How the Ultrarich Use Media Ownership as a Political Investment

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Can the ultrarich shape electoral results by controlling media outlets that openly propagate their political interests? Whether consumers discount slanted media coverage is a question gaining urgency as a growing number of billionaires mix ownership of major media outlets with business interests and political agendas. We study this question in the context of Israel, where billionaire Sheldon Adelson launched in 2007 *Israel Hayom*, a right-leaning newspaper. Handed out for free, it soon became the most widely read newspaper nationally. Using local media exposure data since the launch, our analysis indicates that the newspaper exerted significant electoral influence, primarily benefiting Netanyahu and his Likud party. This shift helped bring about a sea change in the right's dominance of national politics. The findings highlight the immense impact the ultrarich can exert in shaping politics through media ownership.

Political equality is continuously challenged by the influence of money on politics. Rising economic inequality, together with the increased reliance of political campaigns on unprecedented levels of private contributions (Bonica et al. 2013), has meant that the rich exert far greater political influence than citizens with lesser means. This is evidenced, for example, by the close alignment between the policy preferences of higher-income citizens and the policies politicians choose to advance (Gilens 2012) and a "revolving door" between public service and the lobbying industry, which ensures that interests of the affluent are well represented among government officials (Blanes i Vidal, Draca, and Fons-Rosen 2012).

One insufficiently discussed route by which the superrich can obtain outsized political clout is through ownership of media outlets. Such control allows owners to influence news content and possibly affect both public opinion and voting in a way that advances their ideological or partisan preferences. Moreover, control over news outlets provides owners with a valuable asset they can use as leverage or to curry favor with politicians.

In certain cases, as with Rupert Murdoch—owner of numerous media outlets, including Fox News, *Wall Street Journal*, and various British tabloids—media control has generated not only immense profits but also exceptional political access and influence (Wolff 2008). In other instances, as in Turkey (Yagci and Oyvat 2020) and Hungary (Szeidl and Szucs 2021), wealthy businessmen with close ties to the government acquired existing media outlets at the behest of the leadership—Erdoğan and Orbàn, respectively—who sought to use those outlets to promulgate their political message. And yet in other cases, such as Berlusconi in Italy (Durante, Pinotti, and Tesei 2019) and Blocher in Switzerland (Spirig 2021), business tycoons have leveraged their ownership of media outlets to advance their own political ambitions and to seek elected office.

When media outlets are used to advance the owners' political agenda, a natural worry is that the news media does

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not fill one of its crucial roles in a democracy, namely, helping ensure that politicians are held accountable for their actions and performance. Rather than holding power accountable, the concern is that media outlets become "lapdogs rather than watchdogs," that is, biased news providers that serve primarily as a vehicle for promoting the agenda of their owners.

However, such outcome is not a foregone conclusion. For example, past work has shown formally that if owners are predominantly profit driven, the extent to which they can shift the coverage of news to their ideological bent may be constrained by consumers' preferences (Prat and Strömberg 2013). If a news outlet is seen by consumers as outwardly biased in a direction that differs from their own views, they could opt for other news sources that are either perceived as more reliable or as more congruent with their political preferences (Durante and Knight 2012). By this view, two continuing trends in the media market—increased competition due to market fragmentation and news outlets' adoption of an unabashed political slant—should limit the political influence that ideologically bent media owners may exert (Bennett and Iyengar 2008).

While plausible, the argument that news outlets with a known slant will have only limited political influence rests on two key assumptions, both of which are problematic. The first assumption is that media markets are not merely competitive but also relatively elastic.[1] This means that consumers with a preference for news coverage that is congruent with their worldview will detect the slant of the coverage they consume (Gentzkow, Shapiro, and Sinkinson 2014) and switch to a news outlet that is closer in its political stance to their own. In practice, however, many media markets are quite inelastic, such that consumers cannot easily find an alternative news outlet of comparable quality that is more in line with their worldview (Noam 2016). In addition, people often underestimate the slant in the media they regularly consume (Eyster and Rabin 2010) and thus tend to stick with the news sources to which they are accustomed (Chernev 2003). This implies that even if the coverage of a given news outlet is increasingly biased politically, consumers will not immediately abandon it in favor of a different outlet (Martin and McCrain 2019).

The second assumption is that owners of news outlets prioritize profit making. While certainly true for some owners, this assumption does not necessarily apply to ultrawealthy owners, who may be less concerned with profits and instead prioritize exerting political influence. Such prioritization could have weighty implications, because the less owners care about profit, the less they need their news outlet to cater to the preferred slant of the median consumer (Martin and Yurukoglu 2017). Importantly, an alternative approach to attract consumers who hold incongruent political views can be to enhance the value proposition of the news outlet. This can be done, for example, by increasing the quality of the newspaper or by lowering its price.[2] If consumers are willing to trade off ideological congruence for a news outlet with high value, the question of whether politically slanted media can have an electoral impact depends on whether consumers appropriately discount the news outlet's slant (Barone, D'Acunto, and Narciso 2015).

Taken together, theory alone cannot tell us whether the current media landscape has indeed ushered in "a new era of minimal [media] effects," as some have argued (Bennett and Iyengar 2008). However, it does point to the conditions under which it is more likely to have said impact. On one hand, the more fragmented the media market and the more the political slant of different outlets is known, the easier it is for consumers to self-select news providers that offer coverage congruent with their political leanings; this in turn should reduce the news media's persuasion effect. On the other hand, the more owners prioritize political influence over profit making, and the less markets are elastic, the more likely citizens are to consume news from outlets that are further away politically from their ideal point, thereby opening the possibility for greater political persuasion (Baum 2008).

To date, the empirical research on this question is both limited and mixed. Whereas some studies find electoral effects of politically slanted news (DellaVigna and Kaplan 2007; Martin and Yurukoglu 2017), other studies find that slanted news have no impact on vote choice (Gentzkow, Shapiro, and Sinkinson 2011; Reeves, McKee, and Stuckler 2016; Spirig 2021). And in the instances where an effect on voting is detected, evidence indicates that the influence stems primarily from increasing turnout among the base, not from persuasion of voters to switch sides (Hopkins and Ladd 2014; Peisakhin and Rozenas 2018).[3] Importantly, the limited

1. Competitiveness in media markets means that consumers face a sizable menu of options, which allows them to choose a news outlet based not only on its ideological slant but also on its quality and price. In truly competitive markets, for a given combination of quality and price, profit-driven owners can only pursue customers by distinguishing themselves on the political slant margin.

2. Relatedly, consumers may choose an ideologically incongruent news outlet because they derive utility from consuming nonpolitical content, such as sports and entertainment (Durante et al. 2019).

3. The evidence regarding persuasion effects of news outlets with a known slant in rich democracies is even more limited given that much of it is drawn from contexts that are far removed from the contemporary media

effects of news media with a widely known slant could be accounted for by two factors noted above. First, they may be a result of selection; that is, of consumers shunning news outlets that outwardly espouse an ideological stance that differs from their own. Second, even when exposed to news coverage of an opposing political view, people may find this stance unpersuasive or filter it out altogether (Taber and Lodge 2006).

This study investigates a case in which the first problem—consumers selecting not to read partisan media with a slant that differs from their own—is largely circumvented by the outlet's marketing strategy: a free newspaper with broad geographic coverage and an aggressive outreach operation. Thus, the question we study is squarely the latter: conditional on exposure to news media with both a strong and well-known ideological slant, what is its impact on persuasion and turnout?

We focus on the case of *Israel Hayom* (henceforth *IH*), an Israeli daily newspaper owned by Sheldon Adelson, an American billionaire who (until his recent passing) was one of the largest donors to the Republican Party. Adelson, at the encouragement of then opposition leader Benjamin Netanyahu, launched the newspaper in 2007 in order to "balance" an alleged liberal media landscape. The newspaper was to be handed out for free,[4] with the management proclaiming that over time, a large readership will allow it to make a profit from advertising (in fact, *IH* loses on average about $27 million a year) (*Haaretz* 2017a). Despite accusations by critics that *IH* is systematically biased to the right and is dedicated to promoting Netanyahu's political agenda, within only four years of circulation it became the most widely read newspaper nationally, one that is consumed by readers across the ideological spectrum. In this study we assess whether *IH* affected voting behavior in Israel and, incidentally, contributed to Netanyahu's success in gaining and staying in power for over a decade.

We first analyze the text of hundreds of *Israel Hayom* issues and compare them to the content published in *Yediot*—Israel's most mainstream (i.e., secular, centrist) newspaper—over this time period. We find that *IH*'s right-wing slant manifested itself not only in more right-leaning coverage of the same news items (framing bias) but also in the news domains it chose to cover (issue bias) and in the use of visuals (e.g., choice of front page pictures) that were more favorable to the right, and specifically to Netanyahu and the Likud party.

We then use pooled two-way fixed effects models and a first-difference estimator and find a strong positive relationship between higher rates of *IH* readership and increased support for the right bloc over a 10-year period. This finding is robust to flexibly controlling for pretreatment covariates that are known to affect voting in Israel. To alleviate concern that *IH* exposure is higher in places trending to the right due to other factors, we further control for trend in voting to right-bloc parties. Consistent with our content analysis, the Likud is the main beneficiary. To alleviate concerns regarding reverse causality, we supplement the fixed effects and first-difference estimation strategies with an instrumental variable approach that exploits exposure rates to *Yediot* in the period prior to *IH*'s 2007 launch.[5]

We estimate that a one-standard-deviation increase in *IH* readership, instrumented by past *Yediot* readership, causes about a 1.5%–2% increase in right-bloc vote share in 2013 and 2015 (with a less precise effect in 2009). This is a substantively meaningful effect in the Israeli context, where elections are often decided on narrow margins. When comparing localities at the 25th percentile of exposure to the newspaper to localities at the 75th percentile, we find that the latter's voting for right-bloc parties was 2.1 percentage points higher. As these estimates are based on the localized effects of *IH*, they likely reflect a lower bound of the newspaper's overall national impact.

When exploring mechanisms, we find that exposure to *IH* had no discernible effect on turnout. Instead, the effect came about primarily through persuasion, estimated at a 7.9% implied persuasion rate, an effect comparable to that of major media outlets in other countries (DellaVigna and Gentzkow 2010). Analysis of individual-level survey data suggests that this shift was likely due to the effect of the *IH* coverage on the views of its readers on security issues and on Netanyahu's qualities as a leader.

The influence of money on politics is not a new phenomenon but merits increased attention with the wave of ultra-rich individuals buying control of major news outlets. From Jeff Bezos's purchase of the *Washington Post*, John Henry

environment. Some of the studies examine media in the early twentieth century (Adena et al. 2015; Gentzkow et al. 2011), in nondemocracies (Enikolopov, Petrova, and Zhuravskaya 2011; Peisakhin and Rozenas 2018), or where the media effect stems from entertainment media competing with, and thus reducing the influence of, the news (Durante et al. 2019).

4. This business model is not unique to *IH*. Free papers have fairly sizable readerships estimated in countries such as France (2.6 million), United Kingdom (2.3 million), and Austria (1.3 million) (Milosevich 2016).

5. As we show below, before *IH*'s launch, *Yediot* readership was not correlated with voting for the right bloc in four separate elections (1996, 2001, 2003, and 2006). However, after the launch, *Yediot* (past) readership strongly predicts subsequent *IH* exposure and voting for right parties. We also demonstrate that *Yediot* did not shift its coverage in response to *IH*'s launch.

buying the *Boston Globe*, through to Patrick Soon-Shiong's acquisition of the *LA Times*, the concentration of major news outlets in the hands of a select group of ultrawealthy individuals is a development with potentially major implications. Whereas some have celebrated these investors as potential saviors of the struggling print media, our study points to a more problematic aspect of these investments, namely, their ability to provide media owners with powerful tools to influence public opinion and voting behavior (*New York Times* 2018).

Our findings speak to the debate regarding the impact of slanted media on voting behavior (Puglisi and Snyder 2016). Contra to some influential political economy models that downplay the possibility that media with a widely known slant can exert substantial impact on voting, we show that that is not always the case. Once the outreach model of the newspaper overcomes partisan sorting and reaches voters from outside the newspaper's ideological base, persuasion does take place and can be politically consequential.

In addition, our analysis contributes to the study of politics in Israel. While left and right used to be evenly balanced rival camps in the 1980s and 1990s, the right has gained unprecedented dominance in recent years, with Netanyahu's premiership spanning over a decade, making him the longest serving Israeli prime minister. There are a multitude of reasons for this rightward shift (Cohen-Zada, Margalit, and Rigbi 2016; Grossman, Manekin, and Miodownik 2015; Manekin, Grossman, and Mitts 2019), but our study points to an important and heretofore understudied factor: the successful launch of *Israel Hayom*. Given that the newspaper's foreign owner kept maintaining the operation despite its loss-generating business model, the influence of this outlet deserves rigorous examination.

STUDY CONTEXT

Over the past decade, few issues in Israeli politics have been as contested as the entry and rapid rise of the daily *Israel Hayom* (which translates to Israel Today). Its dramatic success, and subsequent political significance, have come after decades in which the Israeli printed newspaper market was dominated by a single daily, *Yediot Ahronot* (Latest News). *Yediot*, as the newspaper is commonly referred to, as well as its weaker competitor *Maariv*, cater to a Jewish and relatively secular readership that is broadly regarded as the political mainstream.[6] In addition, several low-circulation newspapers operate beside them and cater to narrower political constituencies.

Against this backdrop, Sheldon Adelson launched *IH* in July 2007. Given the long-standing relationship between conservative Adelson and Benjamin Netanyahu, then opposition leader and former prime minister, critics raised concerns that the new daily would be used as a vehicle for Netanyahu to broaden his and the Likud party's public appeal as well as that of the right-wing bloc, more generally. Contesting these concerns, incoming editor Amos Regev announced that while *IH* describes itself as a "patriotic newspaper," it also "has only one agenda: to tell the truth."

Key to the marketing strategy of *IH* was its decision to hand out the daily newspaper at no cost, even as the format of *IH* was comparable to standard dailies such as its competitors *Yediot* and *Maariv*. Little was said about its business model, but the public line pronounced by the editor of *IH* was that over time, as the newspaper grew in market share, it would become profitable through advertising revenue. Starting with an initial distribution of 250,000 copies, *IH* quickly caught the public's attention, in part because of the visible presence of its "army" of delivery personnel, dressed in red overalls, handing out the free newspaper in shopping malls, large intersections, and bus and train stations.

With the rise in *IH* circulation—by the end of 2008 *IH* had reached 20% national exposure (fig. 1), surpassing *Maariv* as the second most read newspaper in the country—other newspaper outlets soon called foul. Specifically, *IH* was accused of violating Israel's antitrust and campaign finance laws. Nonetheless, and owing much to the support of the Israeli political right, the newspaper continued to operate without disruption and to grow in circulation. Soon it began widening its geographical spread to cover new towns and locales further out from its initial delivery routes. By late 2010, *IH* had equaled the market exposure rate of the long-dominant *Yediot* and has since established itself as the most widely read newspaper in the country. By 2015, it boasted an impressive 40% exposure rate.

Importantly, *IH*'s emphasis on a format with a mainstream appeal and relatively high-quality content, combined with it being circulated for free, was central for the newspaper's ability to reach a vast and ideologically diverse audience. As figure 2 shows, readership of *IH* is, as expected, highest among right-leaning voters: 77% of respondents on the right report reading the newspaper at least once or twice a week, while 41% report reading it more frequently. Among centrist voters, 70% report reading *IH* at least once a week, and 33% multiple times a week. Consistent with our theoretical framework, even left-leaning individuals frequently read the newspaper: 55% of left-leaning voters read the newspaper at

6. The market share of *Yediot Ahronot* and *Maariv* in the first half of 2007, just prior to *Israel Hayom's* launch was 40% and 18%, respectively.

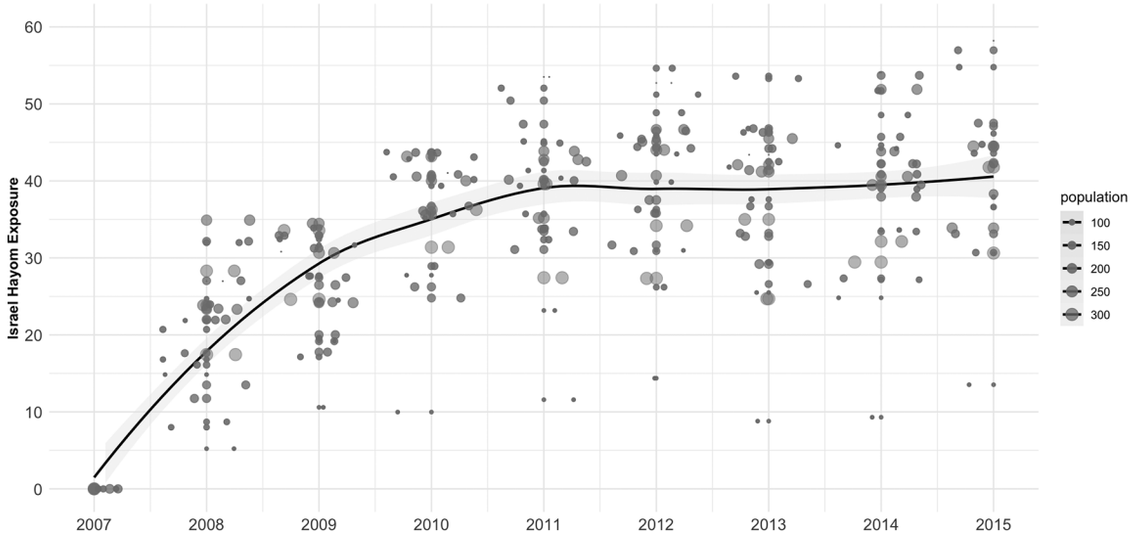

Figure 1. *Israel Hayom* readership over time. Share of Jewish adult population that reads *IH*, at least several times a week. The line represents *lowess* fit, weighted by media markets' population (in 1,000). Source: Kantar Media.

least once a week, and 19% read it at least several times a week.[7] In sum, many Israelis who are not already supporters of the right bloc are routinely exposed to *IH*.

Since its inception, *IH* was criticized for exhibiting a right-wing slant and for parroting the Likud's talking points. Indeed, evidence suggests that Netanyahu's office frequently advised the newspaper's chief editor in selecting the front-page headlines and images.[8]

The importance of *IH* to Netanyahu was made evident when he decided in December 2014 to disperse the Knesset and call for a snap election, two years ahead of schedule. This unprecedented act was taken as a means to undermine a legislative move that, had it passed, would have severely harmed *IH*. In particular, the proposed legislation required all nationwide newspapers to charge a minimum fee, thus undermining *IH*'s marketing model.[9] Netanyahu emerged victorious from the March 2015 elections, with the Likud garnering 30 (out of 120) seats in parliament and the right bloc forming a robust coalition. After his reelection, Netanyahu forced all parties joining his coalition to commit to only support media-related legislation that the Communications Minister sponsors. Tellingly, Netanyahu appointed himself to serve (also) as the Communications Minister and killed the bill.

A final twist in the tale came to light in January 2017. As part of a police investigation on an unrelated matter, the police uncovered recordings from meetings held before the 2015 elections, in which Netanyahu is heard discussing with Arnon Mozes, the owner and managing editor of *Yediot Ahronot*, a possible deal: Prime Minister Netanyahu would dissuade *IH*'s owner from publishing a special weekend edition, a particularly lucrative source of revenue. In return, Mozes promised to provide Netanyahu with supportive coverage and vowed to "ensure that you remain prime minister" (*Haaretz* 2017b). These conversations form the basis of Netanyahu's recent indictment.

Whether a newspaper has the power to influence electoral outcomes in the way Mozes suggested, even in the age of social media and cable news, is an open question with broad implications. To begin addressing the question, we first explore right-wing bias in *IH*'s reporting, before examining whether such reporting influenced voting behavior in Israel.

IH'S POLITICAL COVERAGE

To what extent was *IH*'s news coverage tilted to the right, and how strongly did it favor Netanyahu and the Likud? Political bias can take a number of forms. A news outlet can be selective in what it covers (issue bias), what aspects of the issues it chooses to include (facts bias), and how facts are presented (framing bias). The news coverage of *IH* is commonly described as slanted in favor of the right, yet these assertions

7. For a more direct test of our theoretical assumption of a price-ideology trade-off, at least in the Israeli context, see analysis in app. sec. D.

8. Call logs between Netanyahu and *IH*'s owner and chief editor reveal that between 2012 and 2015, Netanyahu spoke an average 0.75 and 1.5 times a week with the two, respectively. Prior to the 2013 election, Netanyahu and *IH*'s editor spoke 15 times in 19 days. Many of these calls were in the hour before the next day's front-page headlines were finalized. See https://bit.ly/2TCWy1t.

9. The legislation stipulated that newspapers will be required to charge at least 75% of the price of the cheapest newspaper among the four newspapers with the largest circulation. Netanyahu's phone call logs reveal that in the evening after the vote, Netanyahu spoke with *IH*'s owner three times. See https://bit.ly/2VZYWku.

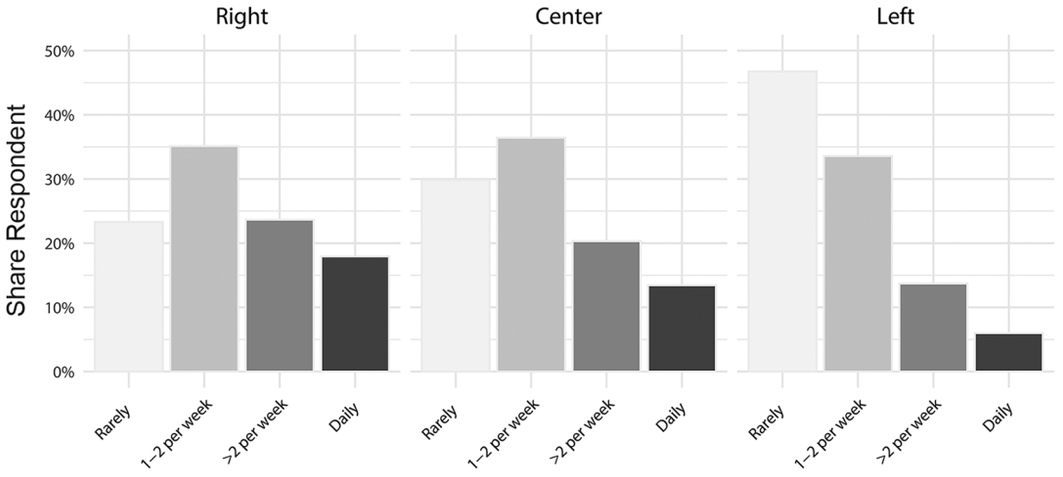

Figure 2. Consumers' ideology and *Israel Hayom* readership. Ideology is measured on a 7-point right-left scale that has been collapsed into three categories: Right (1–3), Center (4), and Left (5–7 on the scale). *Israel Hayom* readership is measured on a 4-point scale with "Never" and "Rarely" combined. Source: A 2016 survey with a national representative sample ($N = 2,438$).

are typically impressionistic and anecdotal. In this section, we quantify the ideological slant of *IH*. We show that the newspaper is more right leaning than its main centrist competitor and that such slant has been increasing over time. We also show that the three forms of bias are all present and prominent in *IH*, which makes it much harder for consumers—even those who are aware of its political agenda—to fully discount its bias.

To quantify *IH*'s slant, we conducted an automated text analysis of the newspaper since the day of its inception and compared it to the coverage in *Yediot*, commonly regarded as the most centrist mainstream media outlet in Israel. We downloaded 2,339 issues from *IH*'s archive starting from the first issue (July 2007) up until the end of 2015,[10] as well as 444 randomly sampled *Yediot* issues that were published in the same period.[11] We focus on issues that were published on the same day, which allows for a cleaner comparison, as events that were driving reporting are held constant. We first examine only the front pages of each issue (cover page and the first spread), and then the coverage in the news-related pages (approximately the first 15 pages, excluding the front pages), as well as op-eds.

Right-wing slant

We measure slant in *Israel Hayom* and *Yediot* by examining the extent to which the two newspapers used words and phrases that are associated with the political right. To detect right-leaning (and in comparison, left-leaning) language, we used the text of party platforms from elections taking place between 2003 and 2013 as a benchmark.[12] Following Gentzkow and Shapiro (2010), we identified partisan phrases in each newspaper and calculated each issue's overall slant by averaging the slant of its words. Thus, newspaper issues that used more right-leaning words received a higher score. To make interpretation easier, we normalized the slant score to range between 0 and 1. In appendix section B, we describe our method and measurement in more detail.

Figure 3*A* shows the average right-wing slant in the different sections of these newspapers. If no media slant existed, we would expect to see similar levels of right-wing language in both outlets. Yet as the figure makes clear, right-wing slant in *IH* was systematically higher than in *Yediot*—a pattern that is evident in all three sections of the newspaper. We also find that the difference in slant is largest in the front pages.[13] When examining the words used in each issue, we find that the newspapers discuss similar issues, but with different phrases. For example, when discussing Jewish settlements in the West Bank, *IH* tends to use the term "Judea and Samaria," while *Yediot* uses "Settlements" instead; when reporting on immigration, *IH* uses the term "infiltrator" more frequently, while *Yediot* tends to use "asylum seeker" instead.[14]

10. The archive was accessed via https://bit.ly/2ZMA53e.

11. These were randomly sampled once a week between July 4, 2007, and December 28, 2016.

12. We use party platforms from 2003 to 2013, downloaded from the Israel Democracy Institute's website at https://bit.ly/2rTpYgL, excluding centrist parties to allow for an easier detection of ideological content.

13. See table SI-4 for results in tabular form.

14. See app. sec. B.3 for more details.

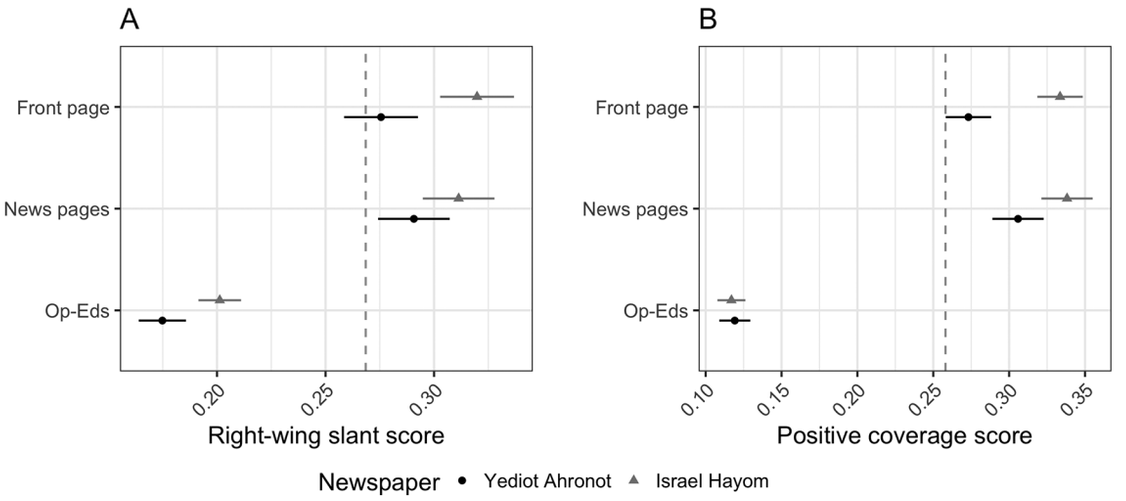

Figure 3. Right-wing slant and positive coverage of the Likud and Netanyahu in *Israel Hayom* and *Yediot Ahronot*. The figure presents predicted values, along with 95% confidence intervals, from linear regressions of right-wing slant (*A*) and of positive coverage (*B*) on a newspaper indicator (*IH*, *Yediot*), calculated for the front pages for each newspaper, the rest of the news section, and the op-eds. Vertical dashed lines are the average values across all sections and issues.

In figure 4, we examine how slant varied over time. Figure 4*A* shows the average right-wing slant in the front pages. While in earlier time periods the frequency of right-wing content in *IH* and *Yediot* was largely similar, starting in 2010, the front pages of *IH* began to display significantly higher levels of right-leaning content. By 2015, the average right-wing slant in *IH* was over 27% higher than in *Yediot*. This difference is greater than the baseline difference in slant between right and left party platforms, which is 22%.[15] Figure 4*B* shows that this difference is not as present in the rest of the news pages. These findings highlight that the location of ideological slant matters: while overall news coverage is broadly similar, right-wing slant in *IH* tends to be stronger in the front pages (and also in the main headlines, as we also show in app. fig. SI-6).

Positive coverage of Netanyahu and the Likud

Unlike majoritarian electoral systems, Israel's proportional representation system allows it to separate between ideological and partisan bias. We thus turn to examine possible differences between the two newspapers in the coverage of Netanyahu and the Likud, as distinct from right-leaning coverage per se. Drawing on a corpus of positive coverage paragraphs extracted from a random sample of these newspapers,[16] we estimated the extent to which the two newspapers described Netanyahu and the Likud positively.[17] Figure 3*B* shows the average level of positive coverage in the front pages, the rest of the news pages, as well as the op-eds. As with right-wing slant, we find that positive coverage is higher in *IH* than in *Yediot* in the front pages as well as the news sections. We do not find a difference in positive coverage in the op-eds.[18] Interestingly, our analysis shows that op-eds have overall much lower levels of right-wing slant and positive coverage (see bottom rows in fig. 3), which illustrates how slant can vary across different parts of the newspaper.

Issue bias

To examine whether *IH* tended to emphasize different issues than *Yediot*, we analyzed the content of each newspaper's front pages with a simple structural topic model.[19] We find that the editors of *IH* tended to emphasize security-related threats, which have been shown to drive voting for the right in Israel (Getmansky and Zeitzoff 2014), while the editors of *Yediot* were more likely to highlight issues related to the economy (fig. SI-5). We also examined whether *IH*'s choice of headlines and front page pictures reflected a certain ideological bent. We find systematic right-wing slant in the visual content of the newspaper's front pages (see app. sec. B.5). Taken together, our findings indicate clearly that the coverage of *IH* was consistently more favorable to the right, and

15. See table SI-3 for full tabular results.

16. Research assistants identified as reflecting positive coverage of Netanyahu, his family, and the Likud party. They coded 208 *IH* and *Yediot* issues, in which they identified 136 paragraphs conveying positive coverage in *IH* and 121 paragraphs conveying positive coverage in *Yediot*.

17. We created a coverage score that sums the frequency of phrases used to described Netanyahu and the Likud positively in each issue. This score ranges between 0 and 1, where 1 reflects more positive coverage.

18. See table SI-4 for a tabular version of these results.

19. Appendix sec. B.4 reports the details.

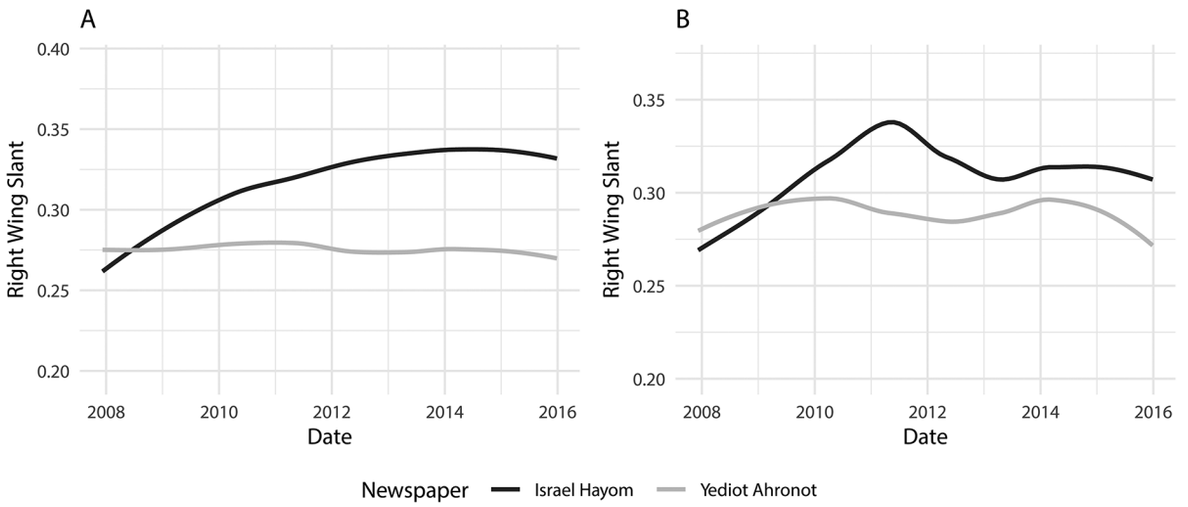

Figure 4. Right-wing slant over time. The figure presents trends in right-wing slant in *IH* and *Yediot* calculated from the frequency of partisan phrases in each newspaper issue published between 2008 and 2015. Panel *A* shows slant in the first three pages. Panel *B* shows slant in the news pages (excluding the front pages).

specifically to Netanyahu and the Likud, compared to the coverage in *Yediot*, its chief competitor.

DATA AND EMPIRICAL STRATEGY

Did the slanted right-wing coverage of *IH* affect voting behavior? Israel has a country-wide proportional representation electoral system, in which citizens cast votes for a preferred (closed list) party, not candidates. To form a government, the candidate for prime minister must build a coalition of parties that obtains the support of a majority of 120 Knesset members. Thus, the relative size of the ideological "blocs" plays a key role in determining who can form a coalition. As Israel's electorate is split between right and center-left blocs, voting within blocs may be strategic while across them it is not. We therefore focus our analysis on the effect of *IH* exposure on the share of votes that the right bloc obtained.[20]

We calculate each party's vote share at the locality level from public files published by the Israel's National Election Commission.[21] Our measure of the right bloc's share includes all votes for the Likud (Unity), Bayit Yehudi (Jewish Home), Israel Beytenu (Israel Our Home), Moledet (Homeland), Tzomet (Crossroads), and Ihud Leumi (National Unity) parties.[22] We also examine the effect of the newspaper's coverage on the vote share of the Likud party. During the period we study, the vote share of the right bloc was at its peak in 2003 (38%), at the height of the second Intifada, and at its lowest mark (24%) in 2009, when Ariel Sharon broke away from the Likud to form the centrist and short-lived party Kadima.

Newspaper circulation and readership data are not publicly available in Israel. We thus purchased proprietary data on media exposure—that is, readership, not circulation—from Kantar Media, a marketing firm. Readership estimates are based on representative phone-based surveys that Kantar Media conducts every six months. Kantar disaggregates the country into media markets of the size of about 150,000 adult residents (fig. SI-1, right panel).[23] Kantar's biannual figures are widely used as the industry standard for media exposure and are the preeminent metric for pricing of media advertising space in Israel.

Two limitations of the data should be noted. First, Arab Israelis, who account for one-fifth of the population, consume mostly Arabic-speaking media outlets. These outlets are tracked using a different media poll and are thus not part of the analysis. Second, Kantar only shares media exposure information for specific media markets in periods when its surveys have samples above a minimal threshold. Our data thus include complete media exposure information that covers the entire period for only 25 of Israel's 29 media markets. We deal with the relatively small sample size in two

20. See Berrebi and Klor (2008) and Getmansky and Zeitzoff (2014) for a similar approach.

21. Data can be accessed on the government website: https://www.bechirot.gov.il/.

22. Ultra-orthodox parties have not been historically an integral part of the right bloc (at least not until 2019) but, rather, "kingmakers" in the sense that they could potentially join any bloc in forming a government.

23. Kantar's estimates are based on samples that range between about 100 and 300 respondents per media market. While Kantar reports the sample size it uses to estimate exposure estimates for different outlets by media market, it does not share detailed methodological information (e.g., response rates).

ways. First, following Cameron, Gelbach, and Miller (2008), in all regressions we use bootstrapped standard errors clustered at the media market level. Second, we use spatial merging to assign each locality the exposure estimate of the media market in which it belongs (fig. SI-1, left panel). This likely introduces some measurement error, since the assigned value cannot account for potential heterogeneity in newspaper exposure within media markets, down-biasing estimates at the locality level. Reassuringly, aggregating election results from the locality to the media market and running the analysis at that level produces equivalent results, as reported below.

Bivariate relationship over time

We first explore the bivariate relationship between *IH* exposure and electoral support for the right bloc using media markets as the unit of analysis. Figure 5, panels *A* and *C*, shows the relationship between support for the right in various time periods and *IH* exposure in the six months preceding the 2013 and 2015 elections. The light gray line shows the mean vote share for the right bloc in the four elections preceding *IH*'s launch (1996, 1999, 2003, 2006), and the darker gray line shows the right bloc's vote share in 2006, that is, the last election before the launch of *IH*. Notably, these two lines show a slightly negative relationship: areas with higher exposure to *Israel Hayom* in both 2013 and 2015 were somewhat less supportive of the right before *IH* launched.[24] However, this relationship became positive after the market entry of *IH*, as can be seen in the black line in figure 5*A* and 5*C*. In other words, after the launch of *IH*, areas with higher exposure to *IH* voted for the right at a higher share.

Figure 5, panels *B* and *D*, illustrates this shift more clearly. The *y*-axis of each panel presents the difference in support for the right bloc between the election of interest and the mean of the four elections in the pre-*IH* period (1996–2006). Figure 5*B* (fig. 5*D*) presents the change between the 2013 (2015) and the four pre-*IH* elections. As the figure shows, there seems to be a positive relationship between *IH* exposure and the change in the vote for the right bloc, a pattern that we test more formally below.

Estimation strategy

To test the electoral implications of *IH* exposure, we employ several different approaches. Our results are consistent across empirical strategies, increasing our confidence that the positive relationship we identify is causal.

Our first approach is to estimate pooled fixed effects models, as described in equation (1):

$$y_{it} = \alpha_i + \gamma_t + \tau IH_{it} + \beta X_{it} + \epsilon_{it}, \quad (1)$$

where y_{it} is the vote share for the right bloc (or any of the main political parties) in media market or locality i in election t, α_i captures unit fixed effects, and γ_t captures idiosyncratic election-year shocks; the key regressor of interest is IH_{it} which denotes the geographic unit's i exposure to *Israel Hayom* in levels in each election period (with the value of *IH* set to zero for pre-2007 elections). While unit fixed effects models parse out time-invariant factors, a possible concern is that the relationship between locality characteristics and voting behavior changes over time due to factors unrelated to the treatment (e.g., the Likud's fracture over Sharon's disengagement plan or a policy realignment following the Hamas's takeover of Gaza). We address this concern by flexibly controlling for unit characteristics (X_{it}) from before *IH*'s launch—measured in 2007 for the 2008 census—commonly associated with voting patterns in Israel.[25] An additional threat to validity is that *Israel Hayom* specifically targeted areas where it could maximize influence rather than circulation. We address this concern by controlling, in some models, not only for the right bloc's base level of support pre-*IH* launch but also to trend in voting to the right over time.

One limitation of the pooled fixed effects analysis is that it masks possible variation in the effect of *IH* on voting behavior over time. Our second approach is therefore to estimate three different two-period first difference (FD) regressions, one for each post-*IH* launch, $t \in [2009, 2013, 2015]$. Specifically, we estimate

$$\Delta y_i = \tau \Delta IH_i + \beta X_i + \epsilon_i, \quad (2)$$

where Δy_i is the change in vote share for a given political bloc or party between election year t and the mean vote share in the prelaunch period t_o: ΔIH_i is *IH* exposure in the six months before each of the three postlaunch elections (since the prelaunch exposure is zero); and X_i is again a vector of locality characteristics from before the *IH* launch, including (in some specifications) the value of the dependent variable in the first baseline period.

The fixed effects and FD models are informative, especially since the parallel trend assumption is met in our case. However, they cannot fully account for the possibility that the choice of Israelis to consume *IH* is correlated with a changing political landscape that predisposes some areas to

24. More information on parallel trends is provided in app. sec. E.2.

25. These include log adult population, share of Jewish population, log distance to Tel Aviv, share of European descendants, share of Asian descendants, share with high school matriculation, and share in each of the following age brackets: 18–29, 30–49, 50–65, and above 66. These characteristics are interacted with election-year indicators.

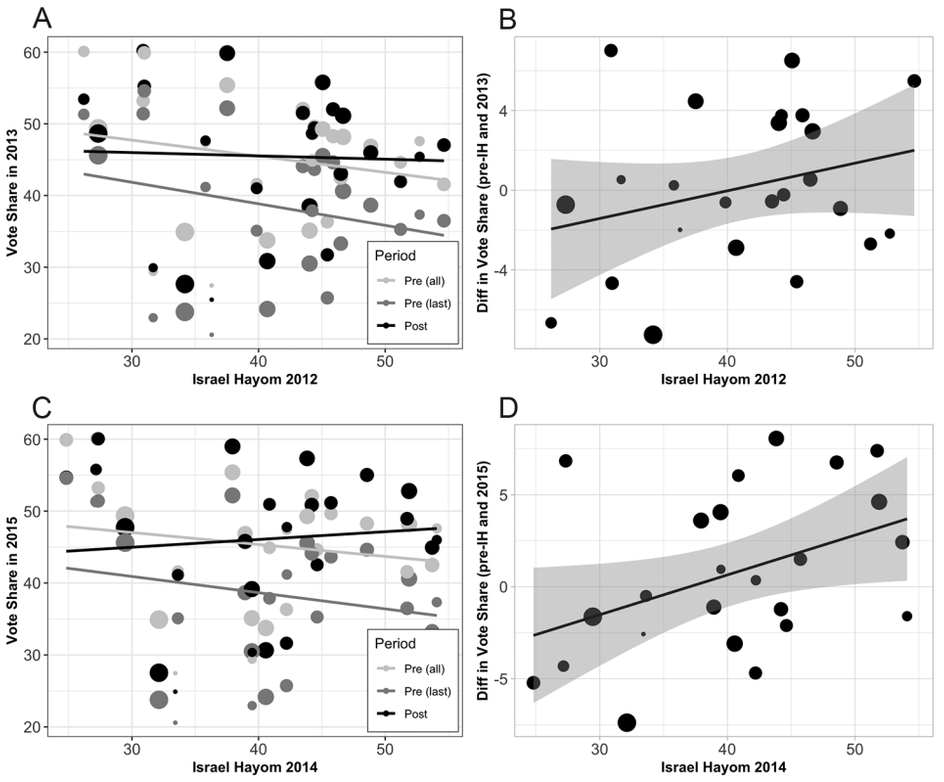

Figure 5. Change in the right bloc's vote share: pre- versus postlaunch of *IH*. Panels *A* and *B* show the right bloc's vote share as a function of exposure to *IH* in the six months preceding the 2013 (*A*) and 2015 (*B*) elections. Panels *C* and *D* show exposure to *IH* prior to the 2013 election (on the *x*-axis) and the difference between the right-bloc vote share in the 2013 elections and the four pre-2007 elections (*y*-axis). In all panels the slopes capture the bivariate relationship using a linear fit, weighted by the size of the media markets' population.

increasingly vote for right-wing parties.[26] To address this concern, we estimate localities' *IH* exposure using an instrumental variable (IV) design that is increasingly common in media effect studies. Specifically, we instrument exposure to *IH* (ΔIH) using data on readership of *Yediot*, just prior to *IH*'s entry into the market. The idea—building on Kearney and Levine (2015), who use past MTV viewership patterns to estimate consumption of future content—is that some Israelis who already read mainstream dailies switched to *IH* because of its similarity to the product that they were used to consume in terms of format and overall quality, as well as because it was widely available and handed out for free.

A key assumption of our IV strategy is that there is a latent dimension underlying the inclination to read the mainstream dailies. This inclination reflects a number of individual characteristics: some degree of interest in current events; willingness and ability to free up time to dedicate to reading about the news; a preference for (or tolerance of) news coverage that is aimed at a broad audience—less in-depth than highbrow papers (e.g., *Haaretz*) but somewhat more sophisticated than typical tabloids—and an ideological orientation within the bounds of the Israeli mainstream. Given that *IH* adopted the format of its chief mainstream competitor, it had a strong appeal to many Israelis. We therefore expect that the level of readership of *Yediot* in the period preceding the launch of *IH* will be a strong predictor of *IH* readership after its launch.

Indeed, the first-stage estimation of our instrument, that is, the relationship between *Yediot* readership in the first half of 2007 and subsequent exposure rates to *IH*, is rather strong: in all election years after 2007 (and, in particular, in 2013 and 2015), the *F*-statistic is above the threshold of 10 (table SI-5).[27]

Next, we explore the instrument's conditional exogeneity assumption by regressing *Yediot* readership in 2007 on our list of locality-level covariates (fig. SI-15). We find that observables account for a large share of the variation in *Yediot* readership in 2007, just prior to *IH*'s launch ($R^2 = 0.67$). This reduces the concern that *Yediot* readership is associated with unobservables that also have a strong empirical relationship with right-bloc voting, after accounting for covariates.

26. This threat of identification is not borne out in our data, as we demonstrate in app. sec. E.1.

27. Further evidence of the instrument's strength is provided in app. sec. E.3.

Table 1. Instrument Exogeneity: IV and Locality Voting Pre-2007

	1996		1999		2003		2006	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Yediot readership 2007	−.065	.245	−.146	.022	.284	.350	−.068	.186
	(.220)	(.262)	(.195)	(.224)	(.252)	(.259)	(.248)	(.243)
Constant	41.144***	18.180	32.115***	20.464	31.925***	−21.927	30.997***	−2.484
	(9.174)	(28.849)	(8.185)	(20.274)	(10.553)	(32.743)	(10.514)	(32.375)
Covariates	No	Yes	No	Yes	No	Yes	No	Yes
R^2	.00	.30	.01	.30	.03	.37	.00	.40
N	931	931	931	931	931	931	931	931

Note. In this table we regress right-bloc vote share on *Yediot* newspaper readership in the first half of 2007 (our instrument) in all four elections prior to the launch of *IH*. We weight observations by locality adult population and cluster standard errors at the media market level.
* $p < .1$.
** $p < .05$.
*** $p < .01$.

Second, we test whether our instrument explains voting for the right bloc in the period preceding the launch of *IH*. A positive relationship would suggest that political orientations are factored in the choice of *Yediot* readership, rendering the exogeneity assumption improbable. Table 1 analyzes voting in the four elections for which we have data prior to the launch of *Israel Hayom*. Consistent with the notion that *Yediot* is overall a centrist media outlet, we find that *Yediot* readership in 2007 does not explain voting to the right in 1996–2006. In fact, in the bivariate regressions (table 1, odd columns), *Yediot* 2007 readership explains practically zero of the variation in right-bloc vote share (in terms of R^2), and except for 2003, the slope is both small and negative.

RESULTS: *ISRAEL HAYOM* AND VOTING

In table 2, we report results from the fixed effects models. Two findings jump out. First, across model specifications and unit of analysis (locality and media markets), the effect of *IH* on vote share for the right bloc and the Likud is positive, significant, and rather stable in magnitude. Substantively, focusing on the most demanding model at the locality level (panel A, col. 3), where we control flexibly for both pretreatment covariates and right-bloc vote share at $t = 0$, we find that a 1% increase in *IH* readership is associated with 0.13 percentage points (pp) increase in the vote share of the right bloc. Moving from the 25th percentile (22% *IH* exposure) to the 75th percentile (43.8% *IH* exposure) in levels of exposure is associated with a 2.83 pp increase in right-bloc vote share. Employing the method developed by DellaVigna and Kaplan (2007), these figures indicate a persuasion effect of 7.9%, a magnitude that is comparable to the median effect size established in recent studies of media effects on voting.[28] Furthermore, comparing columns 1–5 (right-bloc vote share) to columns 6–10 (Likud party) indicates that the increase in the vote share of the right bloc is primarily driven by increased voting for Netanyahu's Likud party.

In order to disaggregate findings by election year, we next report results in table 3 for the two-period FD estimations (eq. [2]). In panels A–B, the dependent variable is change in vote share for the right bloc and in panels C–D for the Likud party. The table highlights two key results. First, while the FD does not show evidence of an *IH* effect on voting in 2009, it shows a positive and significant effect on voting for the right bloc in 2013 and 2015 (panels A and B, cols. 3–6). Second, when comparing the coefficients for the right bloc (panels A–B) with that of the Likud (panels C–D), we find (again) that a large portion of the increase in vote to the right has been accrued by the Likud party.

Moving to the IV models (table 4), we again find a positive effect of *IH* readership on voting for the right in the 2013 and 2015 elections. A percentage point increase in exposure to *IH* (due to prior *Yediot* readership) is associated with a 0.22 percentage point increase in the right bloc's vote share in 2013 when adjusting both for pretreatment covariates and base (1996) level of right-bloc support (panel A, col. 4). Holding all else equal, a shift from a locality in the bottom quartile of *IH* exposure to one at the top quartile is associated with an increase of 2.5 percentage points in support for the

28. In their review article, DellaVigna and Gentzkow (2010) report an average persuasion rate of 10.1% and a median rate of 11.5%. See app. sec. H for more details on the method of calculating persuasion rates.

Table 2. Fixed Effects Models.

	Right Bloc					Likud				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
A. Locality level:										
IH exposure	.188**	.126**	.130**	.182***	.127***	.172***	.139**	.126**	.382***	.126***
	(.076)	(.064)	(.063)	(.033)	(.016)	(.063)	(.067)	(.063)	(.018)	(.032)
Constant	33.767***	84.177**	80.320**	36.669***	89.342***	20.647***	55.773**	57.469**	28.177***	44.572***
	(2.128)	(34.274)	(33.263)	(.837)	(15.399)	(1.504)	(26.194)	(25.773)	(.754)	(5.364)
Covariates × year	No	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes
Base DV × year	No	No	Yes	No	No	No	No	Yes	No	No
Year effects	Fixed	Fixed	Fixed	Trend	Trend	Fixed	Fixed	Fixed	Trend	Trend
R^2	.91	.95	.95	.73	.95	.88	.93	.95	.54	.93
N	6,517	6,517	6,517	6,517	6,517	6,517	6,517	6,517	6,517	6,517
B. Media market level:										
IH exposure	.122**	.114*	.126*	.155***	.094	.166***	.141*	.129*	.358***	.137*
	(.055)	(.060)	(.062)	(.031)	(.057)	(.057)	(.077)	(.072)	(.021)	(.077)
Constant	44.137***	493.014*	435.446*	823.374**	159.258	20.561***	145.953	126.673	1510.390***	2223.603
	(.895)	(239.672)	(238.360)	(310.985)	(2634.485)	(.928)	(170.142)	(171.315)	(137.757)	(2348.999)
Covariates × year	No	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes
Base DV × year	No	No	Yes	No	No	No	No	Yes	No	No
Year effects	Fixed	Fixed	Fixed	Trend	Trend	Fixed	Fixed	Fixed	Trend	Trend
R^2	.93	.98	.98	.72	.98	.92	.97	.97	.37	.97
s*N*	175	175	175	175	175	175	175	175	175	175

Note. In cols. 1–5, the dependent variable (DV) is the change in vote share of the right bloc, and in cols. 6–10, it is the change in the Likud's vote share. In panel A, the unit of analysis is the locality, and in panel B it is the media market. We weight observations by adult population and cluster bootstrapped standard errors (replicated 250 times) at the media market level. Covariates refers to controls for the size of the adult population (logged), the share of the population that is Jewish, of European descent, of Asian descent, with high school matriculation, and the share of each age bracket: 18–29, 30–49, 50–65, 66+. In cols. 3 and 8, we further control flexibly for the vote share of the right bloc and the Likud in 1996, the first election year in the sample. In cols. 4, 5, 9, and 10 we include a control for the vote trend of the DV over time.

* $p < .1$.

** $p < .05$.

*** $p < .01$.

Table 3. Two-Period First Difference Models

	2009		2013		2015	
	(1)	(2)	(3)	(4)	(5)	(6)
A. Locality level:						
IH exposure	−.055	−.050	.295***	.148	.336***	.242**
	(.153)	(.118)	(.085)	(.093)	(.099)	(.116)
Constant	3.286	−28.999	−11.671***	−25.164	−12.538***	−43.453
	(4.244)	(26.324)	(4.116)	(20.338)	(4.766)	(30.671)
Covariates	No	Yes	No	Yes	No	Yes
Base DV	Yes	Yes	Yes	Yes	Yes	Yes
R^2	.14	.54	.21	.49	.21	.47
N	931	931	931	931	931	931
B. Media market level:						
IH exposure	.071	−.003	.269***	.166**	.337***	.256***
	(.085)	(.054)	(.045)	(.078)	(.043)	(.050)
Constant	8.648*	5.279	−3.043	−7.325	−4.468	−2.878
	(4.868)	(11.450)	(3.133)	(11.004)	(2.796)	(7.729)
Covariates	No	Yes	No	Yes	No	Yes
Base DV	Yes	Yes	Yes	Yes	Yes	Yes
R^2	.06	.66	.61	.72	.71	.86
N	25	25	25	25	25	25
C. Locality level:						
IH exposure	−.041	.016	.263**	.125	.109	.182**
	(.055)	(.059)	(.108)	(.108)	(.074)	(.087)
Constant	3.093*	−6.327	−7.041	−27.036	−3.502	−31.540
	(1.746)	(7.718)	(4.815)	(26.227)	(3.599)	(22.492)
Covariates	No	Yes	No	Yes	No	Yes
Base DV	Yes	Yes	Yes	Yes	Yes	Yes
R^2	.01	.21	.13	.59	.10	.37
N	931	931	931	931	931	931
D. Media market level:						
IH exposure	.013	.038	.337***	.269	.181**	.299**
	(.043)	(.044)	(.104)	(.165)	(.079)	(.123)
Constant	−.727	5.654	−7.751	11.289	−6.249*	7.066
	(2.504)	(12.439)	(4.538)	(23.003)	(3.233)	(18.437)
Covariates	No	Yes	No	Yes	No	Yes
Base DV	Yes	Yes	Yes	Yes	Yes	Yes
R^2	.63	.68	.42	.63	.43	.59
N	25	25	25	25	25	25

Note. In panels A–B, the dependent variable (DV) is the change in vote share of the right bloc, and in panels C–D, the DV is the change in the Likud's vote share. In panels A and C, the unit of analysis is the locality level, and in panels B and D it is the media market. We weight observations by adult population and cluster bootstrapped standard errors (replicated 250 times) at the media market level. See note to table 2 for the list of covariates for which we control.

* $p < .1$.

** $p < .05$.

*** $p < .01$.

right bloc. We find a similar effect size in 2015 (table 4, panels A and B, col. 6).

One difference between the two-period FD and the IV results pertains to the right-bloc and Likud party vote share in the 2009 elections. Recall that in 2008, *IH* circulation was limited to 250,000 copies due to the fact that the newspaper did not yet set up an elaborate national distribution system. This meant that *IH* copies were distributed disproportionally in central locations, where the right bloc underperforms relative to the periphery where *IH* circulation was limited

Table 4. Two-Period First Difference (IV) Models

	2009		2013		2015	
	(1)	(2)	(3)	(4)	(5)	(6)
A. Locality level:						
IH exposure	.606***	.656	.352***	.220**	.413***	.233*
	(.208)	(.837)	(.069)	(.101)	(.105)	(.130)
Constant	−14.116**	−21.380	−13.880***	−26.790	−15.420***	−42.949
	(6.032)	(30.090)	(3.221)	(18.972)	(4.484)	(31.497)
Covariates	No	Yes	No	Yes	No	Yes
Base DV	Yes	Yes	Yes	Yes	Yes	Yes
N	931	931	931	931	931	931
B. Media market level:						
IH exposure	.627***	.908	.347***	.316***	.418***	.289***
	(.180)	(1.262)	(.045)	(.121)	(.040)	(.069)
Constant	−12.986	62.809	−6.758***	−9.272	−8.124***	−2.999
	(10.223)	(86.500)	(2.552)	(10.296)	(2.683)	(6.224)
Covariates	No	Yes	No	Yes	No	Yes
Base DV	Yes	Yes	Yes	Yes	Yes	Yes
N	25	25	25	25	25	25
C. Locality level:						
IH exposure	−.078	.049	.327***	.260**	.074	.237**
	(.117)	(.360)	(.072)	(.108)	(.085)	(.118)
Constant	3.873	−5.879	−9.157***	−30.206	−2.442	−34.389
	(3.400)	(11.082)	(3.226)	(21.704)	(3.226)	(22.386)
Covariates	No	Yes	No	Yes	No	Yes
Base DV	Yes	Yes	Yes	Yes	Yes	Yes
N	931	931	931	931	931	931
D. Media market level:						
IH exposure	.062	.948	.452***	.626**	.178***	.612**
	(.039)	(1.754)	(.053)	(.247)	(.048)	(.265)
Constant	−1.513	69.800	−9.454***	.782	−6.232**	2.584
	(2.083)	(124.173)	(3.376)	(22.218)	(2.670)	(17.413)
Covariates	No	Yes	No	Yes	No	Yes
Base DV	Yes	Yes	Yes	Yes	Yes	Yes
N	25	25	25	25	25	25

Note. *IH* exposure is instrumented with *Yediot* readership in the first six months of 2007. In panels A–B, the dependent variable (DV) is the change in vote share of the right bloc, and in panels C–D it is the change in the Likud's vote share. We weight observations by adult population and cluster bootstrapped standard errors (replicated 250 times) at the media market level. Panels A and C are at locality level, and panels B and D at the media market level. Covariates include log adult population, share of Jewish population, log distance to Tel Aviv, share of European descendants, share of Asian descendants, share with high school matriculation, and share in each of the following age brackets: 18–29, 30–49, 50–65, and above 66.

* $p < .1$.

** $p < .05$.

*** $p < .01$.

(fig. SI-7). This helps explain the weak negative bivariate relationship in the ordinary least squares (OLS) model with no controls (table 3, panel A, col. 1). By contrast, in the IV model—which is based on residents' reading habits of the mainstream *Yediot* and differencing out the logistical aspect of the newspaper distribution—the sign of the *IH* coefficient in 2009 is positive. Note, however, that when we adjust for covariates, the effect of *IH* on both voting for a right-bloc party (panels A–B, col. 2) and the Likud party (panels C–D, col. 2) is noisy and not statistically significant in 2009.[29]

29. In addition to limited distribution, other factors probably contributed to *IH*'s limited effect in 2009. Specifically, as shown in fig. 4, in the

An informative way to assess *IH*'s substantive effect is to multiply the instrumented *IH* coefficient by the magnitude of the variation induced by the instrument.[30] A one-standard-deviation increase in *Yediot* 2007 readership contributes to a 6.61 and 7.70 pp increase in *IH* exposure in 2013 and 2015, respectively. When multiplying by the instrumented *IH* coefficients reported in table 4, the effect on right-bloc vote share is 1.45 pp in 2013 and 1.79 pp in 2015. To translate vote shares to seats, we multiply the estimated increase in the right bloc's vote share by 0.9 (the share of Jews among all voters) and then by 1.2 (since there are 120 Knesset seats). Our estimates suggest that a shift of the instrument value from a standard deviation below its mean to one above the mean contributed about four seats in the post-2007 elections, via its effect on *IH* readership. Given the close nature of political competition in Israel between blocs, these changes are consequential.

Finally, we emphasize that the effects we report in this article are localized. Since we are using spatial variation in *IH* exposure across media markets to study subnational changes in voting, we are not capturing a possible national shift (in levels) in voting patterns induced by *Israel Hayom*. Our estimates should therefore be treated as lower-bound effects of the national impact of the newspaper on electoral outcomes in Israel post-2007.

Robustness

To ensure the robustness of these findings, we test whether our core empirical strategies are sensitive to additional variations in model specification. Together, these robustness checks further substantiate the study's main results. We briefly describe the robustness tests below and refer to the appendix for more details.

Starting with the two-period FD models, we relax the linearity assumption, testing robustness to inverse hyperbolic sine transformation of *IH* exposure (see tables SI-6 and SI-7). We also test robustness to dropping the main ultra-orthodox media market of Bnei Brak, in which *IH* exposure rates are very low due to the strong norm among ultra-orthodox Jews to avoid consuming secular media (tables SI-8 and SI-9). We then examine a specification in which we replace our measure of newspaper exposure (in the year before an election), with the cumulative average exposure to *IH* in the entire period between the elections. The results, presented in tables SI-10 and SI-11, are positive and significant, and in fact larger once accounting for the cumulative effect.

Turning to the IV estimates, in appendix section G we assess potential threats to the assumptions underlying the IV estimates. First, we address potential violations of the exclusion restriction assumption. Such could arise, for example, if *Yediot*, in response to the right-wing slant of *IH*, increased its right slant too. Qualitative evidence, as well as figure 4, indicates that this was not the case.[31] Nonetheless, following Conley, Hansen, and Rossi (2012), we further conduct a formal sensitivity analysis ("union of confidence interval"). We find that the direct effect of the study's instrument (*Yediot* readership) on support for the right needs to be implausibly large to eliminate the effect of the instrumented measure of *IH* exposure (fig. SI-14). Second, we also rule out the possibility that the instrument captures residents' general attentiveness to the news that may move people to the right, simply because newsworthy events in the period could, for example, support a more hawkish world view (table SI-15). We further test the robustness of our results to other possible threats to validity. Specifically, in appendix section F.3 we run a set of spatial regressions to rule out the possibility that results are driven by spatial dependence between neighboring media markets. In sum, we find that our results hold across a wide array of alternative specifications.

The electoral effect of *IH* by party

Our analysis reveals a consistent, positive, and sizable relationship between increased exposure to *Israel Hayom* and support for the right bloc. To gauge the source of the positive composite effect, figure 6 presents the effects of *IH* exposure, using our two-way fixed effects models, on support for the main parties in levels, pooled over elections. Consistent with the results reported in tables 2–4, we find that Netanyahu's Likud party was the main beneficiary—the increase in its vote share drives almost the entire change in voting for the right bloc. The increase in the Likud vote appears to have come in part at the expense of support for Shas, Labor (and what later became Hamachane Hazioni).

MECHANISMS

What explains *IH*'s effect on voting for the right in Israel? Following the extant literature and the framework described in the introduction, we explore two possible mechanisms: turnout and persuasion. Using turnout data, we explore

first year of operation, *IH*'s right slant was much less pronounced than in later years.

30. See Martin and Yurukoglu (2017) for a similar approach.

31. Issues from Yediot were digitized only starting from 2006; hence we are constrained from presenting the trend in earlier years. However, at the time of *IH*'s launch, it was not perceived as a serious player in the newspaper market and certainly not as a threat to the dominance of *Yediot*. It is therefore highly implausible that *Yediot* shifted its coverage rightward prior to, and in anticipation of, *IH*'s launch.

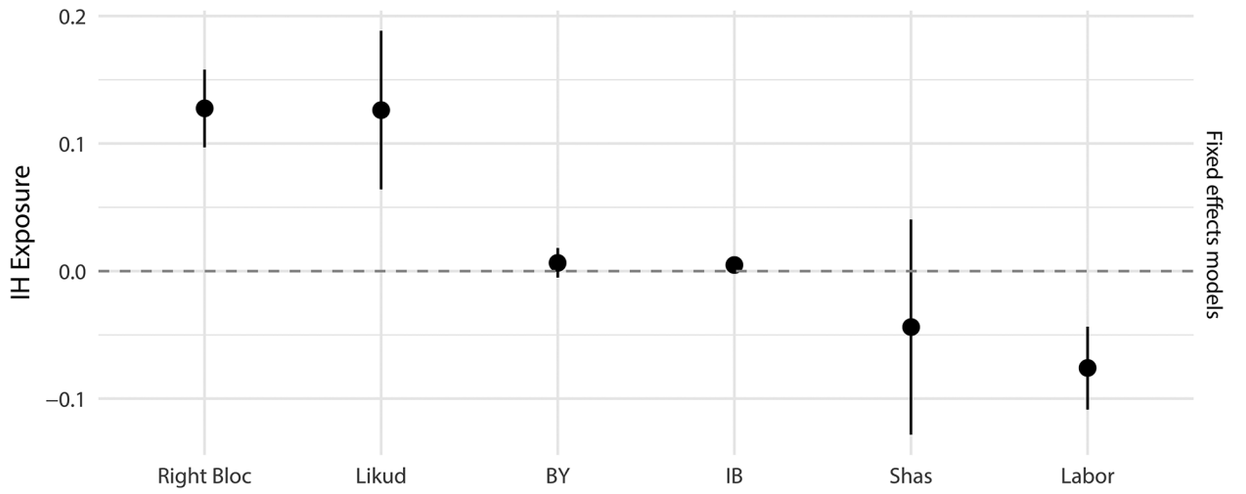

Figure 6. *IH* effect by party. Dependent variable: party vote share. IB stands for Israel Beytenu party; BY stands for the Bayit Yehudi party. Labor stands for Avoda/Ha'Machane Ha'Zioni. Estimates from two-way fixed effects models.

whether *IH* mobilized right-leaning voters. We find no evidence that *IH* affected turnout, which is robust to whether or not we condition *IH* exposure on mean right-bloc vote share prior to 2007 (table SI-17).

To explore the persuasion channel, we use individual-level survey data. Specifically, we use public opinion data from the Israeli National Election Study (INES) to explore whether a higher rate of *IH* readership is associated with increased support for right-wing parties.[32] Using residence information, we assign each respondent the exposure level of her locality's media market. We use this measure as a proxy for *IH* exposure, since INES does not include information on respondents' media consumption. Drawing on data from before (2006) and after (2009) *IH*'s launch, we run the following difference-in-difference model:

$$y_{imt} = IH_{im} + \text{Post}_t + \beta \cdot (IH_{im} \times \text{Post}_t) + \psi X_{imt} + \epsilon_{imt},$$

where y_{imt} is the outcome of interest for individual i in locality m in year t (2006 or 2009); IH_{im} is individual's (proxy) exposure to *IH*; Post is an indicator that equals 1 for the year 2009 and 0 for 2006; and X_{imt} is a vector of individual-level covariates: sex, age, academic degree (binary), economic class (four categories), and religiosity (four categories). In all models, standard errors are clustered at the media market level, and observations are weighted by the number of respondents per locality. The term β is the difference-in-differences between (individuals within) municipalities with varying degree of *IH* penetration, before and after the launch of *IH*.

In table 5, we examine *IH*'s relationship with party identification. Our outcomes of interest are binary measures of whether a given party is the one that the respondent "feels closest to." We find that greater *IH* exposure is associated with increased identification with the Likud, and a decline in support for Kadima, a centrist party that was the main rival of the Likud in the 2009 election. Relatedly, greater exposure to *IH* is also associated with more positive evaluations of Benjamin Netanyahu's qualities as a leader, including assessments of him as "patriotic" and an "effective deal maker" (table SI-18). Importantly, *IH* exposure is also a strong predictor of greater support for hardline policy positions associated with the right in Israel; see table SI-19.

CONCLUSION

Ownership of news outlets by the ultrarich is a growing phenomenon. In this study, we use the case of Sheldon Adelson's *Israel Hayom* to inform our understanding of whether wealthy owners with known ideological leanings can affect electoral outcomes by promoting news outlets with slanted coverage. Contra to some conjectures about a new era of minimal media persuasion effects (Bennett and Iyengar 2008), we find not only strong evidence of slant in various parts of the newspaper but also significant electoral effects on vote share for the right bloc in Israel. While some theoretical models assume that readers can discount (or even push back against) overtly biased media, our results suggest that when

32. INES is not a panel survey; hence our analysis entails comparison of two cross-sections with controls for media market fixed effects. Conclusions about attitude change related to *IH* exposure can therefore be deduced only with respect to exposure at the locality level, which means the analysis is subject to ecological inference limitations.

Table 5. INES: Evaluation of Parties

	Likud (1)	Kadima (2)	Labor (3)	Shas (4)	BY (5)	IB (6)
IH exposure	−.012	.031	.010	−.028	−.014	.011
	(.012)	(.020)	(.016)	(.028)	(.021)	(.014)
Post	.076***	−.184***	−.023	−.035	−.050*	.055***
	(.015)	(.019)	(.018)	(.032)	(.026)	(.014)
IH × Post	.047**	−.024	−.000	−.030	.024	−.015
	(.017)	(.016)	(.019)	(.046)	(.025)	(.020)
Constant	.096	.362***	.088	−.044	.023	.255***
	(.073)	(.067)	(.058)	(.055)	(.041)	(.063)
R^2	.03	.09	.01	.25	.05	.04
N	2,099	2,099	2,099	2,099	2,099	2,099

Note. Difference-in-difference regressions. In all models, we cluster standard errors at the media market area and include weights proportional to the number of survey respondents from each Israeli locality. The dependent variable is series of binary indicators of the political party the respondent feels closest to. BY = Bayit Yehudi party; IB = Israel Beytenu party.

* $p < .10$.

** $p < .05$.

*** $p < .01$.

slant consists of multiple facets, such as issue, facts, and framing bias, many readers do not fully discount the bias.

As our analysis indicates, Adelson's project of influencing Israel's political landscape by introducing a major new news outlet was successful. But does this success imply that ultrawealthy individuals can expect to attain similar results with their news outlet in any political setting? Data from a single case, of course, do not allow us to address this question of generalizability, but the importance of this issue perhaps justifies some degree of speculation. Based on our analysis, we believe that a key aspect of *IH*'s success was the combination of its free distribution and (relatively) high quality. By handing out the paper at no cost and by ensuring that its package looked similar to the leading daily newspaper in the country, *IH* was able to reach a broad audience that includes consumers with different ideological leanings and do so in a short period of time.

If our conjecture is correct, a key scope condition for exerting such an impact would be a large commitment of resources, sizable enough to ensure that it supports the creation of a sufficiently enticing product that can be distributed for free. In addition, there is also the question of the country's size; after all, Israel's population of 9 million is a good deal smaller than most Western democracies, perhaps making *IH*'s influence harder to emulate in other settings. While that is certainly true, one should recall that even in very large countries such as the United States, a local newspaper that influences a swing state (e.g., Wisconsin, 5.8 million; Arizona, 7.3 million; Pennsylvania, 12.8 million) could have an electoral impact that extends well beyond the politics of the state alone. The country's size—in geography and population—while surely a factor to reckon with, does not mean that the *IH* strategy would have no relevance in larger countries.

One unique feature of the Israeli setting, as compared to studies in other contexts, is the country's multiparty, proportional representation system. We show that while the right bloc benefited from the launch of *IH*, the Likud and its leader (Netanyahu) were the main beneficiaries. This suggests that even though promoting a specific party through positive coverage might seem more challenging—as other parties in the same ideological space are competing for the same voters—it is still possible in multiparty contexts. How media slant differs in two-party and multiparty electoral systems is an important question worthy of rigorous examination in future work.

It is perhaps not obvious ex ante why funding a newspaper would be the vehicle of choice for an ultrawealthy individual interested in exerting political influence. Why not choose to spend the money on TV advertising, or on political contributions, rather than funnel the money to a losing media enterprise? While our study cannot definitively answer this question, several considerations should be noted. First, Israel's campaign finance regulations are stringent, restricting Israeli citizens to donations of 2,300 NIS (around US$700) in an election year and prohibiting contributions by noncitizens and corporations. Put differently, ultrawealthy individuals

such as Adelson do not have an easy option to significantly advance their political interests via direct political contributions. Second, there is ample evidence that covert messaging and "organic advertising" embedded in consumed content (e.g., in news coverage) tends to be more persuasive than messaging presented as part of paid advertisement (Tutaj and Van Reijmersdal 2012; see Wojdynski and Evans [2020] for a recent review). Consistent with this logic, if affecting public opinion is the goal, investing in a source of content that could convey one's preferred message—similar to what *IH* allowed Adelson to do—might be a more cost-effective use of one's money than paying to purchase traditional advertising space.

Moreover, the influence of *IH* may extend beyond its direct effect on the readers. It could also stem from the fact that morning programs in both television and radio often follow up on the main newspapers' leading stories. *IH*'s focus on specific issues deemed beneficial to the agenda of the political right—particularly terrorism and the threat posed by Iran—is therefore echoed in other media outlets as well. Measuring *IH*'s full impact on public opinion and voting thus requires looking beyond the localized effects on the newspaper's readership. Additional work, using a different research design, will be better suited to take on this task.

Finally, in assessing the external validity of our findings, one might argue that Israel represents a particularly hard case for a media outlet to exert influence because the country is polarized politically and voters are relatively well informed.[33] It is therefore a setting in which influencing voting behavior is likely to be more difficult than in low-information environments or where polarization is low. On the other hand, Israel may offer an easier setting for a newspaper to exert influence because of the country's small size and its concentrated media market. A newspaper can therefore attain a national audience more easily, particularly if it is handed out for free. Which of these contrasting characteristics has a stronger impact on the newspaper's ability to exert influence is ultimately an empirical question that, we hope, future research will address.

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33. See cross-national analysis of World Values Survey data in Mutz (2006, 49).

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