	(2)	(3)	(4)	(5)		
<i>Signal</i>	2.853 (0.860)	3.215 (0.705)	3.666 (0.759)	0.901 (0.232)	0.851 (0.234)	0.976 (0.193)	0.729 (0.218)
<i>SignalFree</i>		-0.289 (0.719)	0.014 (0.473)	-0.668 (0.260)	-0.642 (0.254)	-0.396 (0.202)	-0.433 (0.234)
Area (100s km ²)			-0.966 (0.695)	0.854 (0.380)	0.875 (0.404)	0.540 (0.335)	0.780 (0.408)
Area ²			0.030 (0.054)	-0.079 (0.093)	-0.069 (0.093)	-0.033 (0.084)	-0.043 (0.095)
Altitude (thousands meters)			-6.244 (4.483)	-12.716 (1.578)	-10.963 (1.625)	-9.675 (1.373)	-9.771 (1.619)
Altitude ²			-0.092 (3.953)	7.125 (1.269)	6.367 (1.290)	5.259 (1.218)	5.239 (1.256)
Ruggedness			0.007 (0.004)	-0.002 (0.001)	-0.002 (0.001)	-0.002 (0.001)	-0.003 (0.001)
Electorate (thousands)					-0.004 (0.004)	0.003 (0.005)	-0.005 (0.004)
log income per capita (thousands euros)					5.109 (0.763)	4.760 (0.614)	5.017 (0.743)
Education (% high-school + college)					-0.089 (0.030)	-0.108 (0.032)	-0.093 (0.029)
Observations	7,600	7,600	7,590	7,590	7,519	7,519	7,898
Electoral district fixed effects	No	No	No	Yes	Yes	Yes	Yes
Local labor market fixed effects	No	No	No	Yes	Yes	Yes	Yes
R ²	0.051	0.051	0.109	0.919	0.921	0.765	0.920

Notes: The table reports OLS estimates of the effect of early exposure to Mediaset on the vote share of *Forza Italia* in the 1994 elections. The main explanatory variable, *Signal*, is Mediaset signal strength in 1985, *SignalFree* is signal strength in the free space. *Area*, *Altitude*, *Area²*, and *Altitude²* 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 through 7 also include ED and LLM fixed effects. All regressions except column 6 are weighted by municipality population in 1981. In column 7 we winsorize *Signal* rather than trimming the sample like in the other specifications. Heteroskedasticity-robust standard errors clustered at the electoral district level are reported in parentheses.

clustering by both electoral district and local labor market, and (iii) allowing for spatial correlation in error terms applying Conley's (1999) approach and using different reference distances (see online Appendix Table A3).²⁰

The baseline estimate in column 5 of Table 3 captures the effect of a few additional years of exposure, because 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).²¹ 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 nontrivial assumption, the effect-per-year-of-exposure

²⁰We implement Conley's (1999) approach in Stata using the *acreg* .ado file coded by Colella et al. (2018), which allows for the use of population weights.

²¹The predicted coverage of Mediaset in each year is shown in online Appendix Figure A4.

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 (5.5 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 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 for 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.

B. Robustness

To exclude that the gap in voting for Berlusconi reflects other (omitted) differences between exposed and non-exposed municipalities, we perform the following robustness checks. First, we restrict the sample to progressively smaller municipalities, up to less than 10,000 inhabitants. The political and economic return to covering such municipalities would be negligible, so they were likely exposed or non-exposed “by chance” as local TV stations that were later incorporated into Mediaset expanded to cover larger towns. The results are presented in Table 4. Column 1 reproduces the baseline estimate on the entire sample (as in column 5 of Table 3); column 2 drops all province capitals (104 cities); and columns 3–5 progressively exclude municipalities with more than 100,000, 50,000, and 10,000 inhabitants, respectively. The coefficient is virtually unaffected, even when restricting to very small towns with less than 10,000 inhabitants; see also panel A of Figure 5.

Second, we match pairs of neighboring 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

$$(2) \quad |SignalFree_i - SignalFree_j| < \Delta \quad \text{and} \quad Signal_j < q \leq 0 \leq Signal_i,$$

for different values of Δ and q .²² To the extent that negative values of *Signal* entail imperfect or nil reception, as shown by Olken (2009), such comparison approximates

²²Since *Signal* and *SignalFree* are measured in terms of standard deviations of the original signal strength and signal strength in the free space, respectively, q and Δ are defined using the same metrics.

TABLE 4—EXPOSURE TO MEDIASET AND VOTING FOR *FORZA ITALIA* IN 1994, ROBUSTNESS

	Baseline estimate (1)	Only smaller municipalities			Matching neighbors			
		No prov. cap. (2)	Pop. ≤ 100K (3)	Pop. ≤ 50K (4)	Pop. ≤ 10K (5)	$\Delta \leq 1$ (6)	$\Delta \leq 0.5$ (7)	$\Delta \leq 0.25$ (8)
<i>Signal</i>	0.851 (0.234)	0.817 (0.226)	0.763 (0.231)	0.817 (0.232)	0.880 (0.219)	0.584 (0.161)	0.750 (0.188)	0.834 (0.229)
Observations	7,519	7,415	7,474	7,397	6,582	4,548	3,229	2,071
R^2	0.921	0.894	0.895	0.884	0.829	0.854	0.840	0.818

Notes: This table compares the estimated effect of early exposure to Mediaset on the vote share of *Forza Italia* in the 1994 elections within different subsamples. Column 1 reproduces the baseline regression in column 5 of Table 3. Columns 2 to 5 restrict the sample to progressively smaller municipalities, indicated on top of each column. Columns 6 to 8 include in the sample only pairs of neighboring municipalities such that $|SignalFree_i - SignalFree_j| < \Delta$ and $Signal_j < 0 \leq Signal_i$, for different values of Δ , indicated on top of each column. All regressions control on the right-hand side for all municipality-level variables reported in column 5 of Table 3, namely *SignalFree*, *Area*, *Altitude*, *Area*, *Altitude*², *Ruggedness*, *Electorate*, *log income per capita*, *Education*. Regressions in columns 1 to 5 control in addition for ED and LLM fixed effects; heteroskedasticity-robust standard errors clustered at the electoral district level are reported in parentheses. Regressions in columns 6 to 8 control instead for neighbor-pair fixed effects (each municipality can appear in more than one pair); heteroskedasticity-robust standard errors are clustered at the municipality level.

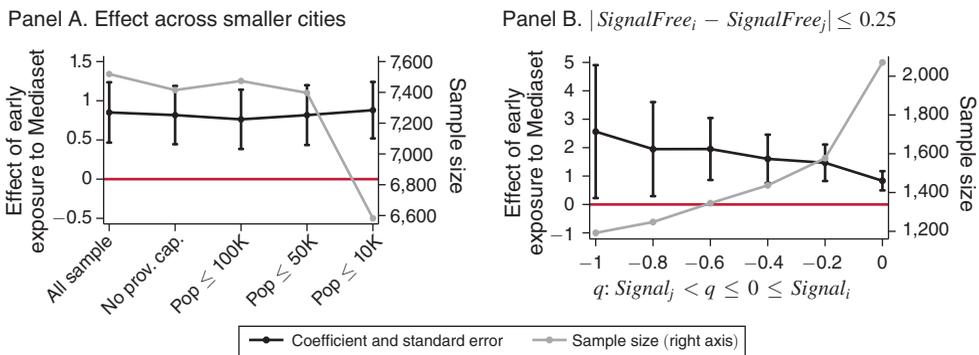


FIGURE 5. EXPOSURE TO MEDIASET AND VOTING FOR *FORZA ITALIA* IN 1994, ROBUSTNESS

Notes: This figure compares the estimated effect of early exposure to Mediaset on the vote share of *Forza Italia* in the 1994 elections within different subsamples. Panel A shows the coefficient of *Signal* (and associated confidence intervals) from the baseline regression in column 5 of Table 3, when restricting the sample to progressively smaller municipalities, indicated on the horizontal axis. Panel B shows the coefficient of *Signal* (and associated confidence intervals) from the regression in column 8 of Table 4 (i.e., including in the sample only pairs of neighboring municipalities such that $|SignalFree_i - SignalFree_j| \leq 0.25$ and $Signal_j < q \leq 0 \leq Signal_i$) for different values of q , indicated on the horizontal axis. Both graphs also show (on the right vertical axis) the sample size in each regression.

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 4 show the estimated difference in voting for $q = 0$ and Δ lower than 1, 0.5, and 0.25, respectively, controlling for all municipality-level variables as well as for neighbor-pair fixed effects (each municipality can appear in more than one pair). As we reduce the bandwidth, exposed and non-exposed municipalities are indistinguishable in terms of all (observable) characteristics and previous voting behavior.²³ Even within this

²³The balance tests are reported in online Appendix Tables A4 and A5.

smaller subsample, the coefficient of *Signal* remains positive and statistically significant; indeed, it is virtually identical to the baseline ordinary least squares (OLS) estimate on the total sample.

As an additional robustness check, we further restrict the subsample to pairs of neighboring municipalities with similar *SignalFree* and in which one municipality has positive signal and the other one has signal below some level $q < 0$ (see the second condition in equation (2)). As we decrease q , we are comparing exposed municipalities with municipalities experiencing progressively worse reception. Panel B in Figure 5 shows that the gap in voting for Berlusconi remains statistically significant (in spite of the large drop in sample size) and it increases in magnitude as we decrease q .²⁴ To the extent that the probability of watching Mediaset decreases with signal loss, this evidence is also consistent with the observed differences in voting across matched municipalities being driven by exposure to Mediaset.

Overall, the estimates reported in Table 4 and Figure 5 are virtually identical to the baseline OLS estimates in Table 3. For this reason, in the rest of the paper we only report OLS estimates across all municipalities.

C. Other Parties and Elections

In Table 5 we report the results for all elections and parties. Each entry in the table reports the OLS 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 centre-right coalition; centrist parties; the Democratic Party; other parties in the centre-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. 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.²⁵

Interestingly, *Forza Italia* and M5S have very different ideological stances. Although the M5S can hardly be located on the traditional right-left axis, it is generally perceived as leaning toward the left of the political spectrum; by contrast, Berlusconi always catered to centre-right voters.²⁶ At the same time, both parties are characterized by a distinctively populist rhetoric; indeed, they are often cited as leading examples of populist European parties (see, e.g., van Kessel 2015, Jones and Pasquino 2015, Verbeek and Zaslove 2016). A potential reconciliation of the effect on *Forza Italia* and M5S is, thus, that higher support for *Forza Italia* reflects

²⁴The graph considers the most restrictive matching for $\Delta \leq 0.25$. The evidence is similar when considering the larger bandwidths, $\Delta \leq 1$ and $\Delta \leq 0.50$: see online Appendix Figure A5.

²⁵The effect on M5S is unaffected when controlling for access to broadband internet, which previous research by Campante, Durante, and Sobbrío (2013) shows was positively related with support for the M5S: see Table A6.

²⁶Online Appendix Figure A6 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 percent for the other two parties), consistent with the party's ideological ambiguity.

TABLE 5—EXPOSURE TO MEDIASET AND VOTING FOR MAIN POLITICAL PARTIES, 1994–2013

Election year:	1994	1996	2001	2006	2008	2013
<i>Party</i>						
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)
Others centre-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 (0.264)	-0.239 (0.158)	-0.186 (0.197)	-0.002 (0.147)	-0.237 (0.168)	0.079 (0.136)
Democrat 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)
Others centre-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	-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)

Notes: 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* from the baseline regression in column 5 of Table 3. Heteroskedasticity-robust standard errors clustered at the electoral district level in parentheses.

widespread populist attitudes (as opposed to a different ideological stance) among viewers exposed earlier to entertainment TV.

D. Entertainment TV, Populism, and Right-Wing Values

In Table 6 we explore the effect of exposure to Mediaset on voters' political preferences using individual-level 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) political preferences, media consumption, and a range of individual characteristics such as age, gender, education, and employment.²⁷ 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 political preferences for different groups of individuals. We include in the sample all individuals interviewed in every wave conducted between 1994 and 2013. All specifications include on the right-hand side the variables *Signal*, *SignalFree*, all municipality-level control variables in column 5 of Table 3, gender and age of the

²⁷The 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—EXPOSURE TO MEDIASET AND POLITICAL ATTITUDES

	Populist attitudes			Right-wing values			
	Voting for <i>Forza Italia</i> (1)	Politics is too complicated (2)	Politicians only want your vote (3)	Immigrants steal jobs (4)	Abortion should be made more difficult (5)	Same-sex couples should have same rights (6)	Common-law marriages should be recognized by law (7)
<i>Signal</i>	0.028 (0.012)	0.023 (0.015)	0.063 (0.023)	0.043 (0.019)	0.016 (0.018)	0.020 (0.021)	−0.019 (0.022)
Sample average	[0.31]	[0.80]	[0.70]	[0.46]	[0.43]	[0.59]	[0.77]
Observations	10,565	6,388	6,551	7,903	8,756	4,784	4,213
R^2	0.094	0.049	0.159	0.073	0.110	0.110	0.101

Notes: The table illustrates the effect of early exposure to Mediaset on individual political preferences, using survey data from various waves of the Italian National Election Study (ITANES) conducted between 1994 and 2013. The dependent variable in column 1 is a dummy equal to 1 for having voted for *Forza Italia* in the previous election; in columns 2 to 7 it is a dummy equal to 1 for individuals agreeing with the statements indicated on top of each column. The sample average of all dependent variables is reported in square brackets. The main explanatory variable, *Signal*, is Mediaset signal strength in 1985. All regressions also include on the right-hand side the following municipal controls: *SignalFree*, *Area*, *Altitude*, *Area*², *Altitude*², *log income per capita*, *Education* and *Population* 1981; plus province and election year fixed effects, and *Age* and *Gender* of the respondent. Heteroskedasticity-robust standard errors clustered at the municipal level in parentheses.

respondent, and province and year fixed effects. Standard errors are clustered at the municipality level in all regressions.

The dependent variable in column 1 is a dummy for having voted *Forza Italia* in the previous election. 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*. In particular, 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. This estimate is also very stable when restricting the sample to smaller municipalities, see panel A in Figure 7.

In the remaining columns of Table 6 we further characterize the effect of early exposure to entertainment TV on political preferences exploiting additional information included in ITANES. Early Mediaset viewers sympathize with typical populist messages, such as “Politics is too complicated,” and “Politicians only want your vote” (columns 2 and 3, respectively). They are also more likely to believe that “Immigrants steal jobs from natives” (column 4). While the latter political stance is common to both populist and right-wing parties, early Mediaset viewers are *not* more likely to support traditional right-wing values: opposition to abortion, same-sex marriages, and common law marriages (columns 5–7).

Overall, the evidence in Table 6 suggests that entertainment TV made viewers more receptive to populist propaganda, rather than more supportive of Berlusconi or, more generally, the conservative camp.

V. Mechanisms

We next investigate which categories of viewers were more deeply affected, and through which mechanisms.

A. Effects by Age

Intuitively, early exposure to Mediaset should have a greater impact on individuals spending more time watching TV. The survey on leisure time use conducted by ISTAT in 1983 contains detailed information on media consumption by a representative sample of the Italian population (ISTAT 1986). The age profile of TV viewers is U-shaped, with children, youth, and retirees spending more hours watching TV than adults between 25 and 55; see panel A of Figure 6.²⁸

We then classify individuals in the ITANES survey by their age in 1985, using the same age categories as the ISTAT time use survey, and estimate the effect of exposure to Mediaset separately for each age group. The specification is identical to that used in Table 6, i.e., controlling for *SignalFree*, all municipality-level variables included in column 5 of Table 3, province and election fixed effects, and age and gender of the respondent.

Panel B of Figure 6 shows that 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, TV consumption and Mediaset effects exhibit the same age profile in Figure 6.

The results by age group also 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 1994.²⁹

B. Discussion of Potential Mechanisms

We explore three possible mechanisms through which entertainment TV may have influenced the political preferences of early Mediaset viewers and their attitudes toward Berlusconi's party or toward populist parties more generally.

The first possibility is that exposure to entertainment TV may have negatively affected children's cognitive abilities, making them more vulnerable to populist rhetoric as adults. This hypothesis is consistent with evidence that less educated voters are more likely to support populist parties (Arzheimer 2009). A large literature in medicine, psychology, education, and, more recently, in economics has investigated the effect of television on children's cognitive development. While a

²⁸The results of the survey are summarized in online Appendix Table A7. In the 1980s the retirement age in Italy was between 55 and 60 for most categories of workers.

²⁹Online Appendix 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.

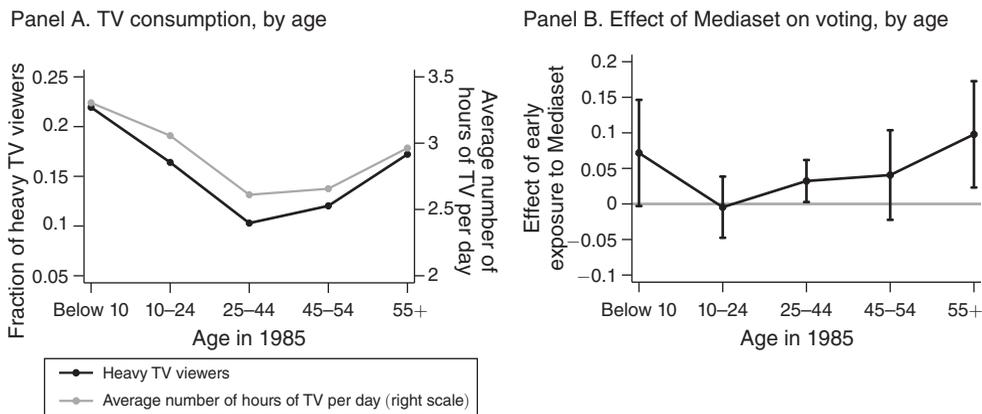


FIGURE 6. TV CONSUMPTION AND EFFECT OF EARLY EXPOSURE TO MEDIASET, BY COHORTS

Notes: Panel A depicts the share of heavy TV viewers (i.e., watching 5 hours or more of TV per day) and the average number of hours of TV per day for the same age groups. Panel B shows OLS estimates (and associated confidence intervals) of the effect of early exposure to Mediaset on the probability of voting for *Forza Italia* by age group, using the same classification as in online Appendix Table A7. The OLS specification is the same as in column 1 of Table 6.

number of studies indicate that exposure to TV at young ages is associated with attention problems, delayed language development, and lower educational attainment (Christakis et al. 2004, Landhuis et al. 2007, Chonchaiya and Pruksananonda 2008, Hancox, Milne, and Poulton 2005), evidence in this regard is not uncontroversial. For example, a prominent study by Gentzkow and Shapiro (2008) finds that access to television in the United States in the 1950s had a positive although moderate effect on children's standardized test scores. Importantly, the effect of TV seems to vary considerably depending on the type of content. While exposure to age-appropriate educational programs can be beneficial for cognitive development and school attainment, entertainment programs, particularly fast-paced and violent ones, tend to have the opposite effect (Anderson et al. 2001, Ennemoser and Schneider 2007, Zimmerman and Christakis 2007, Kirkorian, Wartella, and Anderson 2008, Christakis et al. 2013, Hernæs, Markussen, and Røed forthcoming, Kearney and Levine 2015a).³⁰ Consumption of entertainment TV would be detrimental because it crowds out other more cognitively challenging activities such as reading, studying, or role-playing, as well as media consumption of educational material (Williams 1985, 1986; Shin 2004; Hernæs, Markussen, and Røed forthcoming; Khan et al. 2017).

The second hypothesis is that consumption of entertainment TV at early ages 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 popularized by Putnam (2000) in his seminal work on the decline of

³⁰Comprehensive surveys of the literature on the risks associated with excessive consumption are available from Schmidt and Vandewater (2008) and Anderson and Pempek (2005). Similar evidence of the detrimental effects of early exposure to TV has motivated the American Academy of Pediatrics (2001, p.424) to recommend parents to "limit children's total media time (with entertainment media) to no more than 1 to 2 hours of quality programming per day."

civic engagement in the United States, and is consistent with evidence from other disciplines of the negative impact of exposure to television on social skills (Mistry et al. 2007, Christakis et al. 2013) and social capital (Olken 2009). Putnam also draws an important distinction between informative and non-informative content: while news and educational programs are likely to foster viewers' civic engagement and political awareness, entertainment TV would have the opposite effect.³¹ Less engaged voters, in turn, are more likely to be attracted to populist parties with personalistic leadership than to parties relying on the active participation of their members (Mazzoleni, Stewart, and Horsfield 2003). In light of this argument, and of the marked differences in TV content between Mediaset and public channels documented in Section IA, early exposure to Mediaset should have favored populist parties such as *Forza Italia* and the M5S over more traditional mass parties like the PD.

Finally, early Mediaset viewers may have simply been more likely to know who Berlusconi was when he first ran for office, or they may have been more sympathetic toward him out of gratitude for the unprecedented entertainment opportunities offered by his TV channels.

C. *The Effect of Entertainment TV on Cognitive Skills and Civic Attitudes*

We investigate empirically the mechanisms described above using psychometric tests from military service records on the universe of Italian conscripts; adult literacy and numeracy tests from the OECD Programme for the International Assessment of Adult Competencies (PIAAC); and political and civic attitudes from ITANES.

With regard to military records, until 2005 military service was compulsory in Italy and all males turning 18 were required to complete a thorough physical and psychological examination assessing their suitability for military service. The psychological test, which was partly based on the Minnesota Multiphasic Personality Inventory (a standardized psychometric test used to elicit individual personality traits, see e.g., Hathaway and McKinley 1951), produced a measure of "general intelligence" ranging between 1 and 7. Individuals scoring 1 or 2 were deemed unfit for the army and exempted from service. We obtained access to restricted-use data on all conscripts born between 1973 and 1978. These individuals were 7–12 years old in 1985, such that they largely correspond to the first age group in online Appendix Table A7 and Figure 6. The data also include the municipality of residence, which we use to match respondents with Mediaset signal strength in 1985.³²

In Table 7 we investigate the effect of early exposure to Mediaset on the general intelligence score (columns 1 and 2) and on the probability of being exempted due to receiving a low general intelligence score (columns 3 and 4). The baseline specification in the odd columns replicates that used for the individual-level regressions in Figure 6 (i.e., controlling for age, the baseline set of municipal characteristics, and

³¹ More recently, Aarts and Semetko (2003) and Prior (2005) show that watching entertainment TV is correlated with lower political knowledge and participation. The impact of entertainment television on sociopolitical engagement has also been examined in the literature on political communication (see Delli Carpini 2012 for a survey of the most relevant contributions).

³² These data were assembled by Peracchi and Arcaleni (2011) to investigate the evolution of physical characteristics of young Italian men. We are extremely grateful to Peracchi and Arcaleni for sharing their data with us.

TABLE 7—EXPOSURE TO MEDIASET AS A CHILD AND ADULT COGNITIVE SKILLS

	General intelligence score		Exempted (score = 1 or 2)	
	(1)	(2)	(3)	(4)
<i>Signal</i>	−0.023 (0.012)	−0.045 (0.018)	0.002 (0.001)	0.006 (0.002)
Sample average	[5.09]	[5.09]	[0.024]	[0.024]
Province fixed effects	Yes	No	Yes	No
Local labor market fixed effects	No	Yes	No	Yes
Observations	1,360,036	1,360,023	1,360,036	1,360,023
R^2	0.052	0.059	0.034	0.041

Notes: The table illustrates the effect of being exposed to entertainment TV as a child on adult cognitive skills, as measured by psychometric tests partly based on the Minnesota Multiphasic Personality Inventory (Hathaway and McKinley 1951). The tests were administered to all Italian males at the time of military conscription (i.e., turning 18 or a few years older). The sample includes all conscripts born in the period 1973–1978. The dependent variable in columns 1 and 2 is a “general intelligence” score ranging between 1 and 7; the dependent variable in columns 3 and 4 is a dummy equal to 1 for individuals exempted from service for scoring particularly low (1 or 2). The sample average of all dependent variables is reported in square brackets. The main explanatory variable, *Signal*, is Mediaset signal strength in 1985. All regressions also include on the right-hand side all municipal controls reported in Table 6, province or LLM fixed effects (odd and even columns, respectively), plus *Age*. Heteroskedasticity-robust standard errors clustered at the municipality-age cohort level in parentheses.

for province fixed effects).³³ Conscripts exposed to entertainment TV during childhood perform worse on psychometric tests compared to their peers who were not exposed, though the effect is relatively small (column 1). However, the increase in the probability of being exempted is substantial: +0.2 percentage points, or 8 percent of the baseline (column 3). Therefore, early exposure to entertainment TV is particularly detrimental for individuals in the bottom part of the distribution of general intelligence score. Since, in this case, the sample is extremely large, we can also exploit variation within narrower geographical areas, namely local labor markets. When we do so, the estimates increase considerably (even columns). Overall, the evidence in Table 7 suggests that exposure to entertainment TV during childhood increases the probability of receiving very low scores on psychometric tests by 8 to 25 percent over the baseline.

We obtain qualitatively similar results using alternative measures of cognitive development available from the OECD-PIAAC survey on adults’ proficiency in literacy and numeracy (see Schleicher 2008 for a description). 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 of age. This is a relatively small sample compared to the universe of military conscripts in Table 7. On the other hand, it allows to estimate the effect on individuals, both males and females, exposed to Mediaset at very different ages. In addition, PIAAC scores in literacy and numeracy provide a more standard measure of cognitive skills than military entry tests.

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, as well as age, gender, and other individual characteristics.

³³In principle, military examination was compulsory upon turning 18. Nevertheless, around 2 percent of conscripts in our data are one or a few years older than 18.

TABLE 8—EXPOSURE TO MEDIASET AT DIFFERENT AGES AND ADULT COGNITIVE SKILLS, CIVIC ENGAGEMENT, AND TV NEWS CONSUMPTION

	PIAAC		ITANES		
	Numeracy score (1)	Literacy score (2)	Interest in politics (3)	Membership of associations (4)	News on Mediaset (5)
Below 10	−16.820 (7.570)	−12.560 (7.390)	−0.147 (0.048)	−0.105 (0.049)	0.038 (0.064)
Age 10–24	−2.390 (5.570)	−0.790 (5.160)	0.008 (0.029)	0.013 (0.031)	0.032 (0.030)
Age 25–44	−2.170 (6.060)	−1.920 (5.300)	0.020 (0.018)	−0.038 (0.021)	0.006 (0.024)
Age 45–54		(0.050)	0.010 (0.049)	0.024 (0.050)	−0.007
55 or more		(0.053)	−0.033 (0.051)	−0.065 (0.070)	0.170
Sample average	[252.9]	[256.4]	[0.355]	[0.355]	[0.389]

Notes: The table examines the effect of being exposed to entertainment TV at different ages (rows) on various individual outcomes in adulthood (columns). The age groups follow the same classification as in online Appendix Table A7 and refer to age in 1985. 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, conducted in 2012. 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 being interested in politics (column 3), participating in any kind of voluntary associations (column 4), and watching news on Mediaset channels (column 5). The sample average of all dependent variables is reported (in square brackets) at the bottom of the table. Each entry reports the estimated coefficient (and corresponding standard error) of *Signal* from a regression including province fixed effects, all municipal controls reported in Table 6, and *Gender* and *Age* of the respondent. The specifications in columns 3 to 5 also control for election year fixed effects. Heteroskedasticity-robust standard errors clustered at the municipal level in parentheses.

In columns 1 and 2 of Table 8 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 6 (i.e., controlling for age, gender, the baseline set of municipal characteristics, and for province fixed effects). Each row in Table 8 reports the estimated coefficient from a separate regression on the subsample of individuals in a given age group, following the same classification as in online Appendix Table A7 and Figure 6 (age in 1985 is reported in the first column of the table).³⁴ We find that adults first exposed to Mediaset at very young ages (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 cognitive achievement of individuals exposed at later ages.

Early exposure to Mediaset has a similar effect on civic engagement, as measured by the ITANES survey. Specifically, the dependent variable in column 3 of Table 8 is a dummy for being fairly or very interested in politics, and the dependent

³⁴ Since 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.

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, i.e., about one-fifth of a standard deviation.

All individual-level results on cognitive skills and civic engagement in Tables 7 and 8 are unaffected when restricting to smaller municipalities, see Figure 7. In online Appendix D we provide additional evidence regarding the effect on civic engagement using census data on the number of voluntary associations in 1981, 1991, and 2001.

Overall, these results 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 similarly large effect of early exposure to Mediaset for the older cohorts (55+ in 1985) seems instead driven by a higher probability of watching Mediaset newscasts after these were introduced in 1991. This result is shown in column 5 of Table 8, 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 markedly pro-Berlusconi bias of Mediaset newscasts (documented by Durante and Knight 2012).

To summarize, the evidence presented thus 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 on Mediaset and later exposed to biased news content on the same channels.

D. *The Effect of Cognitive Skills and Civic Engagement on Voting*

We next examine the implications of a decline in cognitive abilities and civic engagement, potentially favored by exposure to entertainment TV, particularly at a young age, 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.

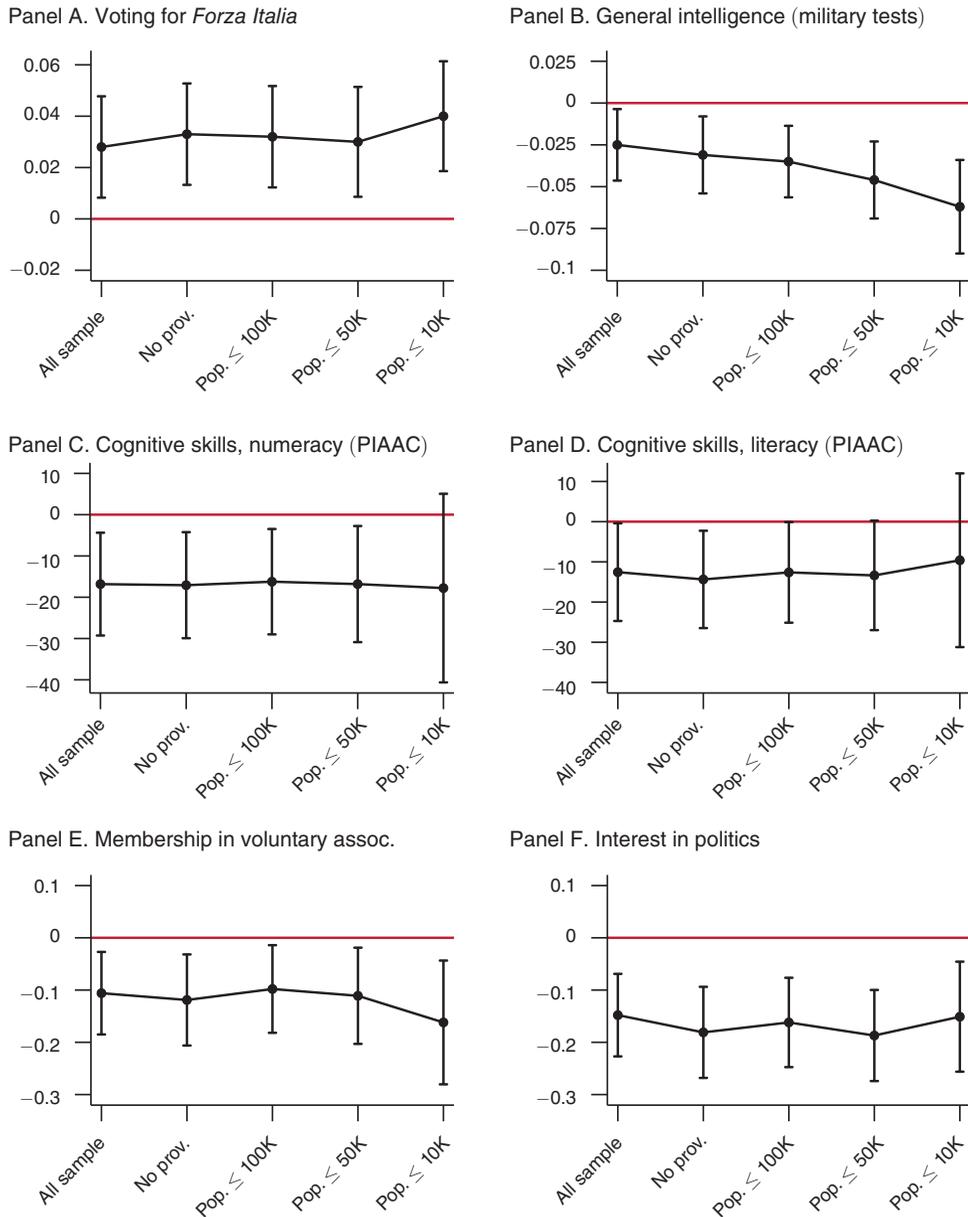


FIGURE 7. EXPOSURE TO MEDIASET AND INDIVIDUAL-LEVEL OUTCOMES, ROBUSTNESS

Note: These graphs show the estimated effect of *Signal* on individual-level outcomes (and associated confidence intervals) when restricting the sample to progressively smaller municipalities, indicated on the horizontal axis.

The results are reported in Figure 8, in which we plot the coefficients of *Signal* on voting for each party against the corresponding coefficients for education (panel A) and for the number of voluntary associations (panel B). Both graphs display a strong negative relationship. This indicates that parties who fare worse among more educated and civic-minded voters, namely, *Forza Italia* and *M5S*, are precisely those

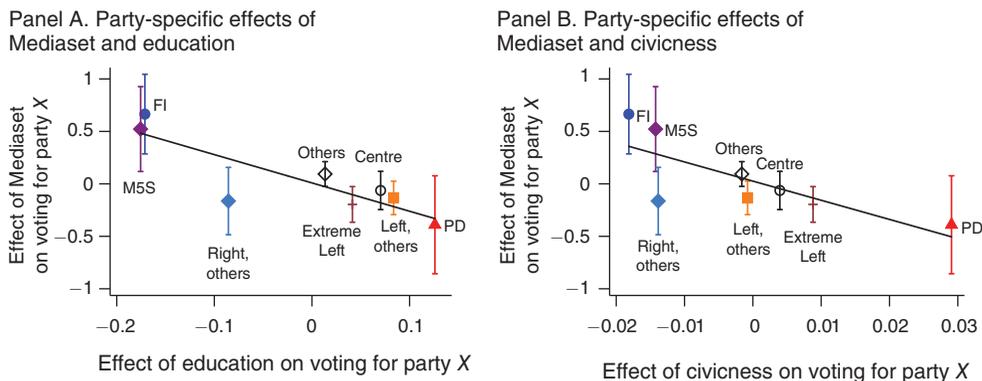


FIGURE 8. THE EFFECT OF EXPOSURE TO MEDIASET, EDUCATION, AND CIVIC ENGAGEMENT ON PARTIES' ELECTORAL SUPPORT

Notes: The figure illustrates the relationship between the effect of exposure to Mediaset (and associated confidence intervals) and the effects of education and civic engagement, respectively, on support for the main parties of the Second Republic. In particular, panels A and B plot the coefficient of *Signal* (y-axis) against, respectively, the coefficients of schooling levels and civic engagement in 1981 (x-axis). The coefficients are obtained from estimating equation (1) separately for each party, pooling together results of all elections and including year fixed effects.

who gained the most from the advent of Mediaset, while parties with higher support among these groups, notably the PD, were disadvantaged.³⁵

E. 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).³⁶

We test whether Berlusconi's communication style is indeed more accessible than that of other Italian politicians using text data from two sources: party manifestos and TV debates. Party manifestos are issued by political parties to communicate their electoral platform to voters, and have been widely used to infer parties' ideological positions (Gabel and Huber 2000). We obtained from the Manifesto Project Database the electoral manifestos of all main parties running in Italian general elections since 1983, for a total of 34 manifestos (reported in online Appendix Table A11) and a corpus of almost 650,000 words. We then coded the texts in terms of their language simplicity using the Gulpease Index (GI), which adapts the Flesch-Kincaid Index of readability to the Italian language (Flesch 1948; Kincaid et al. 1975; Tonelli, Manh, and Pianta 2012). In particular, the GI is an inverse function of

³⁵The estimated coefficients of interest and standard errors are reported in the top panel of online Appendix Table A8. In the bottom panel of the table we also interact *Signal* with both education and civic engagement, as the evidence in Figure 8 could alternatively be explained by heterogeneous effects of entertainment TV across municipalities with different levels of education and civic engagement. However, the interaction coefficients are generally nonsignificant, such that the relationship between the effect of Mediaset and the effects of education and civic engagement is unaffected when allowing for interaction effects; see online Appendix Figure A7.

³⁶Some 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, p. 232). For a survey of the most relevant contributions on the political communication of European populist parties, see Aalberg et al. (2016).

the average length of sentences and words, and ranges from 0 (minimum readability) to 100 (maximum readability).

While electoral manifestos are widely used in political analyses, other forms of political communication may be more appropriate for our purposes. Specifically, communication style in TV appearances may be more relevant for explaining differences in voting between individuals differentially exposed to Mediaset. For this reason, we transcribed a large corpus of televised interventions by the main Italian political leaders during all electoral campaigns of the Second Republic. Online Appendix E describes the criteria used to select TV appearances, and the final list of interventions used in our analysis (Table A12). The corpus comprises 43 televised interventions by 16 politicians, for a total of over 55 hours of footage and 320,000 spoken words. The main drawback of this alternative source is that we cannot rely on the GI, as the latter heavily depends on punctuation that is partly arbitrary in transcriptions of spoken language. We therefore assessed the simplicity of the language used by each politician based on the share of “simple” words, as defined by De Mauro and Vedovelli (1980), over other (i.e., non-simple) words.

In Table 9 we regress our two linguistic indexes on a dummy equal to 1 for *Forza Italia*, across all parties and elections over the period 1994-2013. *Forza Italia* and its leader adopt a much simpler communication style than the other parties and leaders. According to the baseline specification (columns 1 and 4), differences amount to one-half of a standard deviation in the GI and one standard deviation in spoken language simplicity, respectively. These estimates are only slightly affected when controlling for year fixed effects (columns 2 and 5) and for a dummy for right-wing parties (columns 3 and 6). Indeed, ideology does not seem to matter for politicians’ communication style: the coefficient of the dummy for right-wing parties is not statistically significant and small in magnitude. Instead, communication style is most similar between Berlusconi and the populist leader of the M5S; see the additional evidence in online Appendix Figure A9. The M5S is also the only other party attracting votes from individuals who were exposed earlier to entertainment TV (Table 5). These last findings dovetail nicely with the results in Table 6 on the relative importance of populist attitudes and ideology for explaining our results.

Overall, 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).

F. *Additional Mechanisms*

The results presented thus 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 move to our third hypothesis, namely that early Mediaset viewers were more likely to know Berlusconi when he first ran for office and they were more sympathetic toward him.

To investigate this possibility, we exploit additional survey data on Berlusconi’s popularity. We estimate the same baseline specification as in column 1 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

TABLE 9—READABILITY OF PARTY MANIFESTOS AND COMMUNICATION STYLES IN TV DEBATES

	Party manifestos			TV debates		
	Gulpease Index			Percent of commonly used words		
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Forza Italia</i>	5.962 (1.319)	5.260 (1.593)	5.212 (2.019)	2.465 (0.816)	2.319 (0.613)	3.263 (0.989)
Right-wing			0.065 (1.426)			-1.250 (1.158)
Observations	34	34	34	37	37	37
Number of words	648,357	648,357	648,357	290,014	290,014	290,014
Year fixed effects	No	Yes	Yes	No	Yes	Yes
R ²	0.260	0.467	0.467	0.261	0.545	0.565

Notes: The table shows differences in the communication style of Berlusconi and its party, *Forza Italia*, compared to the other political leaders and parties in Italy. The dependent variable in columns 1 to 3 is the Gulpease Index, a standard measure of text readability, computed on the electoral manifestos issued by the main Italian parties before all general elections since 1983. The dependent variable in columns 4 to 6 is the share of commonly used words used by the main Italian politicians in relevant TV appearances since 1989 (online Appendix E provides additional details). The main explanatory variable is a dummy equal to 1 for the electoral manifestos issued by *Forza Italia* (columns 1–3) and TV appearances of Berlusconi (columns 4–6). Specifications in columns 2–3 and 5–6 include year fixed effects, and specifications 3 and 6 also include a dummy for right-wing parties and leaders, respectively. Observations are weighted by the number of words in each party manifesto and TV debate, respectively, and the total number of words is reported at the bottom of the table. Heteroskedasticity-robust standard errors are reported in parentheses.

two individuals who “had done most for Italy.” A fairly high share of respondents (13.3 percent) indicated Berlusconi as one of their choices, but there is no correlation with better access to Mediaset in 1985; see column 1 of Table 10. 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 percent of respondents already knew of 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 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 either a man or 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.

TABLE 10—EXPOSURE TO MEDIASET AND OPINIONS ABOUT BERLUSCONI

	Done most for Italy (1993) (1)	Don't know him (1994) (2)	Qualified (3)	Honest (4)	Coherent (5)	Sincere (6)	Trustworthy (7)	Statesman (8)	Rating [1–10] (9)
<i>Signal</i>	0.075 (0.068)	−0.001 (0.017)	0.010 (0.030)	0.001 (0.017)	−0.046 (0.042)	−0.031 (0.042)	0.045 (0.026)	−0.029 (0.043)	0.076 (0.068)
Sample average	[0.132]	[0.094]	[0.619]	[0.352]	[0.626]	[0.581]	[0.518]	[0.629]	[5.37]
Observations	519	2,556	4,761	7,766	2,632	2,551	4,840	2,630	13,584

Notes: 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. 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). The sample average of all dependent variables is reported in square brackets. Each entry reports the estimated coefficient (and corresponding standard error) of *Signal* from a regression including province fixed effects, election year fixed effects, all municipal controls reported in Table 6, and *Gender* and *Age* of the respondent. Heteroskedasticity-robust standard errors clustered at the municipal level in parentheses.

VI. 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 percent), it persists over five elections, and is more pronounced for individuals first exposed to entertainment TV at young ages. 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. Although specific to the Italian case, our analysis provides more general insights into how cultural codes popularized by entertainment media can influence political preferences.

REFERENCES

- Aalberg, Toril, Frank Esser, Carsten Reinemann, Jesper Strömbäck, and Claes H. de Vreese. 2016. *Populist Political Communication in Europe*. New York: Routledge.
- Aarts, Kees, and Holli A. Semetko. 2003. "The Divided Electorate: Media Use and Political Involvement." *Journal of Politics* 65 (3): 759–84.

- American Academy of Pediatrics.** 2001. "Children, Adolescents, and Television." *Pediatrics* 107 (2): 423–26.
- Anderson, Daniel R., Aletha C. Huston, Kelly L. Schmitt, and Deborah L. Linebarger, and John C. Wright.** 2001. "Early Childhood Television Viewing and Adolescent Behavior: The Recontact Study." *Monographs of the Society for Research in Child Development* 66 (1).
- Anderson, Daniel R., and Tiffany A. Pempek.** 2005. "Television and Very Young Children." *American Behavioral Scientist* 48 (5): 505–22.
- Arzheimer, Kai.** 2009. "Contextual Factors and the Extreme Right Vote in Western Europe, 1980–2002." *American Journal of Political Science* 53 (2): 259–75.
- Barone, Guglielmo, Francesco D'Acunto, and Gaia Narciso.** 2015. "Telecracy: Testing for Channels of Persuasion." *American Economic Journal: Economic Policy* 7 (2): 30–60.
- Barone, Guglielmo, Alessio D'Ignazio, Guido de Blasio, and Paolo Naticchioni.** 2016. "Mr. Rossi, Mr. Hu and Politics: The Role of Immigration in Shaping Natives' Voting Behavior." *Journal of Public Economics* 136: 1–13.
- Bellucci, Paolo, and Oliver Heath.** 2012. "The Structure of Party-Organization Linkages and the Electoral Strength of Cleavages in Italy, 1963–2008." *British Journal of Political Science* 42 (1): 107–35.
- Bellucci, Paolo, and Marco Maraffi.** 2008. "ITANES: The Italian National Election Study Series." *Italian Political Science* 1.
- Bursztyjn, Leonardo, and Davide Cantoni.** 2016. "A Tear in the Iron Curtain: The Impact of Western Television on Consumption Behavior." *Review of Economics and Statistics* 98 (1): 25–41.
- Campante, Filipe, Ruben Durante, and Francesco Sobbrino.** 2013. "Politics 2.0: The Multifaceted Effect of Broadband Internet on Political Participation." *Journal of the European Economic Association* 16 (4): 1094–136.
- Canovan, Margaret.** 1999. "Trust the People! Populism and the Two Faces of Democracy." *Political Studies* 47 (1): 2–16.
- Chonchaiya, Weerasak, and Chandhita Pruksananonda.** 2008. "Television Viewing Associates with Delayed Language Development." *Acta Paediatrica* 97 (7): 977–82.
- Christakis, Dimitri A., Michelle M. Garrison, Todd Herrenkohl, Kevin Haggerty, Frederick P. Rivara, Chuan Zhou, and Kimberly Liekweg.** 2013. "Modifying Media Content for Preschool Children: A Randomized Controlled Trial." *Pediatrics* 131 (3): 431–38.
- Christakis, Dimitri A., Frederick J. Zimmerman, David L. DiGiuseppe, and Carolyn A. McCarty.** 2004. "Early Television Exposure and Subsequent Attentional Problems in Children." *Pediatrics* 113 (4): 708–13.
- Colella, Fabrizio, Rafael Lalive, Seyhun Orcan Sakalli, and Mathias Thoenig.** 2018. "Inference with Arbitrary Clustering." Unpublished.
- Conley, Timothy G.** 1999. "GMM Estimation with Cross Sectional Dependence." *Journal of Econometrics* 92 (1): 1–45.
- Constitutional Court of Italy.** 1988. "Sentenza n. 826/1988 del 13–14 Luglio 1988." Technical report.
- Della Vigna, Stefano, Ruben Enikolopov, Vera Mironova, Maria Petrova, and Ekaterina Zhuravskaya.** 2014. "Cross-Border Media and Nationalism: Evidence from Serbian Radio in Croatia." *American Economic Journal: Applied Economics* 6 (3): 103–32.
- Della Vigna, Stefano, and Ethan Kaplan.** 2007. "The Fox News Effect: Media Bias and Voting." *Quarterly Journal of Economics* 122 (3): 1187–234.
- Della Vigna, Stefano, and Eliana La Ferrara.** 2016. "Economic and Social Impacts of the Media." In *Handbook of Media Economics*, Vol. 1B, edited by Simon Anderson, Joel Waldfogel, and David Stromberg, 723–68. Amsterdam: Elsevier.
- Delli Carpini, Michael X.** 2012. "Entertainment Media and the Political Engagement of Citizens." In *The SAGE Handbook of Political Communication*, edited by Holli A. Semetko and Margaret Scammell, 9–21. London: SAGE Publications.
- De Mauro, Tullio, and M. Vedovelli.** 1980. "Vocabolario di base della lingua italiana." In *Guida all'uso delle parole: Come parlare e scrivere semplice e preciso per capire e farsi capire*. Editori Riuniti.
- Dippel, Christian, Robert Gold, and Stephan Heblich.** 2015. "Globalization and Its (Dis-)Content: Trade Shocks and Voting Behavior." NBER Working Paper 21812.
- Durante, Ruben, and Brian Knight.** 2012. "Partisan Control, Media Bias, and Viewer Responses: Evidence from Berlusconi's Italy." *Journal of the European Economic Association* 10 (3): 451–81.
- Durante, Ruben, Paolo Pinotti, and Andrea Tesei.** 2019. "The Political Legacy of Entertainment TV: Dataset." *American Economic Review*. <https://doi.org/10.1257/aer.20150958>.
- Enikolopov, Ruben, Maria Petrova, and Ekaterina Zhuravskaya.** 2011. "Media and Political Persuasion: Evidence from Russia." *American Economic Review* 101 (7): 3253–85.
- Ennemoser, Marco, and Wolfgang Schneider.** 2007. "Relations of Television Viewing and Reading: Findings from a 4-Year Longitudinal Study." *Journal of Educational Psychology* 99 (2): 349–68.

- Farré, Lúdia, and Francesco Fasani. 2013. "Media Exposure and Internal Migration: Evidence from Indonesia." *Journal of Development Economics* 102: 48–61.
- Flesch, Rudolph. 1948. "A New Readability Yardstick." *Journal of Applied Psychology* 32 (3): 221–33.
- Gabel, Matthew J., and John D. Huber. 2000. "Putting Parties in Their Place: Inferring Party Left-Right Ideological Positions from Party Manifestos Data." *American Journal of Political Science* 44 (1): 94–103.
- Gentzkow, Matthew, and Jesse M. Shapiro. 2008. "Preschool Television Viewing and Adolescent Test Scores: Historical Evidence from the Coleman Study." *Quarterly Journal of Economics* 123 (1): 279–323.
- Hancox, Robert J., Barry J. Milne, and Richie Poulton. 2005. "Association of Television Viewing during Childhood with Poor Educational Achievement." *Archives of Pediatrics and Adolescent Medicine* 159 (7): 614–18.
- Hathaway, Starke Rosecrans, and John Charnley McKinley. 1951. *Minnesota Multiphasic Personality Inventory: Manual*. New York: Psychological Corporation.
- Heckman, James J. 2006. "Skill Formation and the Economics of Investing in Disadvantaged Children." *Science* 312 (5782): 1900–02.
- Hernæs, Øystein, Simen Markussen, and Knut Røed. Forthcoming. "Television, Cognitive Ability, and High School Completion." *Journal of Human Resources*.
- Hopkin, Jonathan, and Caterina Paolucci. 1999. "The Business Firm Model of Party Organisation: Cases from Spain and Italy." *European Journal of Political Research* 35 (3): 307–39.
- Hufford, George A. 2002. "The ITS Irregular Terrain Model, version 1.2. 2 The Algorithm." Washington, DC: Institute for Telecommunication Sciences. <http://flattop.its.bldrdoc.gov/itm.html>.
- Instituto Nazionale di Statistica (ISTAT). 1986. *Indagine sulla lettura e su altri aspetti dell'impiego del tempo libero: anno 1984*. Rome: ISTAT.
- Instituto Nazionale di Statistica (ISTAT). 2011. *Labour Market Areas*. Rome: ISTAT.
- Jagers, Jan, and Stefaan Walgrave. 2007. "Populism as Political Communication Style: An Empirical Study of Political Parties' Discourse in Belgium." *European Journal of Political Research* 46 (3): 319–45.
- Jensen, Robert, and Emily Oster. 2009. "The Power of TV: Cable Television and Women's Status in India." *Quarterly Journal of Economics* 124 (3): 1057–94.
- Jones, Erik, and Gianfranco Pasquino. 2015. *The Oxford Handbook of Italian Politics*. Oxford: Oxford University Press.
- Kearney, Melissa S., and Phillip B. Levine. 2015a. "Early Childhood Education by MOOC: Lessons from Sesame Street." NBER Working Paper 21229.
- Kearney, Melissa S., and Phillip B. Levine. 2015b. "Media Influences on Social Outcomes: The Impact of MTV's 16 and Pregnant on Teen Childbearing." *American Economic Review* 105 (12): 3597–632.
- Khan, Kiren S., Kelly M. Purtell, Jessica Logan, Arya Ansari, and Laura M. Justice. 2017. "Association between Television Viewing and Parent-Child Reading in the Early Home Environment." *Journal of Developmental & Behavioral Pediatrics* 38 (7): 521–27.
- Kincaid, J. Peter, Robert P. Fishburne Jr., Richard L. Rogers, and Brad S. Chissom. 1975. *Derivation of New Readability Formulas (Automated Readability Index, Fog Count and Flesch Reading Ease Formula) for Navy Enlisted Personnel*. Millington, TN: Naval Technical Training Command Research Branch.
- Kirkorian, Heather L., Ellen A. Wartella, and Daniel R. Anderson. 2008. "Media and Young Children's Learning." *Future of Children* 18 (1): 39–61.
- La Ferrara, Eliana, Alberto Chong, and Suzanne Duryea. 2012. "Soap Operas and Fertility: Evidence from Brazil." *American Economic Journal: Applied Economics* 4 (4): 1–31.
- Landhuis, Carl Erik, Richie Poulton, David Welch, and Robert John Hancox. 2007. "Does Childhood Television Viewing Lead to Attention Problems in Adolescence? Results from a Prospective Longitudinal Study." *Pediatrics* 120 (3): 532–37.
- Mastrocco, Nicola, and Luigi Minale. 2018. "News Media and Crime Perceptions: Evidence from a Natural Experiment." *Journal of Public Economics* 165: 230–55.
- Mazzoleni, Gianpietro, Julianne Stewart, and Bruce Horsfield, eds. 2003. *The Media and Neo-Populism: A Contemporary Comparative Analysis*. Westport, CT: Praeger Publishers.
- Mistry, Kamila B., Cynthia S. Minkovitz, Donna M. Strobino, and Dina L. G. Borzekowski. 2007. "Children's Television Exposure and Behavioral and Social Outcomes at 5.5 Years: Does Timing of Exposure Matter?" *Pediatrics* 120 (4): 762–69.
- Moffitt, Benjamin, and Simon Tormey. 2014. "Rethinking Populism: Politics, Mediatization and Political Style." *Political Studies* 62 (2): 381–97.
- Mudde, Cas. 2007. *Populist Radical Right Parties in Europe*. Cambridge: Cambridge University Press.

- Mughan, Anthony, Clive Bean, and Ian McAllister.** 2003. "Economic Globalization, Job Insecurity and the Populist Reaction." *Electoral Studies* 22 (4): 617–33.
- Oesch, Daniel.** 2008. "Explaining Workers' Support for Right-Wing Populist Parties in Western Europe: Evidence from Austria, Belgium, France, Norway, and Switzerland." *International Political Science Review* 29 (3): 349–73.
- Olken, Benjamin A.** 2009. "Do Television and Radio Destroy Social Capital? Evidence from Indonesian Villages." *American Economic Journal: Applied Economics* 1 (4): 1–33.
- Peracchi, Franco, and Emilia Arcaleni.** 2011. "Early-Life Environment, Height and BMI of Young Men in Italy." *Economics and Human Biology* 9 (3): 251–64.
- Phillips, Caleb, Douglas Sicker, and Dirk Grunwald.** 2011. "The Stability of The Longley-Rice Irregular Terrain Model for Typical Problems." *arXiv:1109.1843*.
- Prior, Markus.** 2005. "News vs. Entertainment: How Increasing Media Choice Widens Gaps in Political Knowledge and Turnout." *American Journal of Political Science* 49 (3): 577–92.
- Putnam, Robert D.** 2000. *Bowling Alone: The Collapse and Revival of American Community*. New York: Simon & Schuster.
- Schleicher, Andreas.** 2008. "PIAAC: A New Strategy for Assessing Adult Competencies." *International Review of Education* 54 (5–6): 627–50.
- Schmidt, Marie Evans, and Elizabeth A. Vandewater.** 2008. "Media and Attention, Cognition, and School Achievement." *Future of Children* 18 (1): 63–85.
- Shin, Nary.** 2004. "Exploring Pathways from Television Viewing to Academic Achievement in School Age Children." *Journal of Genetic Psychology* 165 (4): 367–82.
- Tonelli, Sara, Ke Tran Manh, and Emanuele Pianta.** 2012. "Making Readability Indices Readable." In *Proceedings of the First Workshop on Predicting and Improving Text Readability for Target Reader Populations*, 40–48. Montreal: Association for Computational Linguistics.
- van Kessel, Stijn.** 2015. *Populist Parties in Europe: Agents of Discontent?* Basingstoke, UK: Palgrave Macmillan.
- Verbeek, Bertjan, and Andrej Zaslove.** 2016. "Italy: A Case of Mutating Populism?" *Democratization* 23 (2): 304–23.
- Williams, Tannis MacBeth.** 1985. "Implications of a Natural Experiment in the Developed World for Research on Television in the Developing World." *Journal of Cross-Cultural Psychology* 16 (3): 263–87.
- Williams, Tannis MacBeth.** 1986. *The Impact of Television: A Natural Experiment in Three Communities*. Orlando, FL: Academic Press.
- Yanagizawa-Drott, David.** 2014. "Propaganda and Conflict: Evidence from the Rwandan Genocide." *Quarterly Journal of Economics* 129 (4): 1947–94.
- Zimmerman, Frederick J., and Dimitri A. Christakis.** 2007. "Associations between Content Types of Early Media Exposure and Subsequent Attentional Problems." *Pediatrics* 120 (5): 986–92.