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#### **RESEARCH ARTICLE**

# News coverage of Confucius Institutes in the pre-Trump era

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#### ABSTRACT

A novel dataset is presented that reveals a general pattern of declining favourability in news stories about Confucius Institutes (Cls) from 2006 through 2015 in six English-speaking countries: the US, the UK, Canada, Australia, India and Kenya. There are significant differences in mean favourability and time trends across countries, however. Decreasing trends in favourability are observed in the US and Canada, in particular, whereas Kenya and India's time trends are nil or possibly increasing. We report empirical models of favourability conditional on GDP per capita, trade with China and the number of CIs across country-year observations. Consistent with Pew polling data, our data reveal an interesting pair of conflicting income effects. High-income countries tend to be more negative and less positive on CIs than lowincome countries overall. Within-country positive shocks to real GDP per capita, however, are positively associated with favourability after cross-country differences in income levels are absorbed by country fixed effects. The number of Cls in a country has mixed effects on the favourability of news coverage about CIs across country-year observations. Despite billions of dollars spent on public diplomacy by the Chinese government, our findings suggest that its return on investment in public diplomacy in the form of CIs may not be as expected.

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# Introduction

This paper presents an analysis of the frequency and *favourability* of newspaper coverage of Confucius Institutes (CIs) across six countries: the US, the UK, Canada, Australia, Kenya and India. News coverage about China in English-speaking countries influences public opinion in those countries, which, in turn, affects policies towards China and therefore has important economic effects. To observe systematic patterns in

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news coverage about China across countries and through time, we focus solely on news stories about one China-related topic in particular: Confucius Institutes (CIs).

Justification for our focus on the six English-speaking countries mentioned above is as follows. The US, the UK, Canada, and Australia are natural choices for inclusion among English-speaking countries based on their economic size (GDP) and relatively large numbers of CIs. In both Kenya and India, English-language news is widely consumed.

The first CI in Africa was established in Nairobi, Kenya, in December 2005. By 2019, it had enrolled more than 15,000 programme participants. At least 68 languages are reportedly spoken by Kenyans. Swahili and English are Kenya's two official languages, however. Although the majority of Kenyans speak Swahili predominantly at home, Kenya's education system and many in its business sector have adopted English as the default mode of communication or lingua franca, in part, reflecting Kenya's history as a former British colony.

We include India because it has the largest English-speaking population<sup>1</sup> in Asia and a colonial history under the British rule. Similar to Kenya, multiple languages are spoken in India. The first CI in India was established at Vellore Institute of Technology in the state of Tamil Nadu in April 2007, followed by Mumbai University in 2013.

Xinhua (2019) reports that 'a total of 162 countries and regions have established 550 Confucius Institutes and 1,172 Confucius classrooms' since the first CI appeared in 2004. As a topic for news coverage, China's substantial investments in CIs, which offer culture and language training in English-speaking countries (and elsewhere outside China), provide a revealing range of variation in tone and latent default points of view reflected in news coverage, which we argue is useful for observing newspapers' difficult-to-measure attitudes towards China.

The tone or favourability towards China seen in stories on other China-related topics, such as trade policy or political disputes, may be influenced somewhat predictably by short-term changes in the political relationships between governments in newspapers' home countries and China. In contrast, our goal is to study longer-term trends in the political orientation of mainstream English-speaking newspaper coverage of CIs as a lens through which to observe attitudes and opinion with respect to China's changes over time. Stories about political disputes may obscure latent trends in newspapers' political orientation towards China, leaving less room for social scientists to observe a wide range of rather subtle aspects of journalists' default viewpoints towards China. CIs are therefore a useful topic for observing the wide range of divergent opinions in newspaper coverage of China in the English-speaking news media.

Our analysis focusses on the ten-year period from 2006 to 2015 that preceded Donald Trump's presidential campaign in 2016, which we refer to as the *pre-Trump era*. The search algorithm and methodology we used are described in detail in the following section. In 2016, the appearance of then-candidate Donald Trump and his criticisms about the US-China trade relationship may have shifted world politics and English-speaking populations' attitudes towards China. Some have speculated that Trump's influence on world politics – especially with regard to attitudes and policies towards China – may turn out to be a global structural break from the pre-Trump era regarding sentiment towards China, although we do not have enough data to test this hypothesis explicitly. Alternatively, the pre-Trump era could have been a period of general decline in sentiment towards China and, thus, declining favourability of news coverage about China. In either case, trends in the favourability of news stories in the pre-Trump era are a worthwhile target of investigation that fills a gap in the existing literature. The negative time trends in the favourability reported in this paper provide new evidence that negative sentiment towards China – at least in the US, Canada and Australia – began in the decade preceding the appearance of Trump in global politics in 2016.

A large volume of scholarship on CIs in general as an instrument of China's *soft power* has appeared across the social sciences, covering a broad range of normative evaluations and interpretations of their function (e.g. Sahlins 2015; Gil 2017; Brady 2018; Hubert 2019). Metzgar and Su (2017) study 426 news articles that mention Confucius Institutes or Confucius Classrooms (CCs) in US newspapers. They find that only 183 out of those 426 articles contained more than a mention of a single CI or CC. They also report that, of those 183 articles that did consider geopolitical motives, the majority of them reported 'uncritically on these Chinese institutions without providing broader context about China's rationale for engaging in such activities' (Metzgar and Su 2017, 1000).

Brazys and Dukalskis (2019) find that geographic proximity to an active CI has a significantly positive effect on the 'tone' of media coverage of China-related events (and not CIs in particular). Their data, which run from 2000 to 2018, cover more than 100 languages and 6,000 locations worldwide and show a significantly negative global time trend in tone, with sharp drops in global mean tone in 2013 and 2015. García-Herrero and Xu (2018) use the same data (GDELT) as Brazys and Dukalskis (2019) to analyse news stories' 'tone' by country and geographic region when reporting on the topic of China's Belt and Road Initiative (BRI): 'All regions as a whole, except South Asia, have a positive perception of the BRI, but there are marked differences at the country level, with some countries in all regions having very negative views'. Although their data include observations from as early as 1979, García-Herrero and Xu's study contains no time-trend analysis.

Recent news about CIs (not included in our analysis of news stories from 2006 to 2015) includes the announcement by Texas A&M University that it will terminate its relationship with the CI resident on its campus, based on the argument that their relationship could pose a threat to US national security (Wang 2018). Another recent news story in the *Washington Post* reports that US government officials, academics and intelligence officers are committed to a policy of limiting the Chinese government's public diplomacy at public universities in the US, with the recommendation that US universities reconsider their decisions to host CIs on their campuses (Rogin 2018). Moreover, the US Council on Foreign Relations refers to a research, which is critical of China's spending on soft power with the fact that China spent approximately US\$10 billion per year expressing soft power and public diplomacy, of which CIs were a major part (Albert 2018). In addition, Custer et al. (2019) provide an indepth qualitative analysis of China's 'public diplomacy' and its

measurable effects on public opinion, including three dimensions of 'favourability' based on AsiaBarometer survey data.

Thus, debates surrounding CIs and CCs have intensified since they were first launched. The observed variation across countries and over time in the intensity and tone of these debates motivate testing a null hypothesis of a nil time-trend in favourability against the alternative hypothesis of the declining favourability. We test this null hypothesis for each country individually and in a pooled model that forces the data to estimate a common time trend in favourability.

Our data consist of 337 newspaper stories published from 2006 to 2015 in six countries. We use these data to characterise the favourability of news coverage of CIs – in levels, trends and variability – with special attention to macroeconomic drivers of favourability across countries and years. Our analysis addresses four descriptive questions:

- 1. Did the news media across these six countries in the pre-Trump era tend to view CIs favourably, neutrally or unfavourably (i.e. what was the time-averaged *level* of favourability)?
- 2. Was there a flat time trend in favourability during the pre-Trump era or was it already trending negatively before Trump entered the global geopolitical scene in 2016?
- 3. How much within-country variability was there relative to cross-country variability in favourability?
- 4. Was favourability associated with real GDP per capita, trade flows with China, or the number of CIs (as a proxy for China's investment in soft power in each country-year observation)?

The first question reflects our aim to provide an empirically-grounded descriptive account of views about CIs in the selected English-language newspapers in six countries, pooled or averaged over time to establish a baseline measurement of average favourability in English-speaking newspapers of record. Given different trade intensities, cultural linkages and political relationships with China across the six English-speaking countries we focus on, we expect to observe heterogeneity across countries (i.e. large differences in mean favourability).

The second question looks for evidence regarding whether there was already an identifiable time trend in favourability towards CIs before the geopolitical 'shock' of Trump's appearance and influence on international politics. If the data reveal a negative time trend (i.e. declining sentiment towards CIs) prior to Trump's appearance, then this would provide a novel empirical finding that complicates what we suspect are over-simplified narratives which attribute deterioration in relations with China to Trump's influence. Instead, the declining favourability towards China could be interpreted as one of the conditions of possibility that, in part, led to Trump's election and other English-speaking leaders with less favourable views towards China than their predecessors.

In the third question, we hypothesise that within-country variation in favourability through time is less than cross-country differences in time-pooled mean favourability.

The last question examines the link between country-specific macroeconomic conditions (including trade intensities with China) and favourability towards CIs. One hypothesis based on a rather orthodox reading of economic theory and a narrow set of data measuring trade flows would hold that unfavourable news coverage could be expected to appear most frequently where it costs the least (i.e. in country-year with below-average trade intensities with China). However, this prediction based solely on trade flows fails to consider other expected economic costs and perceived rivalries over longer time periods tied to fear of losing political and economic influence relative to that of China, particularly in developed countries. Lien, Oh, and Selmier (2012) and Lien and Lo (2017) report that CIs provide much larger positive effects on trade and FDI for developing countries than for higher-income countries. Given the large magnitude of these effects, we expect greater favourability in views on CIs in Kenya's news reporting. Lien and Co (2013) find that CIs promote US exports to China, which may improve favourability somewhat, but not enough to overcome otherwise generally unfavourable views based on developed countries' perceived threat to their economic and political power. Based on these previous studies, we predict that the data will show greater frequencies of unfavourable views about CIs in developed countries. This prediction is based on the hypothesis that developed countries perceive political rivalry more intensely and are therefore more concerned about China's rising political and economic power than developing countries are.

This paper begins by providing additional methodological detail about data collection and measurement of favourability. Then it presents mean contrasts in favourability, broken out by country, by newspaper and by year. Then we model the conditional probability of this discrete ordered dependent variable (i.e. favourability) using an ordered logit model, conditional on a country-year's real GDP per capita, the number of CIs located in each country-year and its square (to allow for nonlinear effects of the number of CIs). A previous study (Akhtaruzzaman, Berg, and Lien 2017) use count data on the number of CIs in each country as an explanatory variable (interpreted as a proxy for soft power) in a model of FDI inflows as the dependent variable.

We test the null hypothesis that the marginal effect on favourability of an additional CI in the newspaper's home country is zero, adding a novel test to the literature on soft power and an important dimension of China's return on investment in public diplomacy. We compare empirical models that alternatively include country, newspaper and year fixed effects. Newspaper and country fixed effects cannot be included simultaneously due to perfect collinearity between country and newspaper fixed effects. We jointly test whether the data reveal significant differences across countries and newspapers and through time.

The paper proceeds as follows. The following section describes the methodology used to collect the primary data presented in this paper measuring favourability of news stories about CIs. The next section presents descriptive statistics summarising mean favourability and trends in favourability across the six English-speaking countries included in our sample. The subsequent section presents an ordered logit empirical model of favourability with country fixed effects, per capita income, trade, and an opinion variable (i.e. country-specific view towards China) as the main explanatory variables. The final section concludes with a discussion of the empirical findings.

### Methodology

New primary data were collected for this study. We began by selecting six Englishspeaking countries spanning five continents from which to sample newspaper reports on the topic of CIs: the US, Canada, the UK, Australia, Kenya and India. Newspapers were selected as primary data sources because of their influence on both domestic and international politics. Newspapers with large readerships and a reputation as being a 'newspaper of record' (see below) were included.

According to Martin and Hansen (1998), the concept of 'newspaper of record' is mostly informal and determined by reputation rather than by law. There is no authoritative credentialing organisation that provides a master list of 'newspapers of record' in each country, although a list (see https://en.wikipedia.org/wiki/Newspaper\_of\_record) can be found on Wikipedia which overlaps considerably with the six countries in our sample design. We acknowledge that, in practice, there is no perfectly neutral or objective standard of news reporting to use as a filter for selecting which newspapers to sample. Systematic patterns (across countries and through time) in the subjective content in news stories published in those newspapers that are regarded by many as 'neutral', 'balanced' or 'middle-of-the-road' (on an ideological or political spectrum) were the target of our investigation. Whether conscious or subconscious, decisions about which facts to notice and report as newsworthy challenge journalists and scholars' best attempts at classifying news stories and newspapers as 'neutral and objective' or otherwise (Minsky 1974; Iyengar 1994; Cappella and Jamieson 1997; Druckman 2001; Cacciatore, Scheufele, and Iyengar 2016).

Despite the challenge of defending judgments regarding which newspapers are 'newspapers of record' or 'middle-of-the-road', the following list of 20 major newspapers (subsequently reduced to 16, as explained below) should be mostly uncontroversial, as they represent what are at least 'widely regarded' as 'newspapers of record' that are ideologically 'middle-of-the-road'. They are representative of trends in journalistic viewpoints towards China reflected in each country's 'mainstream' news coverage.

Considering differences in quantities of news articles published in the Englishspeaking countries in our sample and different numbers of CIs, our selection of newspapers was mainly determined by readership (i.e. circulation) and - as a secondary criterion for inclusion – overseas readership as an indication of each newspaper's international influence, as well as the practical constraint of database accessibility. We readily acknowledge that virtually any sampling technique of news coverage, including ours, is imperfect and incomplete. More comprehensive data of news coverage about CIs will be worthwhile to pursue in future research.

The LexisNexis database, which describes itself as containing the largest number of English-language news stores (among all available databases), was our source for news reports about CIs. Keyword search was conducted using the LexisNexis database for 'Confucius Institute', 'Confucius Classroom', 'Hanban' (the parent organisation in China that administers CIs and CCs), including abbreviations such as 'CI' plurals, and

a short list of variations and related keyword-search terms. This search returned 339 articles across the 16 newspapers from 1 November 2004 to 31 December 2015. The earliest-appearing article coincided with the founding date of the first CI in November 2004. Only two news reports were found in 2004–2005 (one negative story in the *Sydney Morning Herald* and one negative story in *The Globe and Mail*). We therefore included only the years from 2006 onward. The estimation sample from 2006 to 2015 includes N = 337 news reports in total.

*Financial Times* and *Toronto Sun* both had zero news stories mentioning 'Confucius Institute' or related keywords during the 2006–2015 period and were therefore excluded from the results reported in this paper. Kenya's *The Nation* and *The Sunday Nation* were both coded as news reports from their parent newspaper, *Daily Nation*. Thus, our original list included 20 newspapers before dropping *Financial Times* and *Toronto Sun* due to observing zero CI stories and re-coding the two Kenyan titles, which left 16 newspapers whose CI stories from 2006 to 2015 comprise our data.

The following list summarises the number of news reports collected from each country (in brackets [.]) and each newspaper (in parentheses (.)), pooling over the tenyear period of 2006–2015:

- four US sources [86]: The New York Times (40), The Washington Post (32), Los Angeles Times (11) and The Wall Street Journal (3);
- five UK sources [58]: The Times (5), The Daily Telegraph (10), The Guardian (36), Independent (7) and Financial Times (0);
- three Canadian sources [82]: Toronto Sun (0), The Globe and Mail (64), National Post (18);
- two Australian sources [80]: *The Australian* (55) and *TheSydney Morning Herald* (25);
- four Kenyan sources [16]: *Star* (6) and *Daily Nation* (10), which also publishes *The Nation* and *The Sunday Nation*; and
- two Indian sources [15]: The Times of India (10) and Hindustan Times (5).

In comparison, Metzgar and Su (2017) include a total of 426 news articles about CIs, 183 of which contain sufficiently meaningful discussions from which 'tone' or political viewpoints could be discerned. Our research differs from Metzgar and Su (2017) in both the choice of media and timeframe. Our data include only four American newspapers from 2006 to 2015. In contrast, Metzgar and Su (2017) consider 109 American news agencies from 2003 through early 2016. Since the first CI was opened in 2004 and the first CI in the US was established in 2006, we decided to examine the ten-year pre-Trump era from 2006 to 2015.

Our empirical strategy was to summarise the outcome (and not the underlying mechanisms) of possible 'framings', 'takes', 'attitudes', 'tone' or 'interpretations' of CIs in mainstream news reporting by adopting a simple polychotomous scale of favourability whose range includes three possible values: 'negative', 'neutral' or 'positive'. To generate a dependent variable that captures each news story's favourability towards CIs in the newspapers listed above, we hired two 'coders' (i.e. 'raters') who worked independently to code each article as negative, neutral, or positive in its attitude towards CIs based on the following protocol. To deal with the challenge of objectively measuring favourability of news coverage, we gave the raters detailed instructions with keywords and examples illustrating the boundaries we had in mind to distinguish 'negative' and 'positive' from 'neutral'.

Coders read each news story. First they recorded the factual information which (after training) they considered to be relatively 'value-free': for example, the country in which the story was published, the date it was published, and statements of fact about CIs (e.g. the year in which the first CI was established, the number of CIs worldwide, the administrative function of Hanban, the agency in Beijing affiliated with China's Ministry of Education that is responsible for administering CIs worldwide). Then, using the full text of each news report (including headlines and quotations from interviews), the coders were instructed finally to code each report's favourability towards CIs on the three-valued favourability scale, i.e. negative, neutral or positive. These two coding results achieved a high inter-rater kappa= 0.76 on the three-valued discrete measure. Landis and Koch (1977) regard values of this statistic between 0.60 and 0.80 as 'substantial agreement'. In the next section, we report mean contrasts in favourability by country, newspaper and year.

# **Descriptive statistics**

In Table 1, we present mean rates of (three-valued) favourability along with mean rates of binary indicators for negative, positive and neutral news reports by country, year, month and day of week. Mean favourability (pooling over time) is found to be the lowest in Canada with a negative score of -0.695, followed by (from the 2nd-least to the greatest) the US's -0.465, Australia's -0.213, India's -0.200, the UK's -0.052, and Kenya's 0.688. The six countries' greatest-to-least ordering in mean negativity is almost the same (with only India and Australia switching ranks 3 and 4). Mean rates of negativity cover a wide range of variation, from Canada's 0.720 to 0 in Kenya. Interestingly, the six countries' ranking by rates of neutrality is noticeably different (from most to least neutral): the UK, Australia, India, the US, Kenya and Canada, covering a range of 0.672 in the UK to 0.256 in Canada. The large number of neutral observations in the UK results in its low negative mean score of favourability. In contrast, Kenya's low rate of neutrality (0.313) and high rate of positivity (0.688) result in its low ranking by neutrality.

Mean favourability would seem to be inversely related to income (i.e. GDP per capita), although India and the highly neutral UK would be exceptions requiring further explanation. This (as of yet speculative) negative association between mean income and favourability can be seen most clearly in the ranking of rates of binary positivity, where Kenya is followed by India in ranks 1 and 2. According to Table 1, the data decisively reject the null hypothesis of equality across countries in (i) mean favourability, (ii) mean negativity, (iii) mean neutrality, and (iv) mean positivity. The data also reject the null hypotheses (i)-(iii) of equal means by year and by month. The bottom row of Table 1 shows that positive stories are far less frequent overall, occurring at one quarter of the rate that negative and neutral stories do. The small number of positive observations likely explains the relative

	3-Value favorability	overall $v \in \{-1,0,1\}$			Rat	tes of bin neutrality	ary negativ 1, positivity	vity,	
	Favou	rability		Neg	ative	Ne	utral	Po	sitive
	Mean	SE (mean)	N	Mean	SE (mean)	Mean	SE (mean)	Mean	SE (mean)
Country									
USA	-0.465	0.070	86	0.547	0.054	0.372	0.052	0.081	0.030
UK	-0.052	0.075	58	0.190	0.052	0.672	0.062	0.138	0.046
Canada	-0.695	0.057	82	0.720	0.050	0.256	0.048	0.024	0.017
Australia	-0.213	0.070	80	0.325	0.053	0.563	0.056	0.113	0.036
Kenya	0.688	0.120	16	0.000	0.000	0.313	0.120	0.688	0.120
India	-0.200	0.200	15	0.400	0.131	0.400	0.131	0.200	0.107
<i>p</i> -Val for null: 6 equal country means	0.0	00		0.	000	0.	000	0.	000
Year									
2006	-0.133	0.165	15	0.267	0.118	0.600	0.131	0.133	0.091
2007	0.111	0.159	18	0.167		0.556	0.121	0.278	0.109
2008	-0.308	0.175	13	0.385	0.140	0.538	0.144	0.077	0.077
2009	-0.258	0.113	31	0.355	0.087	0.548	0.091	0.097	0.054
2010	-0.261	0.129	23	0.348	0.102	0.565	0.106	0.087	0.060
2011	-0.429	0.094	35	0.457	0.085	0.514	0.086	0.029	0.029
2012	-0.200	0.135	35	0.429	0.085	0.343	0.081	0.229	0.072
2013	0.074	0.118	27	0.148	0.070	0.630	0.095	0.222	0.082
2014	-0.635	0.069	85	0.718	0.049	0.200	0.044	0.082	0.030
2015	-0.309	0.086	55	0.400	0.067	0.509	0.068	0.091	0.039
<i>p</i> -Val for null: 10 equal	0.0	00		0.	000	0.	000	0.	115
yearly means									
Month									
1	-0.600	0.113	30	0.667	0.088	0.267	0.082	0.067	0.046
2	0.053	0.162	19	0.211	0.096	0.526	0.118	0.263	0.104
3	0.143	0.143	21	0.143	0.078	0.571	0.111	0.286	0.101
4	-0.115	0.101	26	0.192	0.079	0.731	0.089	0.077	0.053
5	-0.333	0.167	24	0.542	0.104	0.250	0.090	0.208	0.085
6	-0.522	0.102	46	0.630	0.072	0.261	0.065	0.109	0.046
7	-0.351	0.111	37	0.459	0.083	0.432	0.083	0.108	0.052
8	-0.667	0.140	18	0.722	0.109	0.222	0.101	0.056	0.056
9	-0.410	0.088	39	0.436	0.080	0.538	0.081	0.026	0.026
10	-0.239	0.089	46	0.326	0.070	0.550	0.073	0.020	0.020
11	-0.278	0.177	18	0.320	0.121	0.389	0.118	0.007	0.090
12	-0.231	0 201	13	0 385	0.140	0.362	0.144	0.154	0 104
<i>p</i> -Val for null: 12 equal	0.0	000	15	0.505 0.	000	0.102	000	0.151	125
Day of wook									
Monday	0.275	0 1 1 7	22	0.460	0 000	0 420	0.000	0.004	0.050
Tuesday	-0.575	0.117	52	0.409	0.090	0.450	0.069	0.094	0.052
Nedecedeu	-0.354	0.077	65	0.431	0.062	0.492	0.062	0.077	0.033
Thursday	-0.281	0.090	/د د/	0.439	0.000	0.404	0.000	0.158	0.049
Friday	-0.405	0.097	42	0.4/6	0.075	0.452	0.078	0.071	0.040
Friday	-0.391	0.101	40	0.500	0.075	0.391	0.073	0.109	0.046
Saturday	-0.255	0.092	51	0.3/3	0.068	0.510	0.071	0.118	0.046
Sunday	-0.227	0.117	44	0.432	0.0/6	0.364	0.0/3	0.205	0.062
<i>p</i> -val for null: / equal	0.8	20		0.	922	0.	/39	0.	503
aay-of-week means	0.222	0.027	227	0.442	0.027	0.420	0.027	0.110	0.010
Pooled	-0.323	0.037	33/	0.442	0.027	0.439	0.027	0.119	0.018

Table 1. Mean favourability (three-valued: -1 negative, 0 neutral, 1 positive) and mean rates of binary negative, neutral and positive news reports, by year, country, month and day of week.

Data source: Calculated based on LexisNexis database.

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Figure 1. Continued.

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Figure 1. Cite count by country and year. (A) Negative news report probability. (B) Positive news report probability.

lack of statistical precision that leads to the data failing to reject null hypothesis (iv), by year and by month, at conventional levels.

Figure 1(a) presents the ten-year time series in number of observations, referred to as *citation count*, by country-year, pooling over all news reports (negative, neutral and positive) from a particular year and overall newspapers in a given country. The empirical distribution of *citation count* is markedly non-uniform through time and across countries. Figure 1(b) shows the time series of negative, neutral and positive story counts by country-year. In Figure 1(b), negative story counts show an increasing overall time trend with a maximum (sample mode) in 2014. Neutral stories were the most common type of CI news stories in most years of the UK and Australian time series. There were, however, large spikes in the frequency of negative stories and a steady rise in neutral stories in the US. In contrast, positive stories were frequent in most years in Kenya's time series.

As a baseline case before adding more explanatory variables in the next section, Figure 2 shows predicted probabilities that depend only on a common linear time trend and country fixed effects, estimated as an ordered logit model of favourability. Negative news reports are significantly increasing. Positive news reports are significantly decreasing, although, starting from a lower base rate of positive news stories, the decreases observed in Figure 2 in the predicted probability of positive stories over time are much smaller (in percentage points) than increases in the probability of negative stories.

Table 2 presents mean favourability and mean binary rates of negative, neutral and positive news stories by newspaper. Five of sixteen newspapers have positive mean favourability. The two most positive are Kenya's *Daily Nation* and *Star*. Perhaps surprisingly, the two UK newspapers, *The Independent* and *The Times*, are ranked 3rd and 4th most positive, respectively. India's *Hindustan Times* is the 5th most positive. In contrast, the five most negative newspapers (ranked 12 through 16) are concentrated in the US and Canada. Among US and Canadian

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#### (B) Positive news report probability



**Figure 2.** Predicted probabilities of negative and positive news stories about Confucius Institutes in six English-speaking countries as a function of common linear time trends and country fixed effects (with neutral stories serving as the omitted reference class in the three-value polychotomous measure of favourability).

Table 2. Mean favorability (-1 negative, 0 neutral, 1 positive) and mean rates of binary negative, neutral and positive news reports, and by year, country, month and day of week.

		3-valuea	overall favoura	bility $\in$ {-1	,0,1}									
			Favourabili	Ą.		Ne	gative	N6	eutral	PG	sitive	Favou	rability	
Country	Newspaper	Mean	SE (mean)	z	Rank	Mean	SE (mean)	Mean	SE (mean)	Mean	SE (mean)	Mean	SE (mean)	z
USA														
	The New York Times	-0.575	0.094	40	14	0.625	0.078	0.325	0.075	0.050	0.035	-0.575	0.094	40
	Washington Post	-0.375	0.133	32	12	0.531	060.0	0.313	0.083	0.156	0.065	-0.375	0.133	32
	Los Angeles Times	-0.273	0.141	11	6	0.273	0.141	0.727	0.141	0.000	0.000	-0.273	0.141	1
	The Wall Street Journal	-0.667	0.333	ε	15	0.667	0.333	0.333	0.333	0.000	0.000	-0.667	0.333	m
NK														
	The Times	0.200	0.200	5	4	0.000	0.000	0.800	0.200	0.200	0.200	0.200	0.200	S
	The Daily Telegraph	-0.100	0.233	10	9	0.300	0.153	0.500	0.167	0.200	0.133	-0.100	0.233	10
	The Guardian	-0.167	0.085	36	8	0.222	0.070	0.722	0.076	0.056	0.039	-0.167	0.085	36
	The Independent	0.429	0.202	7	ε	0.000	0.000	0.571	0.202	0.429	0.202	0.429	0.202	~
Canada														
	The Globe And Mail	-0.766	0.058	64	16	0.781	0.052	0.203	0.051	0.016	0.016	-0.766	0.058	64
	National Post	-0.444	0.145	18	13	0.500	0.121	0.444	0.121	0.056	0.056	-0.444	0.145	18
Australia														
	The Australian	-0.164	0.089	55	7	0.309	0.063	0.545	0.068	0.145	0.048	-0.164	0.089	55
	The Sydney Morning Herald	-0.320	0.111	25	11	0.360	0.098	0.600	0.100	0.040	0.040	-0.320	0.111	25
Kenya														
	Star	0.667	0.211	9	2	0.000	0.000	0.333	0.211	0.667	0.211	0.667	0.211	9
	Daily Nation	0.700	0.153	10	-	0.000	0.000	0.300	0.153	0.700	0.153	0.700	0.153	10
India														
	The Times of India	-0.300	0.300	10	10	0.600	0.163	0.100	0.100	0.300	0.153	-0.300	0.300	10
	Hindustan Times	0.000	0.000	5	5	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	ŝ
				5										
	Total	-0.323	0.037	##		0.442	0.027	0.439	0.027	0.119	0.018	-0.323	0.037	##
Note: Our	original list of sources include	s four additic	nal newspaper	titles. Fina	incial Time	s and <i>Tor</i>	onto Sun bot	ch had ze	ro citation c	ounts for	articles ment	tioning 'Co	nfucius Instit	ute'
and relate	ed keywords. Two Kenyan news	bapers publish	ned by Daily Na	tion, The N	ation and	The Sundo	ly Nation, we	ere both c	oded as new	vs reports	from Daily N	ation.		

Table 3.	Gross exports to China	as a share of GDI	P and favourab	ility (pooling	l over years)	by country.			
Country	Log [(Gross Exports to China)*100/GDP]	Rank by share of gross exports to China	Rank by favourability	Rank by inverse negativity	Rank by positivity	Ln [Real GDP Per Capita]	Rank by GDP per capita	Log [(Trade Vol w/China)*100/GDP]	Rank by net trade with China as share of GDP
Canada	0.47	6	. 0	. 9	. 9	10.65	5	1.05	5
UK	0.48	S	2	m	m	10.53	4	0.76	9
NSA	0.73	4	5	5	ß	10.84	-	1.05	4
Australia	0.85	£	4	4	4	10.64	ĸ	1.95	2
India	0.98	2	c	2	2	8.58	5	1.25	S
Kenya	1.88	1	1	1	1	7.92	9	1.89	1

newspapers, only Los Angeles Times (ranked 9, with mean favourability -0.273) is not among the most negative five. One noteworthy pattern among the four UK newspapers in Table 2 is the smaller number of CI stories published in the two most positive versus two most negative, 5+7=12 versus 10+36=46. Recall from Table 1, however, that the UK has the 2nd most positive mean favourability and 3rd largest rate of positive stories.

Table 3 presents two more bivariate relationships between countries' favourability rankings and time-averaged mean gross exports to China as a share of GDP and GDP per capita. This table shows that, with the exception of the UK, the ranking of countries by Chinese exports' share of GDP almost perfectly matches the inverse ranking by favourability. Table 3 implies that the expression of negative views towards China tends to be more prevalent in countries where it is more affordable in the sense of potentially jeopardising a smaller share of exports relative to GDP. Indeed, Lien, Oh, and Selmier (2012) and Lien and Lo (2017) report that CIs have little effect on bilateral trade between China and the host country when the latter is an advanced economy. Income per capita is a weaker predictor of favourability among these six countries, in part, because four of them have rather similar levels of mean per capita income. Lien and Oh (2014) find that income per capita is an important determinant of the establishment of CIs. The largest income differences, however, respect the negative association between income and favourability mentioned earlier.

### Ordered logit models of favourability

Whereas Table 1 presents comparisons of unconditional mean favourability, we now report ordered logit models of the conditional probabilities of negative, neutral and positive news coverage showing what the data reveal about the influence of time trends, country fixed effects, macroeconomic and political sentiment towards China across country-year observations. Marginal effects on favourability in an ordered logit model are presented in Table 4. All models include country fixed effects, the natural logarithm of GDP per capita, the number of CIs and a quadratic term in the number of CIs in each country-year. Model A assumes a common linear time trend, which exerts an economically and statistically negative effect on favourability, thus confirming the declining time trend in the pre-Trump era. Model B replaces the linear time trend with year fixed effects, which allows for an arbitrary global shock to the predicted probabilities of favourability each year.

Model C nests all regressors in Model B and includes one additional variable based on Pew opinion data, referred to as 'negative view of China'. Since the Pew data are not available in all country-years, Model C includes only 210 (versus 337) country-year observations. The Pew Research Centre (Silver, Devlin, and Huang 2019) reports a significantly positive pairwise correlation between GDP per capita and the percentage of the population with an unfavourable view of China in a cross section of 34 countries. However, individuals who report that their country's economy is strong in a particular year tend to be more favourable to China. Appendix A reports means and empirical ranges of variation for all variables in Table 4.

Table 4.	Marginal	effects on the	predicted pi	robability	distributior	ı of favou	ırability in th	ree ordere	d logit mo	dels (omi	tted referend	ce class is	the US).	
				Model A* (I	V=337)			Model B** (I	V=337)		N	lodel C*** (	N=210)	
Variable		Fav outcome	∆ Pr. prob	Std err	Z	<i>p</i> -Val	∆ pr. prob	Std err	z	<i>p</i> -Val	Δ pr. Prob	Std err	z	<i>p-</i> Val
Part A														
UK		Negative	-0.702	0.037	-19.130	0.000	-0.669	0.066	-10.110	0.000	-0.626	0.082	-7.590	0.000
		Neutral	0.240	0.052	4.650	0.000	0.264	0.037	7.120	0.000	-0.014	0.066	-0.210	0.830
		Positive	0.462	0.081	5.700	0.000	0.405	0.094	4.290	0.000	0.640	0.024	26.660	0.000
Canada		Negative	-0.320	0.037	-8.730	0.000	-0.339	0.043	-7.860	0.000	-0.366	0.087	-4.210	0.000
		Neutral	0.085	0.049	1.720	0.085	0.114	0.072	1.580	0.113	-0.067	0.084	-0.810	0.420
		Positive	0.235	0.047	4.990	0.000	0.225	0.071	3.160	0.002	0.434	0.162	2.690	0.007
Australia		Negative	-0.485	0.043	-11.250	0.000	-0.493	0.053	-9.320	0.000	-0.271	0.222	-1.220	0.222
		Neutral	0.198	0.043	4.650	0.000	0.210	0.056	3.760	0.000	0.053	0.516	0.100	0.918
		Positive	0.286	0.018	15.510	0.000	0.283	0.028	9.960	0.000	0.218	0.737	0.300	0.767
Kenya		Negative	-0.879	0.014	-63.530	0.000	-0.877	0.014	-61.110	0.000	-0.798	0.082	-9.690	0.000
		Neutral	-0.093	0.013	-7.440	0.000	-0.094	0.013	-7.250	0.000	-0.164	0.078	-2.110	0.035
		Positive	0.972	0.007	148.240	0.000	0.972	0.006	152.250	0.000	0.961	0.010	98.910	0.000
India		Negative	-0.818	0.015	-56.050	0.000	-0.817	0.015	-54.250	0.000	-0.712	0.081	-8.750	0.000
		Neutral	-0.082	0.011	-7.110	0.000	-0.083	0.012	-6.890	0.000	-0.160	0.075	-2.120	0.034
		Positive	0.900	0.004	206.100	0.000	006.0	0.004	211.930	0.000	0.871	0.009	94.910	0.000
Ln GDP Pei	r Capita	Negative	-3.114	1.237	-2.520	0.012	-2.581	1.482	-1.740	0.082	-9.354	4.700	-1.990	0.047
		Neutral	1.792	0.739	2.420	0.015	1.467	0.854	1.720	0.086	5.336	2.932	1.820	0.069
		Positive	1.322	0.553	2.390	0.017	1.114	0.658	1.690	0.091	4.018	1.996	2.010	0.044
#CIs		Negative	-0.021	0.008	-2.810	0.005	-0.022	0.009	-2.540	0.011	0.014	0.024	0.570	0.567
		Neutral	0.012	0.004	2.780	0.005	0.012	0.005	2.520	0.012	-0.008	0.014	-0.560	0.572
		Positive	0.009	0.004	2.520	0.012	0.00	0.004	2.330	0.020	-0.006	0.010	-0.580	0.565
#Clso2		Negative	0.000	0.000	2.740	0.006	0.000	0.000	2.520	0.012	0.000	0.000	-0.670	0.503
		Neutral	0.000	0.000	-2.730	0.006	0.000	0.000	-2.500	0.012	0.000	0.000	0.660	0.510
		Positive	0.000	0.000	-2.460	0.014	0.000	0.000	-2.320	0.020	0.000	0.000	0.680	0.500
Year (linear	r trend)	Negative	0.078	0.018	4.390	0.000								
		Neutral	-0.045	0.011	-4.100	0.000								
		Positive	-0.033	0.009	-3.650	0.000								

Part B									
2007	Negative	-0.015	0.055	-0.27	0.788				
	Neutral	-0.031	0.103	-0.30	0.768				
	Positive	0.045	0.157	0.29	0.774				
2008	Negative	0.212	0.111	1.91	0.056	-0.210	0.134	-1.56	0.118
	Neutral	0.062	0.125	0.49	0.623	-0.134	0.088	-1.52	0.129
	Positive	-0.274	0.168	-1.63	0.103	0.344	0.188	1.83	0.067
2009	Negative	0.178	0.082	2.18	0.029	-0.085	0.146	-0.58	0.559
	Neutral	0.072	0.120	0.60	0.547	-0.012	0.035	-0.34	0.734
	Positive	-0.251	0.154	-1.62	0.104	0.097	0.172	0.57	0.571
2010	Negative	0.180	0.092	1.95	0.051	0.032	0.168	0.19	0.848
	Neutral	0.072	0.116	0.62	0.536	-0.002	0.013	-0.14	0.890
	Positive	-0.252	0.167	-1.51	0.132	-0.030	0.157	-0.19	0.847
2011	Negative	0.417	0.097	4.31	0.000	0.221	0.167	1.32	0.186
	Neutral	-0.054	0.130	-0.42	0.676	-0.052	0.071	-0.74	0.462
	Positive	-0.363	0.173	-2.10	0.036	-0.169	0.121	-1.40	0.163
2012	Negative	0.354	0.103	3.45	0.001	-0.165	0.152	-1.09	0.277
	Neutral	-0.012	0.115	-0.11	0.914	-0.063	0.080	-0.79	0.430
	Positive	-0.342	0.178	-1.92	0.055	0.229	0.213	1.07	0.284
2013	Negative	0.240	0.107	2.24	0.025	-0.127	0.176	-0.72	0.470
	Neutral	0.050	0.109	0.46	0.644	-0.032	0.079	-0.40	0.691
	Positive	-0.290	0.183	-1.58	0.114	0.159	0.243	0.65	0.513
2014	Negative	0.629	0.086	7.31	0.000	0.468	0.140	3.35	0.001
	Neutral	-0.213	0.117	-1.82	0.069	-0.182	0.062	-2.95	0.003
	Positive	-0.416	0.179	-2.33	0.020	-0.286	0.135	-2.12	0.034
2015	Negative	0.525	0.113	4.65	0.000	0.487	0.148	3.30	0.001
	Neutral	-0.132	0.108	-1.22	0.221	-0.195	0.043	-4.50	0.000
	Positive	-0.393	0.183	-2.15	0.032	-0.292	0.142	-2.05	0.040
Negative view of China	Negative					4.627	1.638	2.83	0.005
	Neutral					-2.639	1.040	-2.54	0.011
	Positive					-1.988	0.757	-2.62	0.009
Notes: *The data easily reject the an additional CI is zero (coeff_[	e joint hypothesis th [CI] + $2^{\circ}$ coeff_[CI $\circ 2]^{\circ}$	hat all country effet $*2145 = 0$ , <i>p</i> -val =	ects are zero in M = 0.009, where 2	lodel A ( $p$ -val = 0 2145 is the samp	000). The data ir data ir he mean of #Clo	n Model A also rej. 2). **In Model B,	ect the restriction three parameter	that the margina restrictions are t	l effect of ested and
rejected: (1) country effects simu	ltaneously zero ( <i>p</i> -vi	al = 0.000; (2) ye	ar effects simulta	ineously zero (p-v	al = 0.000; (3) m	arginal effect of a	n additional Cl is	zero ( <i>p</i> -val = $0.0$	15). ***In C <sup>1 is not</sup>

woole t, the data, once again, reject the joint restrictions: (1) (p-val = u.uv) and (z) (p-val = u.uv), attnough restriction (s) concerning the marginal effect of another CI is not rejected (p-val = 0.500). Model C uses the variable 'Negative view of China' based on Pew opinion data that measure negative views towards China by country-year. Those data are not available in 2006 and in some country-years, which accounts for its smaller sample size. (A) Citations count by country and year. (B) Citation types count by country and year.

In Models A, B and C, the country fixed effects absorb time-invariant mean differences in income, exports to China, trade volume with China, and other country-specific factors that affect favourability. The US is the omitted reference class. The conditional model in Table 4 demonstrates a new finding that is not apparent in the unconditional favourability rankings reported in earlier unconditional results: the US is the most negative country overall, as seen in the uniformly negative coefficients on the predicted probabilities of negative news stories across the other five countries (in Models A, B and C). In Table 4, the US is also significantly less likely to run positive stories (conditional on other variables in the model), as seen in the uniformly positive effects on the predicted probability of positive news stories across the other five countries (with the lone exception of Australia in Model C, whose positive effect is not statistically significant). Huang, Lien, and Xiang (2020) demonstrate that US decisions to host CIs are influenced by China's level of satisfaction with a potential host university, budgets, and community engagement. After controlling for economic conditions (which affect university budgets and community engagement), the typical US university is more likely to accommodate a CI when China shows a higher level of satisfaction with the US. The rapid growth of the CI network in the US and adamant concern over the Chinese government's policies and motives for sponsoring CIs generate large numbers of negative US news stories about CIs.

It is not immediately obvious why Canada (which is, unconditionally, most negative and least positive in Table 1) is no longer most negative and least positive after including control variables in the conditional results in Table 4. In addition, Table 4 shows that the 2014 year fixed effect was the largest marginal effect on the predicted probability of negative news stories across all year fixed effects. Figure 1 shows that Canada's negative news story count peaked in 2014, whereas the US's spiked in both 2011 and 2014. Aside from 2014, Canada's negative news story count was relatively low. Therefore, the year 2014 fixed effect absorbed most of Canada's negative stories, leaving its country fixed effect to be relatively more favourable than the US's.

In December 2013, the Canadian Association of University Teachers passed a resolution calling on all Canadian universities and colleges that currently hosted CIs on their campuses to close their CIs and halt those CIs still in the planning process. In October 2014, the Toronto District School Board voted to cancel its CI contract with Hanban. On the US side, the University of Chicago suspended negotiations with Hanban on CI contract renewal in September 2014. Pennsylvania State University followed, with the closure of their CI in October 2014. These first two CI closures in the US attracted a lot of media attention, and further CI closures in the US continued thereafter. The so-called Braga incident in July 2014 led to news coverage alleging that Hanban and CI leaders threatened academic freedom by pressuring host universities to suppress research and debate over Taiwan of China that led to further negative media attention (European Association for Chinese Studies 2014). Regarding the 2011 spike in negative CI stories in the US, there were two noteworthy China-related events. In January 2011, President Hu Jintao of China visited the CI at Walter Payton College Preparatory High School in Chicago (Chanpong 2011). In November 2011, a speech by Li Changchun, then a member of the Standing Committee of the Politburo, also attracted considerable media attention (Epstein 2018).









**Figure 3.** Predicted probabilities of negative and positive news stories about Confucius Institutes in six English-speaking countries as a function of country-specific linear time trends and country fixed effects (with neutral stories serving as the omitted reference class in the three-valued poly-chotomous measure of favourability).

The variable Ln GDP per capita absorbs within-country variation in income that is not absorbed by the country fixed effects and time trends in the model. According to Table 4, income has a negative effect on the predicted probability of negative news stories but a positive effect on the predicted probabilities of neutral and positive news stories, which is worth considering in relation to Pew's seemingly conflicting pair of bivariate findings on income and negative views towards China. After absorbing countries' mean level of income and trade with China in the country fixed effects in Table 4, within-country above-trend deviations in income are positively associated with favourability. Table 3 shows that, with the exception of the UK, high-income countries generally have belowaverage favourability. Within a country, however, those years in which income is greater than expected tend to have more favourable news coverage of CIs overall, as seen in the coefficients on Ln GDP in Table 4. The two seemingly inconsistent income effects in the Pew study mentioned above suggest that higher-income countries tend to have less favourable views on China overall, but years in which people feel that their economy is performing well tend to have more favourable views. Finally, Model C demonstrates that favourability is associated with Pew opinion data by country-year where Pew data are available.

Our model fits a quadratic in the number of CIs, which is non-monotonic over the empirical range of 1 (India 2010) to 109 (the US 2015). In the fully conditional ordered logit model, an additional CI is negatively associated with favourability when the number of CIs is greater than 83. The negative effects of the marginal CI on favourability in Models A and B would suggest that China's investments in CIs may not necessarily generate a return on investment in terms of favourability in the same-country news coverage as expected (cf. Custer et al. 2019). Country fixed effects in Table 4, which measure the percentage-point difference from the US's predicted probabilities, are remarkably consistent across all three models.

Relaxing the assumption of a common linear trend and allowing each country to have its own country-specific linear time trend, Figure 3 shows predicted probabilities comparable with those in Figure 2, but with country-specific linear time trends and country fixed effects. The main difference between Figures 3 and 2 is India. In Figure 3, the probability of negative news reports falls sharply in India, although the relatively small number of observations from India (15) over the ten-year period suggests that this result is not estimated precisely and should be interpreted cautiously. All other countries' estimated time trends in Figure 3 are consistent with the predicted probabilities in Figure 2.

Comparisons reveal that the additional explanatory variables in Table 4 have little influence on the wide-ranging country fixed effects. Appendix B shows an ordered logit model of favourability with only country fixed effects, and Appendix C shows a linear model of favourability regressed on country fixed effects estimated by OLS. Our main conclusions remain robust.

#### Discussion

We find evidence of important cross-country differences in the favourability of news stories about CIs in 'newspapers of record' in six English-speaking countries. Based on 337 news stories from 16 different newspapers from 2006 to 2015, we document a pattern of significantly declining favourability in the pre-Trump era, especially in the US and Canada. Kenya and India's news coverage of CIs is significantly more positive, and the UK's news stories are significantly more neutral. The bivariate relationships between GDP per capita, gross exports to China as a share of GDP, and trade volume with China (on one hand) and favourability (on the other) are all negatively correlated. Once country fixed effects and a time trend are included in the model, however, income is positively associated with favourability, all else equal.

The number of CIs in a country-year increased rapidly in some cases from 2006 to 2015. Our model fits a quadratic term in the number of CIs, which is non-monotonic over the empirical range of 1 (India 2010) to 109 (US 2015). The number of CIs is negatively associated with favourability in the fully conditional ordered logit model (when the number of CIs is greater than 83), suggesting that China's return on investment in CIs might not live up to expectations, at least in terms of favourable news coverage in the mainstream English-speaking press. Xie and Page (2013) reach a similar conclusion. Nevertheless, some further clarifications are in order. First, Yang (2020) argues that, while CIs do not effectively promote China's soft power, they do succeed at improving perceptions of China and the Chinese government. In other words, Yang's analysis suggests that CIs can be interpreted as an inward-looking diplomacy tool. Secondly, Brazys and Dukalskis (2019) find that the media in geographic proximity to an active report on CIs, and China in general, exhibit more favourable tone. Thus, according to Brazys and Dukalskis, CIs may be understood to function as a grassroots diplomacy instrument. Finally, Wang and Adamson (2015) document ambivalence towards China in media reports about CIs, arguing that any measurable positive effects of CIs on sentiment towards China is unlikely to occur at least in the short run.

Most importantly perhaps is the finding that negative shifts in sentiment towards CIs as an expression of China's soft power and public diplomacy began in the decade before Donald Trump appeared on the global geopolitical scene. Rather than attributing increased negativity towards China solely to the political influence of Donald Trump throughout the English-speaking world, the data reported in this paper suggest that favourability towards China's CIs (and perhaps towards the Chinese government more broadly) trended downward during 2006–2015 before candidate Trump's campaign began in 2016. After Trump assumed the role of US President and new trade disputes led to a deteriorating Sino-US relationship, new rounds of criticism of CIs emerged from 2017 to present in English-speaking news media and in the US in particular. Prior to 2018, two CIs in the US were closed in 2014, one in 2016, and three in 2017. Another two CIs in the US were reported to be closed in 2018, and further CI closures took place thereafter. By June 2020, the National Association of Scholars (2020) reported that 53 CIs in the US had been 'closed or were in the process of closing' with more than 60 remaining.

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### Note

1. There are an estimated 125 million English speakers living in India (see https://www.bbc. com/news/magazine-20500312;https://en.wikipedia.org/wiki/List\_of\_countries\_by\_English-speaking\_population).

#### **Disclosure statement**

No potential conflict of interest was reported by the author(s).

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Appendix A. Summary statistics for explanatory variables (other than year time trends and year fixed effects).

A	
art ,	
9	

		P	ooled (N=337)				Ne	egative (N=149	(0	
		337 News report 40 positive) [210	s (149 negativ with non-mis	e, 148 neutral, sing Pew data]			149 Ne [84 with I	gative news re non-missing Pe	eports ew data]	
Explanatory variables*	Mean	SE (mean)	Min	Median	Max	Mean	SE (Mean)	Min	Median	Мах
Ln Real GDP Per Capita**	10.45	0.04	7.87	10.65	10.87	10.62	0.04	8.59	10.66	10.87
Ln trade with China	1.26	0.03	0.13	1.12	2.24	1.22	0.03	0.50	1.12	2.23
Ln gross exports to China	0.72	0.02	-0.11	0.74	2.22	0.66	0.02	0.17	0.74	1.09
US	0.26	0.02	0	0	-	0.315	0.038	0	0	-
LK	0.17	0.02	0	0	-	0.074	0.021	0	0	-
Canada	0.24	0.02	0	0	-	0.396	0.040	0	0	-
Australia	0.24	0.02	0	0	-	0.174	0.031	0	0	-
Kenya	0.05	0.01	0	0	-	0.000	0.000	0	0	0
India	0.04	0.01	0	0	-	0.040	0.016	0	0	-
#Confucius Institutes <sup>***</sup>	30.63	1.90	1.00	12.00	109.00	36.19	3.19	2.00	12.00	109.00
#Confucius Instituteso2	2145.18	204.90	-	144	11881	2812.342	355.266	4	144	11881
Pew negative view Of China	0.463	0.007	0.140	0.480	0.630	0.498	0.007	0.330	0.490	0.630
z-Score negative view****	0.000	0.016	-0.698	0.037	0.361	0.076	0.016	-0.287	0.059	0.361

Part B									
Neutral (N=148)							Positive (N=40)		
148 Neutral nev [97 with non-mi	vs reports ssing Pew data]					40   [29 wit]	Positive news repo h non-missing Pew	rts / data]	
Mean	SE (mean)	Min	Median	Max	Mean	SE (mean)	Min	Median	Max
10.48	0.05	7.87	10.63	10.87	9.75	0.20	7.87	10.55	10.85
1.27	0.04	0.13	1.09	2.22	1.38	0.09	0.13	1.39	2.16
0.70	0.03	-0.11	0.72	2.22	0.98	0.09	-0.11	0.79	2.08
0.216	0.034	0	0	-	0.175	0.061	0	0	-
0.264	0.036	0	0	-	0.200	0.064	0	0	-
0.142	0.029	0	0	-	0.050	0.035	0	0	-
0.304	0.038	0	0	-	0.225	0.067	0	0	-
0.034	0.015	0	0	-	0.275	0.071	0	0	-
0.041	0.016	0	0	-	0.075	0.042	0	0	-
27.07	2.45	1.00	13.00	109.00	23.08	5.26	2.00	9.00	106.00
1617.892	255.611	-	169	11881	1610.975	525.193	4	81	11236
0.454	0.010	0.160	0.480	0.630	0.391	0.032	0.140	0.380	0.630
-0.019	0.021	-0.654	0.037	0.361	-0.156	0.069	-0.698	-0.179	0.361
Notes: *The tim	e variable, year, which	h ranges from 20	006 to 2015 and is	sometimes used as	a linear time trend	l and sometimes as	a set of 10 year fi	ked effects, is not i	ncluded in this
table. **The val	riable tabulated here	is real GDP per c	apita, for each resp	ective country-year,	measured in year-	2011 USD (using the	e GDP deflator). Th	iere can be multipl	e news reports
With different fa That leaves 49 i	vourability ratings with	thin a single coui rofiles for the vai	ntry-year. The US, C riables (aside from 1	anada and Australia favourability) summa	i generate news rep arised in Table 2, *	sorts in 10 years; the **The number of Co	UK in 9 years; Ken Influcius Institutes	ya in 6years; and 1 in each country-vea	ndia in 3 years. ar, which tends
to increase with	in each country in ye	ars. ****The Pev	v Index measures n	regativity of views t	owards China in a	country-year. This va	iriable is not availa	able in all years an	d consequently
reduces sample positive reports.	size in any model in The two opinion vari	which it is incluc ables measuring	ded. There are 337 - negative views tow	news-report observa ards China are asso	ations in 49 country ciated with 210 nev	years, which include ws reports – 84 nega	es 149 negative re Itive, 97 neutral, 29	ports, 148 neutral 1 9 positive – in 31 c	reports, and 40 ountry-years.

Variable	Favorability outcome	$\Delta$ Predicted probability*	Std err	Ζ	<i>p</i> -Val
UK	Negative	-0.304	0.071	-4.310	0.000
	Neutral	0.178	0.047	3.770	0.000
	Positive	0.126	0.040	3.190	0.001
Canada	Negative	0.187	0.073	2.560	0.010
	Neutral	-0.157	0.061	-2.560	0.010
	Positive	-0.029	0.013	-2.180	0.029
Australia	Negative	-0.204	0.072	-2.830	0.005
	Neutral	0.141	0.051	2.740	0.006
	Positive	0.063	0.026	2.460	0.014
Kenya	Negative	-0.505	0.055	-9.120	0.000
	Neutral	-0.137	0.107	-1.270	0.203
	Positive	0.642	0.114	5.650	0.000
India	Negative	-0.197	0.130	-1.520	0.128
	Neutral	0.137	0.141	-0.970	0.332
	Positive	0.060	0.143	4.490	0.000
	Predic	ted probability	std err	z	<i>p</i> -val
Model evaluated at means	Negative	0.445	0.037	11.930	0.000
	Neutral	0.438	0.038	11.500	0.000
	Positive	0.117	0.022	5.290	0.000

Appendix B. Country-specific marginal effects on the predicted probability distribution of favorability in an ordered logit model, N = 337 (the US is omitted as reference class)

Note: Marginal effects have much higher levels of significance before we cluster on a country-year ID variable allowing for within-country-year correlation of multiple news reports from the same country-year.

**Appendix C.** Linear regression of favourability on countries (the US omitted as reference class).

Variable	Coeff	SE	t	<i>p</i> -Value
UK	0.413	0.103	4.02	0.000
Canada	-0.230	0.090	-2.55	0.011
Australia	0.253	0.099	2.54	0.011
Kenya	1.153	0.136	8.46	0.000
India	0.265	0.207	1.28	0.201
Constant	-0.465	0.070	-6.66	0.000

Note: Test of null hypothesis of all zero coefficients on five country fixed effects has associated p-value = 0.000.