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Bias in the Israeli Broadcast Media
1994-2004

Abraham Gur

Dr. Abraham Gur, B. General (Res.), former Head of the Logistics Brigade in the Israeli Army Headquarters, received an MBA from the Florida Institute of Technology and a Ph.D. in Political Studies and Communication from Bar-Ilan University. His thesis topic was “Media Bias: The Israeli Media and the Oslo Peace Process 1994-2004”. AG will be joining the faculty of the University Center in Ariel in the Department of Communications.
Executive Summary

Media bias is one of the most controversial issues in political and professional circles and is also one of the most neglected topics in communication research, particularly in empirical research. Niven’s observation of a few years ago, that little research has subjected allegations of bias to meaningful tests is still true today.¹ Most existing studies do not provide operational definitions of bias; they employ a variety of methods and approaches and present contradictory and confusing results. Many studies have attempted to find a bias in favor of a liberal or conservative ideology or rival parties such as the Democratic and the Republican parties in the US. Several scholars have examined bias via input, while others assessed output. A few studies have dealt with public perceptions of bias. Several have offered general statements, while others preferred specific case studies. A number of studies present direct observations made by participants in the news-making process, while others present empirical results based on interviews, surveys, content analysis and public opinion polls.

This work departs from existing directions in bias research. It examines bias in commentary and analysis of events, personalities and processes, and it offers a new methodology to accomplish this task. In today’s complex world, commentary has become a major function in providing adequate context, specific explanations, policy considerations as well as alternative policies. The public demands to understand and not only to know what is happening. The media has recognized this need and devotes considerable space and time to commentary. Outstanding commentators enjoy prestigious status in journalism and those who have syndication contracts are well-known beyond their specific media outlet.

This work applies the new methodology to the case study of the Oslo Peace Process, 1994-2004. We examine the Israeli mainstream broadcast media over a period of 10½ years: Two television channels (Channels 1 and 2) and two radio stations (The Voice of Israel and the Israeli Army Radio stations).

In this work I examined whether the media was biased or balanced, and made a comparison between the periods of the Labor Governments (1994-1996 and 1999-2001) and those of the Likud Governments (1996-1999 and 2001-2004).

Methodology

Measuring bias in media commentary requires analysis of parameters that media professionals directly control. Professionals include editors, producers and moderators. In the broadcast media they select interviewees and participants for the talk shows and panel discussions, and allocate time, in minutes, to each. Thus, in order to detect bias it is necessary to identify the political beliefs of the participants and to measure the time, in minutes, allocated to each.

The first step in the proposed methodology is to classify commentators into two main blocs: Ideological/political and neutral/centrist. Neutral commentators don’t subscribe to any political platform, while centrist commentators present views of the political center. In the US for example, those would be expressed by “independent” voters. The political map in many liberal democracies includes centrist parties. Currently, for example, “Kadima” is a centrist party in Israel located between the Left and the Right. In the following pages neutral/centrist commentators will be referred to as non-political.

The second step is to classify the political commentators into rival camps, such as liberal and conservative or Left and Right. Several techniques are employed to identify the commentators’ political affiliations.

The first group includes known members of political parties, movements and organizations.

The second includes individuals known to regularly represent a particular political viewpoint.

The third group includes occasional contributors whose affiliations are identified by the broadcast media in introductory announcements made by presenters and moderators.

The fourth group includes individuals who clearly do not subscribe to any specific school and therefore are reassigned to the non-political bloc.

The fifth group includes commentators whose affiliation is unclear. A list of these individuals is presented for identification to a panel of three highly knowledgeable experts on the political system. Reliable identification requires full agreement among the three experts. Those who could not be politically identified are reassigned to the non-political category.

In the proposed methodology, bias in the broadcast media is measured through two variables: Affiliation and time. The variables are under media control. The procedure which applies to commentators selected to appear in the broadcast media; and the professionals control the amount of time each person receives. In the next sections, commentators in the broadcast media are referred to as “participants”. Raw data for the analysis may include all news broadcasts. However, if the volume is too heavy, researchers may select valid samples of broadcasts. If the research period stretches for a long time (years), the valid sample is two full months per year, selected randomly.
The new formula suggested here, to measure bias in media commentary, includes four components: Political Ratio, Access Ratio, Balance Ratio and Bias Ratio.

**Political Ratio (PR)** refers to the ratio between the numbers of political vs. non-political participants, and between the time in minutes allocated to political blocs vs. non-political blocs. It is reasonable to demand that the number of political blocs in the two parameters should be at least 65%.

**Access Ratio (AR)** refers to the ratio between the number of participants from one political bloc vs. the number of participants representing the rival bloc.

**Balance Ratio (BR)** refers to the ratio in minutes allocated to participants representing rival blocs.

**Bias Ratio (BIR)** refers to an amalgamation of the AR and the BR in percentages. Balance exists when the BIR between the political blocs is 1. For the purposes of this work however, balance would exist if the BIR runs between 0.9 and 1.1. Any result beyond this range would indicate bias.

**The Israeli Media and the Oslo Peace Process: A Case Study**

We chose to demonstrate the utility of the proposed new methodology by applying it to the functioning of the Israeli media during the “Oslo Peace Process”; beginning in 1993, when the Left-led Israeli government and the Palestine Liberation Organization (PLO) signed a breakthrough agreement designed to end the Israeli-Palestinian conflict (Savir, 1998). The Israeli government still adheres to the Oslo Peace Process, more than 14 years after the “Declaration of Principles” was signed by the Israelis and the Palestinians on the White House lawn.

In Israel, the agreement was a source of controversy. The Left enthusiastically endorsed it while the Right vehemently opposed it. The debate was especially bitter during the initial phase of the process from the Cairo Agreement of May 1994, that allowed PLO Chairman Yassir Arafat to enter the Palestinian territories and establish the Palestinian Authority, until the elections of May 1996, which turned the government over to the Right. Relations between the Left and the Right worsened following the assassination of Prime Minister Yitzchak Rabin by a rightist zealot in November 1995. Benjamin Netanyahu defeated Rabin’s successor Shimon Peres in the May 1996 elections and formed a Right-led coalition government. This Right-led coalition signed two controversial agreements with the Palestinians: The “Hebron Agreement” in January 1997, and the “Wye Plantation Agreement” in October 1998. In the elections of May 1999, Ehud Barak defeated Netanyahu and formed a Left-led coalition government. Barak and his leftist government failed to reach an agreement with the Palestinians at the Camp-David Summit in July 2000. In September 2000, the violence began, and the “second Intifada”, initiated by the Palestinians, broke out. The Israelis called it a “War against Terrorism”, the Palestinians called it “Intifada”.

This war froze the active peace process. The February 2001 elections, brought to power a right–wing Prime Minister, Ariel Sharon, who formed a national unity government which lasted through his first two years in power. After winning the January 2003 elections, Sharon formed a right-center government. The Intifada continued; the peace process was still moving in slow motion, from one initiative to another, when a new plan, introduced by US President Bush, was introduced. This plan, the “Road Map”, is still on the table today (early 2008).
In October 2004, the most influential person in the “Oslo Peace Process”, “left the stage”, as the Palestinians’ most popular leader, Yassir Arafat, left the Palestinian territory on his way to his death in an army hospital in Paris.

For this case study, we chose to focus on the period from May 1994 (the entrance of the Palestinian Authority to Judea, Samaria and Gaza) through October 2004 (when Arafat left the area). We divided this decade into four secondary periods, according to the political nature of the Israeli government:

**First Period: May 1994-May 1996** – Leftist government, led by PM Rabin and his successor Peres.


**Third Period: May 1999-February 2001** – Leftist government led by PM Barak.

**Fourth Period: February 2001-October 2004** – National Unity government (2003), and Right/Center government, both led by Prime Minister, Sharon leader of the Right.

The case study examines whether commentary in the Israeli broadcast media during the Oslo process (May 1994-October 2004) was balanced or biased.

The broadcast media selected for this case study includes two television channels: The public Channel 1 and the commercial Channel 2. The Radio stations we chose were the two most popular stations, both public: The Voice of Israel, and the Israel Army Radio.

All these media organizations are considered mainstream media. We examined commentaries made on all relevant television programs aired on Channel 1 and Channel 2 between May 1994 and October 2004, including the daily evening news, weekly newsreels, talk shows and panel discussions.

The sampling standard unit for this research is one full month. All the sampling months for the research period total 45 months for each of the television channels.

Radio programs monitored, include the daily and weekly newsreels and talk shows; all the sampling months for the entire period total 23 months for each radio station.

The sampling includes two full months per year of the radio stations, but for the television channels, we increased the number of the months due to insufficient data (see appendix A). Most of the months were chosen randomly, but years in which special events, concerning the Oslo peace process occurred we chose specific months (details in appendix A).

**Television**

**Channel 1 (Public Television Station)**

Tables 1 and 2 provide the data needed for the formula application to the broadcast media including political affiliation, number of participants, time in minutes and average time for a participant. The affiliation column includes three categories: Left, Right and non-political.
Table 1: Channel 1

<table>
<thead>
<tr>
<th>Political Affiliation</th>
<th>Number of Participants</th>
<th>Time in Minutes</th>
<th>Average Time Per Participant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Left</td>
<td>1,348</td>
<td>3,228</td>
<td>2.4</td>
</tr>
<tr>
<td>Right</td>
<td>871</td>
<td>1,667</td>
<td>1.9</td>
</tr>
<tr>
<td>Non-Political</td>
<td>498</td>
<td>696</td>
<td>1.4</td>
</tr>
<tr>
<td>Total</td>
<td>2,717</td>
<td>5,591</td>
<td>2.1</td>
</tr>
</tbody>
</table>

***P<0.001

PR. Total number of participants = 2,717; total number of political participants = 2,219; number of non-political participants = 498; political vs. non-political participants ratio = 81.7% – well exceeding the required 65% PR threshold. Total time in minutes: 5,591; total time in minutes allocated to political participants = 4,895; time allocated to non-political participants = 696; political vs. non-political time ratio = 87.6%, well exceeding the required 65% PR threshold.

AR. Total Left participants = 1,348 (q1); total Right participants = 871 (q2). The ratio between the numbers of participants representing each political bloc = x.
Lx = q1/2,717 = 1,348/2,717 = 0.496; Rx = q2/2,717 = 871/2,717 = 0.321.

AR = Lx/Rx = 0.496/0.321 = 1.55. Balance value is 1 and therefore, for every Right participant in news television programs there were 1.55 Left participants.

BR. Total minutes allocated to Left participants = 3,228 (q1); total minutes allocated to Right participants = 1,667 (q2). The ratio between the total number of minutes allocated to participants representing each political bloc = x.
Lx = q1/5,591 = 3,228/5,591 = 0.577; Rx = q2/5,591 = 1,667/5,591 = 0.299.

BR = Lx/Rx = 0.577/0.299 = 1.93. Balance value is 1 and therefore, for every one minute allocated to Right participants in news television programs Left participants were given 1.93 minutes. Also, Table 1 reveals that the average time in minutes allocated to Left commentators (2.4) was much higher than the same average allocated to Right commentators (1.9), while the average allocated to non-political commentators was the lowest (1.4).

BIR = [(AR + BR)/2 - 1] 100. BIR = (1.55 + 1.93)/2 = 1.74; BIR = 1.74 - 1 = 0.74 x100 = 74%. This figure shows that during the two terms of the Labor Government during the Oslo Peace Process, commentaries on Israel’s Channel 1 were biased in favor of the Left by a 74% ratio.
Table 2: Channel 1

<table>
<thead>
<tr>
<th>Political Affiliation</th>
<th>Number of Participants</th>
<th>Time in Minutes</th>
<th>Average Time Per Participant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Left</td>
<td>2,219</td>
<td>5,839</td>
<td>2.63</td>
</tr>
<tr>
<td>Right</td>
<td>1,681</td>
<td>4,096</td>
<td>2.44</td>
</tr>
<tr>
<td>Non-Political</td>
<td>954</td>
<td>1,704</td>
<td>1.79</td>
</tr>
<tr>
<td>Total</td>
<td>4,854</td>
<td>11,639</td>
<td>2.4</td>
</tr>
</tbody>
</table>

***P<0.001

PR. Total number of participants = 4,854; total number of political participants = 3,900; number of non-political participants = 954; political vs. non-political participants ratio = 80.3% – well exceeding the required 65% PR threshold. Total time in minutes = 11,639; total time in minutes allocated to political participants = 9,935; time allocated to non-political participants = 1,704; political vs. non-political time ratio = 85.4%, well exceeding the required 65% PR threshold.

AR. Total Left participants = 2,219 (q1); total Right participants = 1,681 (q2). The ratio between the numbers of participants representing each political bloc = x.

\[ Lx = \frac{q1}{q1} = \frac{2,219}{4,854} = 0.457; \quad Rx = \frac{q2}{q2} = \frac{1,681}{4,854} = 0.346. \]

\[ AR = \frac{Lx}{Rx} = \frac{0.457}{0.346} = 1.32. \] Balance value is 1 and therefore, for every Right participant in news television programs there were 1.32 Left participants.

BR. Total minutes allocated to Left participants = 5,839 (q1); total minutes allocated to Right participants = 4,096 (q2). The ratio between the total number of minutes allocated to participants representing each political bloc = x.

\[ Lx = \frac{q1}{q1} = \frac{5,839}{11,639} = 0.5; \quad Rx = \frac{q2}{q2} = \frac{4,096}{11,639} = 0.352. \]

\[ BR = \frac{Lx}{Rx} = \frac{0.5}{0.352} = 1.42. \] Balance value is 1 and therefore, for every one minute allocated to Right participants in news television programs, Left participants were given 1.42 minutes. Also, Table 2 reveals that the average time in minutes allocated to Left commentators (2.63) was higher than the same average allocated to Right commentators (2.44), while the average allocated to non-political commentators was the lowest (1.79).

\[ BIR = \left( \frac{AR + BR}{2} - 1 \right) 100. \] \[ BIR = (1.32 + 1.42)/2 = 1.37; \quad BIR = 1.37 - 1 = 0.37 \times 100 = 37\%. \] This figure shows that during the two terms of the Likud Government during the Oslo Peace Process, commentaries on Israel’s Channel 1 were biased in favor of the Left by a 37% ratio.
### Channel 2 (Commercial Television Station)

Tables 3 and 4 provide the data needed for the formula application to the broadcast media including political affiliation, number of participants, time in minutes and average time for a participant. The affiliation column includes three categories: Left, Right and non-political.

#### Table 3: Channel 2

<table>
<thead>
<tr>
<th>Political Affiliation</th>
<th>Average Time Per Participant</th>
<th>Time in Minutes</th>
<th>Number of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Left</strong></td>
<td>5.02</td>
<td>2,490</td>
<td>496</td>
</tr>
<tr>
<td><strong>Right</strong></td>
<td>4.22</td>
<td>1,356</td>
<td>321</td>
</tr>
<tr>
<td><strong>Non-Political</strong></td>
<td>2.13</td>
<td>519</td>
<td>244</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>4.11</td>
<td>4,365</td>
<td>1,061</td>
</tr>
</tbody>
</table>

***P<0.001

**PR.** Total number of participants = 1,061; total number of political participants = 817; number of non-political participants = 244; political vs. non-political participants ratio = 77% – well exceeding the required 65% PR threshold. Total time in minutes = 4,365; total time in minutes allocated to political participants = 3,846; time allocated to non-political participants = 519; political vs. non-political time ratio = 88.1%, well exceeding the required 65% PR threshold.

**AR.** Total Left participants = 496 (q1); total Right participants = 321 (q2). The ratio between the numbers of participants representing each political bloc = x.

\[
L_x = q_1/1,061 = 496/1,061 = 0.467; \quad R_x = q_2/1,061 = 321/1,061 = 0.303.
\]

\[
AR = L_x/R_x = 0.467/0.303 = 1.54.\quad \text{Balance value is 1 and therefore, for every Right participant in news television programs there were 1.54 Left participants.}
\]

**BR.** Total minutes allocated to Left participants = 2,490 (q1); total minutes allocated to Right participants = 1,356 (q2). The ratio between the total number of minutes allocated to participants representing each political bloc = x.

\[
L_x = q_1/4,365 = 2,490/4,365 = 0.57; \quad R_x = q_2/4,365 = 1,356/4,365 = 0.313.
\]

\[
BR = L_x/R_x = 0.57/0.313 = 1.82.\quad \text{Balance value is 1 and therefore, for every one minute allocated to Right participants in news television programs, Left participants were given 1.82 minutes. Also, table 3 reveals that the average time in minutes allocated to Left commentators (5.02) was higher than the same average allocated to Right commentators (4.22), while the average allocated to non-political commentators was much lower (2.13).}
\]

\[
BIR = [(AR + BR)/2 - 1] 100. \quad BIR = (1.54 + 1.82)/2 = 1.68; \quad BIR = 1.68 - 1 = 0.68 \times 100 = 68\%.\quad \text{This figure shows that during the two terms of the Labor Government during the Oslo Peace Process, commentaries on Israel’s Channel 2 were biased in favor of the Left by a 68% ratio.}
\]
Table 4: Channel 2

<table>
<thead>
<tr>
<th>Political Affiliation</th>
<th>Number of Participants</th>
<th>Time in Minutes</th>
<th>Average Time Per Participant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Left</td>
<td>1,615</td>
<td>4,323</td>
<td>2.68</td>
</tr>
<tr>
<td>Right</td>
<td>1,236</td>
<td>2,721</td>
<td>2.2</td>
</tr>
<tr>
<td>Non-Political</td>
<td>407</td>
<td>1,394</td>
<td>3.42</td>
</tr>
<tr>
<td>Total</td>
<td>3,258</td>
<td>8,438</td>
<td>2.59</td>
</tr>
</tbody>
</table>

***P<0.001

PR. Total number of participants = 3,258; total number of political participants = 2,851; number of non-political participants = 407; political vs. non-political participants ratio = 87.5% – well exceeding the required 65% PR threshold. Total time in minutes: 8,438; total time in minutes allocated to political participants = 7,044; time allocated to non-political participants = 1,394; political vs. non-political time ratio = 83.48%, well exceeding the required 65% PR threshold.

AR. Total Left participants = 1,615 (q1); total Right participants = 1,236 (q2). The ratio between the numbers of participants representing each political bloc = x.

\[ L_x = q1/3,258 = 1,615/3,258 = 0.496; \]
\[ R_x = q2/3,258 = 1,236/3,258 = 0.379. \]

\[ AR = L_x/R_x = 0.496/0.379 = 1.31. \] Balance value is 1 and therefore, for every Right participant in news television programs there were 1.31 Left participants.

BR. Total minutes allocated to Left participants = 4,323 (q1); total minutes allocated to Right participants = 2,721 (q2). The ratio between the total number of minutes allocated to participants representing each political bloc = x.

\[ L_x = q1/8,438 = 4,323/8,438 = 0.51; \]
\[ R_x = q2/8,438 = 2,721/8,438 = 0.322. \]

\[ BR = L_x/R_x = 0.51/0.322 = 1.58. \] Balance value is 1 and therefore, for every one minute allocated to Right participants in news television programs, Left participants were given 1.58 minutes. Also, table 4 reveals that the average time in minutes allocated to Left commentators (2.68) was higher than the same average allocated to Right commentators (2.2), while the average allocated to non-political commentators was the highest (3.42). The reason for this result could be the small portion of the non-political participants, only 12.5% of the total participants.

\[ BIR = [(AR + BR)/2 -1] 100. BIR = (1.31 + 1.58)/2 = 1.445; BIR = 1.445 -1 = 0.445 \times 100 = 44.5%. \] This figure shows that during the two terms of the Likud Government during the Oslo Peace Process, commentaries on Israel’s Channel 2 station were biased in favor of the Left by a 44.5% ratio.
Radio

Public Radio Voice of Israel

Tables 5 and 6 provide the data needed for the formula application to the broadcast media including political affiliation, number of participants, time in minutes and average time for a participant. The affiliation column includes three categories: Left, Right and non-political.

Table 5: Voice of Israel

<table>
<thead>
<tr>
<th></th>
<th>Number of Participants</th>
<th>Time in Minutes</th>
<th>Average Time Per Participant</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Political Affiliation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Left</td>
<td>3,625</td>
<td>13,758</td>
<td>3.8</td>
</tr>
<tr>
<td>Right</td>
<td>1,634</td>
<td>7,076</td>
<td>4.3</td>
</tr>
<tr>
<td>Non-Political</td>
<td>2,452</td>
<td>7,850</td>
<td>3.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>7,711</td>
<td>28,684</td>
<td>3.7</td>
</tr>
</tbody>
</table>

***P<0.001

PR. Total number of participants: 7,711. Total number of political participants = 5,259; Number of non-political participants = 2,452. Political vs. non-political participants ratio = 68.2% - exceeding the required 65% PR threshold. Total time in minutes: 28,684; total time in minutes allocated to political participants= 20,834; Time allocated to non-political participants= 7,850. Political vs. non-political time ratio = 72.7%, exceeding the required 65% PR threshold.

AR. Total Left participants = 3,625 (q1). Total Right participants = 1,634 (q2). The ratio between the numbers of participants representing each political bloc = x.

\[
L_x = \frac{q_1}{7,711} = \frac{3,625}{7,711} = 0.47; \quad Rx = \frac{q_2}{7,711} = \frac{1,634}{7,711} = 0.212.
\]

\[
AR = \frac{L_x}{Rx} = \frac{0.47}{0.212} = 2.22.\]

Balance value is 1 and therefore, for every Right participant in radio programs there were 2.22 Left participants.

BR. Total minutes allocated to Left participants = 13,758 (q1). Total minutes allocated to Right participants = 7,076 (q2). The Ratio between the total number of minutes allocated to participants representing each political bloc = x.

\[
L_x = \frac{q_1}{28,684} = \frac{13,758}{28,684} = 0.48; \quad Rx = \frac{q_2}{28,684} = \frac{7,076}{28,684} = 0.247.
\]

\[
BR = \frac{L_x}{Rx} = \frac{0.48}{0.247} = 1.94.\]

Balance value is 1 and therefore, for every one minute allocated to Right participants in radio programs Left participants were given 1.94 minutes. Also, table 5 reveals that the average time in minutes allocated to Left commentators (3.8) was lower than the same average allocated to Right commentators (4.3), while the average allocated to non-political commentators was the lowest (3.2).
BIR = [(AR + BR)/2 - 1] \times 100. BIR = (2.22 + 1.94)/2 = 2.08; BIR = 2.08 - 1 = 1.08 \times 100 = 108\%. This figure shows that during the two terms of the Labor Government during Oslo peace process, commentary on Israeli public radio Voice of Israel was biased in favor of the Left by a 108\% ratio.

Table 6: Voice of Israel

<table>
<thead>
<tr>
<th>Political Affiliation</th>
<th>Number of Participants</th>
<th>Time in Minutes</th>
<th>Average Time Per Participant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Left</td>
<td>2,413</td>
<td>11,905</td>
<td>4.9</td>
</tr>
<tr>
<td>Right</td>
<td>1,848</td>
<td>8,262</td>
<td>4.5</td>
</tr>
<tr>
<td>Non-Political</td>
<td>2,309</td>
<td>10,708</td>
<td>4.6</td>
</tr>
<tr>
<td>Total</td>
<td>6,570</td>
<td>30,875</td>
<td>4.7</td>
</tr>
</tbody>
</table>

***P<0.001

**PR.** Total number of participants: 6,570. Total number of political participants = 4,261; Number of non-political participants = 2,309. Political vs. non-political participants ratio = 65\% - met the required 65\% PR threshold. Total time in minutes: 30,875; total time in minutes allocated to political participants = 20,167; Time allocated to non-political participants = 10,708. Political vs. non-political time ratio = 65.3\%, exceeding the required 65\% PR threshold.

**AR.** Total Left participants = 2,413 (q1). Total Right participants = 1,848 (q2). The ratio between the numbers of participants representing each political bloc = x.

\[ Lx = q1/6,570 = 2,413/6,570 = 0.367; Rx = q2/6,570 = 1,848/6,570 = 0.281. \]

\[ AR = Lx/Rx = 0.367/0.281 = 1.31. \] Balance value is 1 and therefore, for every Right participant in radio programs there were 1.31 Left participants.

**BR.** Total minutes allocated to Left participants = 11,905 (q1). Total minutes allocated to Right participants = 8,262 (q2). The ratio between the total number of minutes allocated to participants representing each political bloc = x.

\[ Lx = q1/30,875 = 11,905/30,875 = 0.386; Rx = q2/30,875 = 8,262/30,875 = 0.268. \]

\[ BR = Lx/Rx = 0.386/0.268 = 1.44. \] Balance value is 1 and therefore, for every one minute allocated to Right participants in radio programs Left participants were given 1.44 minutes. Also, table 6 reveals that the average time in minutes allocated to Left commentators (4.9) was higher than the same average allocated to Right commentators (4.5), while the average allocated to non-political commentators was higher than that allocated to the right commentators (4.6).
BIR = [(AR + BR)/2 - 1] × 100. BIR = (1.31 + 1.44)/2 = 1.375; BIR = 1.375 -1 = 0.375 ×100 = 37.5%. This figure shows that during the two terms of the Likud Government during Oslo peace process, commentary on Israeli public radio Voice of Israel was biased in favor of the Left by a 37.5% ratio.

Israel Army Radio

Tables 7 and 8 provide the data needed for the formula application to the broadcast media including political affiliation, number of participants, time in minutes and average time for a participant. The affiliation column includes three categories: Left, Right and non-political.

Table 7: Israel Army Radio

<table>
<thead>
<tr>
<th>Political Affiliation</th>
<th>Number of Participants</th>
<th>Time in Minutes</th>
<th>Average Time Per Participant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Left</td>
<td>871</td>
<td>8,582</td>
<td>9.9</td>
</tr>
<tr>
<td>Right</td>
<td>577</td>
<td>5,208</td>
<td>9.0</td>
</tr>
<tr>
<td>Non-Political</td>
<td>534</td>
<td>3,226</td>
<td>6.0</td>
</tr>
<tr>
<td>Total</td>
<td>1,982</td>
<td>17,016</td>
<td>8.6</td>
</tr>
</tbody>
</table>

***P<0.001

PR. Total number of participants: 1,982. Total number of political participants = 1,448; Number of non-political participants = 534. Political vs. non-political participants ratio = 73.1% - well exceeding the required 65% PR threshold. Total time in minutes: 17,016; total time in minutes allocated to political participant = 13,790; Time allocated to non-political participants = 3,226. Political vs. non-political time ratio = 81% - well exceeding the required 65% PR threshold.

AR. Total Left participants = 871 (q1). Total Right participants = 577 (q2). The ratio between the numbers of participants representing each political bloc = x.
Lx = q1/1,982 = 871/1,982 = 0.44; Rx = q2/1,982 = 577/1,982 = 0.29.
AR = Lx/Rx = 0.44/0.29 = 1.52. Balance value is 1 and therefore, for every Right participant in radio programs there were 1.52 Left participants.

BR. Total minutes allocated to Left participants = 8,582 (q1). Total minutes allocated to Right participants = 5,208 (q2). The Ratio between the total number of minutes allocated to participants representing each political bloc = x.
Lx = q1/17,016 = 8,582/17,016 = 0.5; Rx = q2/17,016 = 5,208/17,016 = 0.31.
BR = Lx/Rx = 0.5/0.31 = 1.6. Balance value is 1 and therefore, for every one minute allocated to Right participants in radio programs Left participants were given 1.6 minutes.
Also, table 7 reveals that the average time in minutes allocated to Left commentators (9.9) was higher than the same average allocated to Right commentators (9.0), while the average allocated to non-political commentators was the lowest (6.0).

\[ \text{BIR} = \frac{(\text{AR} + \text{BR})}{2} - 1 \times 100 \]

\[ \text{BIR} = \frac{(1.52 + 1.6)}{2} = 1.56; \text{BIR} = 1.56 - 1 = 0.56 \times 100 = 56\% \]. This figure shows that during the two terms of the Labor Government during Oslo peace process, commentary on *Israel Army Radio* was biased in favor of the Left by a 56% ratio.

### Table 8: Israel Army Radio

<table>
<thead>
<tr>
<th>Political Affiliation</th>
<th>Number of Participants</th>
<th>Time in Minutes</th>
<th>Average Time Per Participant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Left</td>
<td>962</td>
<td>7,976</td>
<td>8.3</td>
</tr>
<tr>
<td>Right</td>
<td>727</td>
<td>5,828</td>
<td>8.0</td>
</tr>
<tr>
<td>Non-Political</td>
<td>721</td>
<td>4,467</td>
<td>6.2</td>
</tr>
<tr>
<td>Total</td>
<td>2,410</td>
<td>18,271</td>
<td>7.6</td>
</tr>
</tbody>
</table>

***P<0.001

**PR.** Total number of participants: 2,410. Total number of political participants = 1,689; Number of non-political participants = 721. Political vs. non-political *participants ratio* = 70% - well exceeding the required 65% PR threshold. Total time in minutes: 18,271; total time in minutes allocated to political participants = 13,804; Time allocated to non-political participants = 4,467. Political vs. non-political *time ratio* = 75.6% - well exceeding the required 65% PR threshold.

**AR.** Total Left participants = 962 (q1). Total Right participants = 727 (q2). The ratio between the numbers of participants representing each political bloc = x.

\[ Lx = \frac{q1}{2,410} = \frac{962}{2,410} = 0.4; Rx = \frac{q2}{2,410} = \frac{727}{2,410} = 0.3. \]

\[ \text{AR} = \frac{Lx}{Rx} = 0.4/0.3 = 1.33. \] Balance value is 1 and therefore, for every Right participant in radio programs there were 1.33 Left participants.

**BR.** Total minutes allocated to Left participants = 7,976 (q1). Total minutes allocated to Right participants = 5,828 (q2). The Ratio between the total number of minutes allocated to participants representing each political bloc = x.

\[ Lx = \frac{q1}{18,271} = \frac{7,976}{18,271} = 0.437; Rx = \frac{q2}{18,271} = \frac{5,828}{18,271} = 0.319. \]

\[ \text{BR} = \frac{Lx}{Rx} = 0.437/0.319 = 1.37. \] Balance value is 1 and therefore, for every one minute allocated to Right participants in radio programs Left participants were given 1.37 minutes. Also, table 8 reveals that the average time in minutes allocated to Left commentators (8.3) was higher than the same average allocated to Right commentators (8.0), while the average allocated to non-political commentators was the lowest (6.2).
BIR = [(AR + BR)/2 - 1] 100. BIR = (1.33 + 1.37)/2 = 1.35; BIR = 1.35 - 1 = 0.35 x100 = 35%. This figure shows that during the two terms of the Labor Government during Oslo peace process, commentary on *Israel Army Radio* was biased in favor of the Left by a 35% ratio.

**Conclusion**

Broadcast media conclusion of bias results:

**Table 9: Results***

<table>
<thead>
<tr>
<th>Channel</th>
<th>Labor Governments</th>
<th>Likud Governments</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>TV 1</td>
<td>74%</td>
<td>37%</td>
<td>55.5%</td>
</tr>
<tr>
<td>TV 2</td>
<td>68%</td>
<td>44.5%</td>
<td>56.25%</td>
</tr>
<tr>
<td>Radio: Voice of Israel</td>
<td>108%</td>
<td>37.5%</td>
<td>72.75%</td>
</tr>
<tr>
<td>Israel Army Radio</td>
<td>56%</td>
<td>35%</td>
<td>45.5%</td>
</tr>
</tbody>
</table>

***P<0.001

* All the results are in favor of the Left.

Table 9 demonstrates that the broadcast media results of the four media organizations during the ten and half years of the Oslo Peace Process reached the following conclusions:

A. All four media organizations were biased in favor of the Left.

B. All of the bias results increased during the period of the Labor Governments and decreased during the reign of the Likud Governments.

These conclusions validate important points:

1. The assumption that most of the journalists have a leftist point of view, and

2. It validates the indexing hypothesis (Bennet, 1990), which claims that the media are merely indexing the range of opinions held by senior government officials. Thus, the wide consensus within the government would be reflected in the media coverage.
Appendix A

The Chosen Months

1. Television Channels 1 and 2
   
   1994 – May, November.
   
   1995 – March, April, May, June, July and November.
   
   1996 – March, April and May.

2. Radio: Voice of Israel
   
   1994 – May, October.
   
   1995 – May, November.
   
   1996 – May.

3. Israel Army Radio
   
   1994 – May, November.
   
   1995 – June, November.
   
   1996 – March.

Note:

May 1994 and November 1995 were chosen purposely because of special events: The first, the Cairo Agreement and the arrival of the Palestinian Authority to Judea, Samaria and Gaza, the second, Rabin’s assassination.
References


