

The World according to newspapers

Introduction

The agenda-setting function of mass media influences strongly the way media consumers think (Cook et al., 1983). This is especially true when it comes to the image we hold of foreign countries (Manheim & Albritton, 1984).

Now, objectivity is considered as a cornerstone of journalism (Mindich, 1998). As we expect an article to adopt a neutral point of view, editors are thought to set the news agenda according to objective criteria so that readers' world views are shaped by non-partisan, neutral factors.

This essay looks deeper into this assumption, assessing the variables that lead to the editorial decision at the Sun, the Guardian and the Daily Mail. The brands were chosen for their different political views and readership, as well as their online search functionalities.

Methodology

The data originates from the Guardian's, the Sun's and the Daily Mail's websites, which allow for filtering the results according to the year of publication. The search engines returns the number of articles containing the searched term, notwithstanding its topic or preeminence (e.g. half a first page or a short snippet in an obscure section). In the case of countries' names overlapping, such as "Guinea" and "Equatorial Guinea", the figure has been estimated after a subtraction. In case of ambiguous names, such as "Jordan", which can carry the meaning of a first name, the name of the capital, "Amman", was used. The main problem of such a basic approach concerns the United Kingdom and the United States, major countries that are often referred to as "England" or "America", thus biasing the sample.

The three maps in the annex visually display the three samples, representing each country according to its weight in the newspapers. This essay tries to find the determinants of such an unequal distribution of media coverage.

The model we use aims at analyzing the variability in the sample using nine variables, each one linked to a different hypothesis.

- H₁: Newspapers favor developed countries over poorer ones. We test the sample against the UN Human Development Index, a metavariable aggregating education, health and wealth. Where HDI value is not calculated (because of war, in Iraq or Somalia, or because of a lack of time, in Montenegro) we take the latest one available or a composite computed by non-UN agencies.
- H₂: Newspapers cover the places where the national army is involved. We test the sample against the number of British soldiers deployed (Iraq and Afghanistan only).

- H₃: In an effort to reach out to their readers, newspapers cover the countries of origin of foreign minorities in the UK. Data represents the number of foreign-born people as calculated in the 2001 census.
- H₄: Newspapers cover countries closer to London. The sample is tested against the distance between London and each country's capital.
- H₅: Newspapers cover bigger countries. The variable tested is the land area in square kilometers.
- H₆: Newspapers cover more populous countries. The variable tested is the population as of 2000.
- H₇: Newspapers cover countries where governments are strongest. The sample is tested against government expenditure.
- H₈: Newspapers cover bigger economies. The sample is tested against each country's GDP in purchasing power parity (PPP).
- H₉: Newspapers follow the agenda set by the UN Security Council. The sample is tested against the number of SC resolutions on each country.

Model 1: $\text{Number of Articles} = \alpha + \beta_1 * \text{HDI} + \beta_2 * \text{Number of British Soldiers Deployed} + \beta_3 * \text{Foreigners in the UK} + \beta_4 * \text{Distance from London} + \beta_5 * \text{Area} + \beta_6 * \text{Population} + \beta_7 * \text{Budget Expenditure} + \beta_8 * \text{GDP} + \beta_9 * \text{Number of Security Council Resolutions}$

Findings

An OLS regression was run on the model above using the Stata software. The data sample used was a proportion of each country's coverage relative to the sum of all articles, so that comparisons between brands are made possible. From the adjusted R² values, we see that the model explains almost three-quarters of the total variance.

	Daily Mail	Guardian	The Sun
HDI	1.42E-02 ***	8.79E-03 ***	1.53E-02 ***
Number of British soldiers deployed	4.92E-06 ***	3.51E-06 ***	4.24E-06 ***
Foreign minority in the UK	8.37E-08 ***	6.18E-08 ***	6.63E-08 ***
Distance from London	1.08E-07	-2.66E-08	3.32E-08
Area	1.84E-09 ***	1.18E-09 ***	1.89E-09 ***
Population	2.63E-11 ***	1.58E-11 ***	3.49E-11 ***
Budget Expenditure	2.94E-14 ***	2.22E-14 ***	2.99E-14 ***
GDP	-7.11E-15 ***	-2.25E-15 **	-7.94E-15 ***
Security Council resolutions	1.46E-03 **	1.52E-03 ***	1.59E-03 ***
Constant	-9.48E-03 ***	-4.64E-03 ***	-9.50E-03 ***
R ²	64.08%	75.46%	66.82%

Table 1. Estimates of model 1.

Except for H₄ and H₈, all hypotheses were verified. The p-values (see annex 2 for details), indicate that the evidence borne by the coefficients is very robust.

H_4 not being verified does not mean that newsrooms are oblivious to the distance of a country in its coverage. Leaving Australia, New Zealand and South Africa out of the sample, the β_4 coefficients estimates take negative values that are supported by the p-values.

Strikingly, all three newspapers use the same set of criteria when it comes to assessing a country's importance. Most coefficients are close to one another, except for the Guardian's lesser reliance on a country's HDI and lesser coverage of British troops.

Now, we notice a negative correlation between a country's GDP and its coverage. Taking the Guardian as an example, each additional billion dollars poured into the state budget leads to an increase in coverage by 2.5 articles a year. Now, in a rather counter-intuitive way, the model also finds that coverage decreases as GDP (in purchasing power parity) increases. Correlation between the two only stands at 79.8% and therefore does not affect the significance of the results.

Assessing a country's importance on its budget rather than its riches show that The Guardian's (and the other two) newsroom gives more weight to developed countries. The ability to have a large budget stems from sound infrastructure, low corruption and the acceptance of taxes within the population. The data shows that countries with the lowest budget/GDP ratio are also poorest. The Democratic Republic of Congo, Cambodia or Bangladesh display rates below 3%, while the strongest budgets are found in the social democracies of northern Europe (Cuba is an exception).

Let us now examine the 25%-35% variance left unexplained. Once again, coverage is very similar between the three brands. Table 2 shows the eight countries that are most over or under represented according to the model above. Out of a potential 48 names, just six appear only once, revealing similar editorial choices, beyond the nine variables tested.

Rank	The Sun	Residuals	The Guardian	Residuals	The Daily Mail	Residuals
1	Spain	0.0261481	France	0.0304046	France	0.0378199
2	France	0.0218028	Iraq	0.0266128	Iraq	0.0306901
3	South Africa	0.0198471	South Africa	0.0181352	Australia	0.0288237
4	Portugal	0.0196727	New Zealand	0.0125622	China	0.0194619
5	Australia	0.0185812	Spain	0.0113736	South Africa	0.0193919
6	China	0.0168424	Israel	0.0108112	Spain	0.0166482
7	Iraq	0.0166139	China	0.0107554	Israel	0.0151995
8	Israel	0.0164092	Iran	0.0096841	Portugal	0.0132033
163	Bangladesh	-0.0076031	Ivory Coast	-0.0059363	Sudan	-0.0073658
164	Sudan	-0.0077093	Bosnia and Herzegovina	-0.0061143	Netherlands	-0.0095369
165	Afghanistan	-0.008733	Germany	-0.0081434	Bangladesh	-0.0097139
166	United States	-0.0087844	Belgium	-0.0083159	Germany	-0.0129756
167	Netherlands	-0.0103999	Bangladesh	-0.0094154	Canada	-0.0143051
168	Canada	-0.0112987	India	-0.0108	Afghanistan	-0.016132
169	Japan	-0.0131258	Afghanistan	-0.0139888	India	-0.0177404
170	India	-0.0165545	Japan	-0.0158086	Japan	-0.0197049

Table 2. Residuals of the model 1 estimation.

Whereas the intensive coverage of South Africa, New Zealand and Australia can be explained by their strong links with the United Kingdom, not least in the field of rugby and cricket, it is harder to

interpret the preeminence of Spain, France and Israel at the top and that of Japan, Germany and the Netherlands at the bottom. It is hard to think of an objective measure that could justify such editorial choices. What could be considered an important variable, international trade, certainly plays only a limited role in the editorial process. According to the Economist Intelligence Unit (2001), the UK traded 3.4 times more with Germany than with Spain.

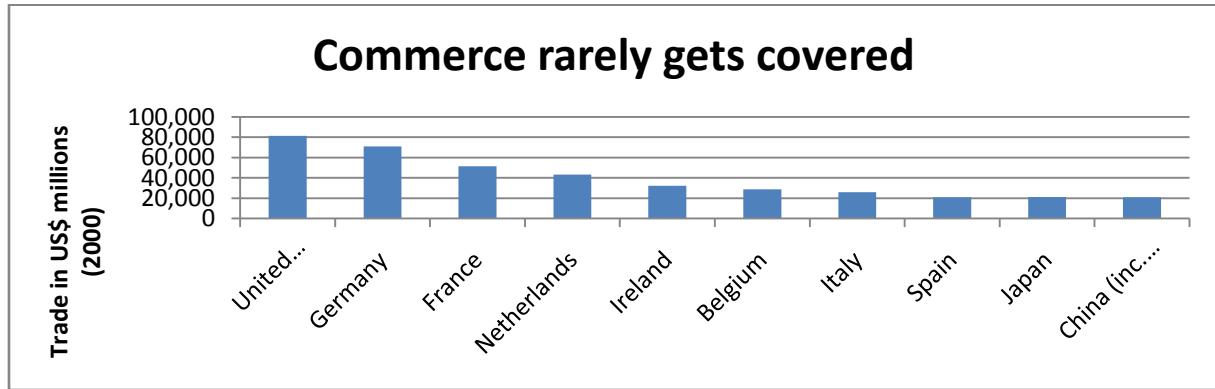


Figure 1. The UK's main trading partners in 2000.

Measuring armed conflicts would not explain the biases either. A low-intensity conflict such as the Israel/Palestine issue (386 deaths in 2007 according to Friedman, 2007) is an editors' favorite but pales when compared to the Darfur massacres (400,000 casualties over four years is a commonly accepted figure).

Interestingly, areas that attract the spotlight for some time fail to build upon their rapidly-gained success. Myanmar, for instance, superstar of all front pages in September 2007, shows negative residuals (i.e. it is less reported on than the model predicts). The difficulty for journalists to produce fresh material from such countries (lack of media infrastructures, political and practical unpleasantness...) might lead to the area's being dropped from the agenda.

One could formulate the hypothesis that newspapers devote more resources covering countries with high quality of life. Journalists could well prefer working in relatively safe, democratic and sunny Barcelona and Tel-Aviv rather than in dangerous Khartoum or unwelcoming Tokyo. Ranking countries on such a subjective scale would require many qualitative interviews to determine the tastes and preferences of journalists. Then we could state with confidence that the news agenda is driven in part (which, from the data above, could amount to 10% of the total variance) by journalists' tastes before any other consideration.

Conclusion

This analysis of each country's relative coverage showed that the news agenda was certainly driven by some objective measures, from land area to population size. The model we used demonstrated that newsrooms favored more developed countries over poorer ones. Despite not being able to test for sport variables, such as the number of games against England each country played, or against trade-related data, well over half the variance was explained. More analysis revealed that different newspapers use very similar tricks when it comes to judging each country's newsworthiness.

A study of the residuals leads to pondering over the journalists' personal tastes in deciding what is *fit to print*, providing yet another argument against Modern Journalism's claim to objectivity.

Annex 1 : Cartograms

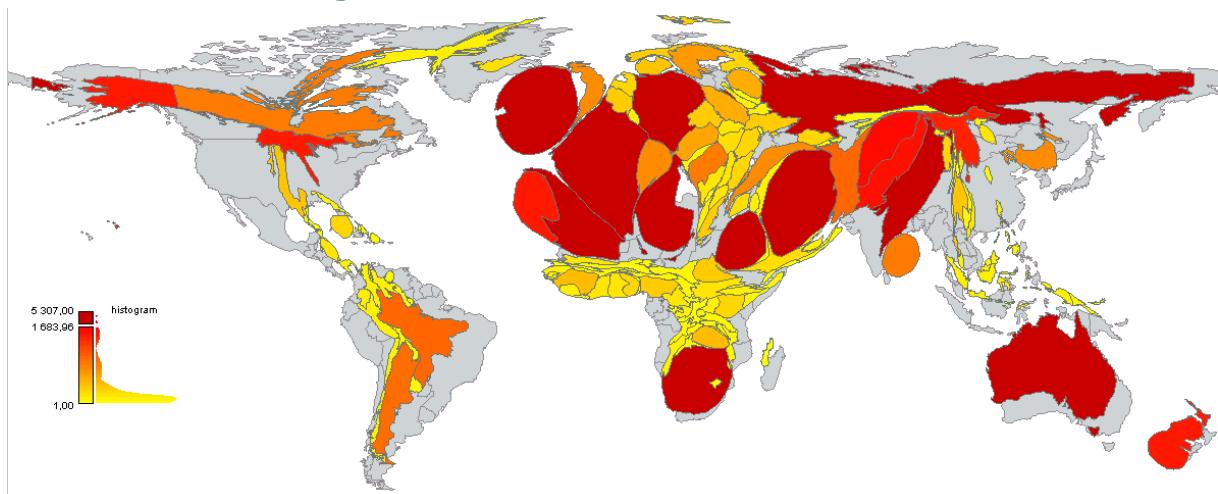


Figure 2. The World according to The Daily Mail

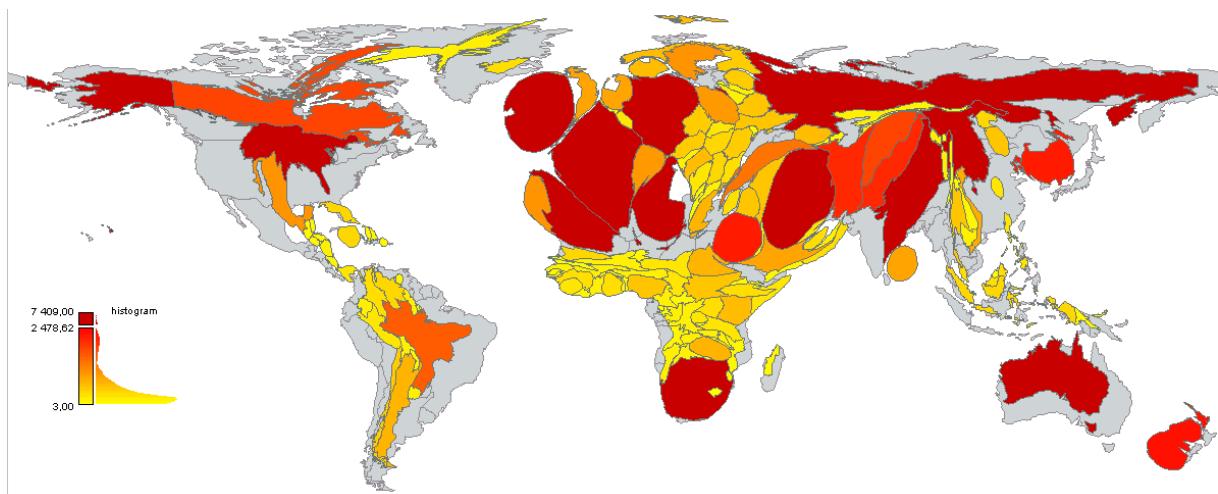


Figure 3. The World according to The Guardian

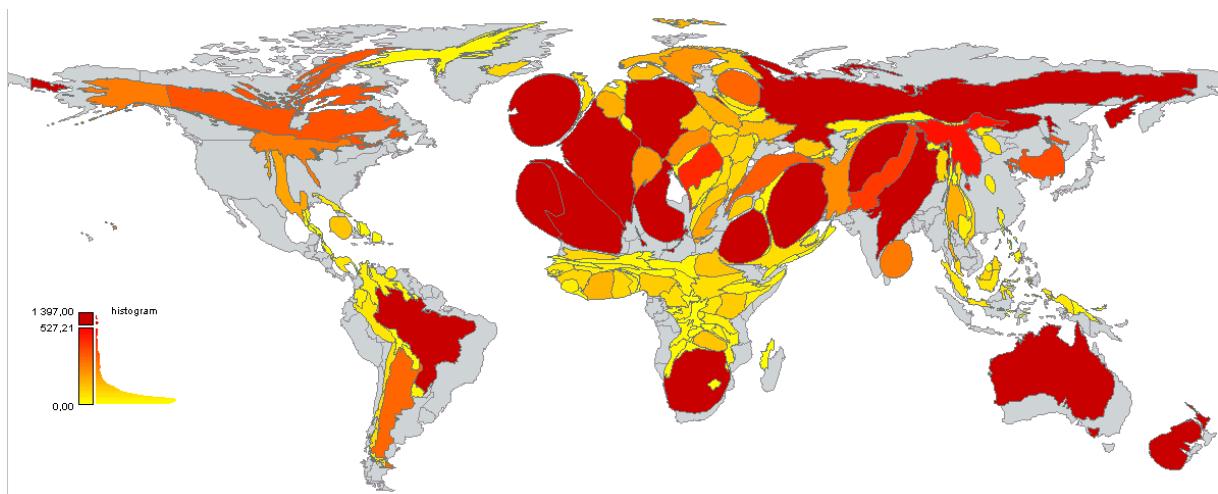


Figure 4. The World according to The Sun

Annex 2: OLS results

The Sun

	Coef.	Std. Err.	t	P> t	[95% Conf.	Interval]
HDI	372.4796	68.25013	5.46		0	237.6923 507.2669
Number of British soldiers deployed	0.1031987	0.017346	5.95		0	0.0689421 0.1374554
Foreign minority in the UK	0.0016148	0.0002091	7.72		0	0.001202 0.0020277
Distance from London	0.0008085	0.0032924	0.25		0.806	-0.0056937 0.0073107
Area	0.0000461	0.00000697	6.61		0	0.0000323 0.0000598
Population	8.51E-07	1.92E-07	4.42		0	0.00000471 0.00000123
Budget Expenditure	7.28E-10	1.01E-10	7.21		0	5.29E-10 9.27E-10
GDP	-1.94E-10	2.93E-11	-6.6		0	-2.51E-10 -1.36E-10
Security Council resolutions	38.63139	13.14814	2.94		0.004	12.66511 64.59767
Constant	-231.3079	57.46596	-4.03		0	-344.7975 -117.8182

Table 1. Estimates of model 1 on nominal data from The Sun

The Daily Mail

	Coef.	Std. Err.	t	P> t	[95% Conf.	Interval]
HDI	1014.087	233.1513	4.35		0	553.6366 1474.538
Number of British soldiers deployed	0.3502269	0.0592562	5.91		0	0.2332017 0.4672521
Foreign minority in the UK	0.0059622	0.0007142	8.35		0	0.0045517 0.0073727
Distance from London	0.0077199	0.0112474	0.69		0.493	-0.0144925 0.0299324
Area	0.0001307	0.0000238	5.49		0	0.0000837 0.0001777
Population	0.00000187	6.57E-07	2.85		0.005	0.000000572 0.00000317
Budget Expenditure	2.1E-09	3.45E-10	6.08		0	1.41E-09 2.78E-09
GDP	-5.06E-10	1E-10	-5.05		0	-7.04E-10 -3.08E-10
Security Council resolutions	103.8367	44.91575	2.31		0.022	15.13253 192.5409
Constant	-675.0815	196.3112	-3.44		0.001	-1062.777 -287.3862

Table 1. Estimates of model 1 on nominal data from The Daily Mail

The Guardian

Colonne1	Coef.	Std. Err.	t	P> t	[95% Conf.	Interval]
HDI	1017.28	275.7782	3.69		0	472.645 1561.915
Number of British soldiers deployed	0.4059995	0.07009	5.79		0	0.2675787 0.5444203
Foreign minority in the UK	0.0071517	0.0008448	8.47		0	0.0054833 0.0088201
Distance from London	-0.0030774	0.0133037	-0.23		0.817	-0.0293509 0.0231961
Area	0.000137	0.0000281	4.87		0	0.0000814 0.0001926
Population	0.00000183	7.77E-07	2.35		0.02	0.000000292 0.00000336
Budget Expenditure	2.56E-09	4.08E-10	6.29		0	1.76E-09 3.37E-09
GDP	-2.61E-10	1.19E-10	-2.2		0.029	-4.95E-10 -2.68E-11
Security Council resolutions	175.6671	53.12767	3.31		0.001	70.7452 280.589
Constant	-537.409	232.2027	-2.31		0.022	-995.9864 -78.83162

Table 1. Estimates of model 1 on nominal data from The Guardian

References

Fay Lomax Cook, Tom R. Tyler, Edward G. Goetz, Margaret T. Gordon, David Protess, Donna R. Leff, Harvey L. Molotch (1983), *Media and Agenda Setting: Effects on the Public, Interest Group Leaders, Policy Makers, and Policy. The Public Opinion Quarterly*, Vol. 47, No. 1 (Spring), pp. 16-35.

Economic Intelligence Unit (2001) Country Commerce United Kingdom 2000. London.

Matti Friedman, (2007) Israel-Palestinians Deaths Drop in 2007, Associated Press.

Jarol B. Manheim, Robert B. Albritton (1984) *Changing National Images: International Public Relations and Media Agenda Setting. The American Political Science Review*, Vol. 78, No. 3 (Sep.), pp. 641-657.

David Mindich, (1998) Just the Facts: How “Objectivity” Came to Define American Journalism. New York University Press.