BRAZILIAN MEDIA USAGE
AS A TEST OF DEPENDENCY THEORY

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Brazilians are interviewed in order to test the thesis from dependency theory which states that exposure to mass media is related to consumer behaviour.

L’auteur entreprend des entrevues auprès de sujets Brésiliens afin de tester l’hypothèse de la théorie de dépendence voulant que le comportement de consommation soit lié à l’exposition au médias.

According to dependency theory in communication studies, exposure to the media in developing nations is associated with increased individual dependency on industrialized goods. Research data indicate that communications systems in developing countries generally contain significantly more imported messages (television programs, films, music on the radio, and news) than indigenous productions (Katz & Wedell 1977, Varis 1984). These phenomena have led some researchers to suggest that consumer patterns of wealthier social strata in the Third World tend to reflect those of industrialized countries (Wells 1972, Oliveira 1986a).

Cultural and Economic Dependency

Dependency theory was originally suggested as an economic model to explain the underdevelopment process in the Third World (Cardoso & Falleto 1979). Frank (1969, 8. 182) observed that as early as 1963 Latin America spent 34.7 percent more on imports than it earned with exports. In 1982 Brazil paid $18 billion in interest on its external debt (Furtado 1982: 63). And in 1986 the same country did not have enough resources to pay the $12 billion due on its $103 billion external debt (Oliveira 1986b: 4). This chronic Third World deficit seems to have gradually reduced most of the planet to unacceptable levels of poverty (Frank 1969: 172).

Dependency researchers suggest the existence of two major agents in the global economic system--core and periphery. The industrialized nations (core) export finished goods to the Third World (periphery), which in most cases supplies the necessary raw materials for global consumption (Rodrigues 1981: 38). "The basic mechanism of the system is the process by which the core extracts surplus value from the periphery, maintaining the latter in a state of underdevelopment" (Mosco & Herman 1981: 59). As prices for raw materials deteriorate in the world market, and the relative value of high technology becomes dearer, the gap between core and periphery widens. The general effect is the creation of wealth in the core and poverty in the periphery (Frank 1969).
Currently a few peripheral nations (Argentina, Brazil, Korea, Mexico, etc.) have reached industrialized status. Yet the durable goods these countries produce, which in the core are for the consumption of the masses, in the periphery are restricted to less than 20 percent of the total population who can afford them (Cardoso & Faletto 1979: 28). And, Dos Santos (1987: 5) suggests that "developing nations invest only in intermediate and obsolete technologies, ...which were abandoned by the core countries." So even when peripheral nations become industrialized, the process tends to exacerbate dependency. As these nations industrialize they also have to import vital parts for industry, which are produced only in the core.

In addition, most multinational corporations that have branches in the Third World bring with them U.S. advertising agencies. Massive advertising campaigns strengthen dependency as they promote the consumption of luxury items (Mosco & Herman 1981: 61). Eighteen percent of Mexican television and 25 percent of Brazilian television time is dedicated to commercials (Caparelli 1982: 77). The power of multinational corporations is expanded through advertising, which stimulates economic and cultural dependency (Janus 1981). The consumer patterns of industrialized nations are projected inside the homes of underdeveloped regions showing a future dominated by Western technology (Sodre 1977: 100). And, in the words of the Brazilian Minister of Culture, "the phenomenon of cultural domination has reached unprecedented proportions. We have now entire societies that are basically consumers of culture, and others that are the producers of culture" (Brasil 1987: 4).

Within this framework the media are seen as powerful agents that promote imported lifestyles in the periphery (Wells 1972, Oliveira 1986a). As imported television shows, films, and music tend to portray a North American lifestyle, they also seem to encourage the adoption of imported cultural values (Beltran 1978). These imported values include the consumption of durable goods such as cars, refrigerators, air conditioners, micro-computers, video games, and others (Mattelart 1978, 1983; Schiller 1976). TV Globo of Brazil promotes the consumption of luxury items, which can only be afforded by a privileged few who have little in common with the rest of the population (Sodre 1977: 116). And, as the Third World succumbs to this cultural invasion, it also becomes more dependent on imported technology (Caparelli 1982, Furtado 1983).

Dependency scholars emphasize that the adoption of Western consumer patterns in the periphery occurs mostly among the wealthy sectors that can afford them. Levels of income in the core countries are on average ten times the income of the periphery. Hence, those persons in the periphery, who can live like the average American or European, have to earn ten times more than the per capita income in their own nations. These privileged citizens of peripheral nations are, at most, five percent of the total Third World population, and receive close to one third of the total Third World earnings (Furtado 1983: 72-73). Consequently, the dependency process, beyond widening
the gap between rich and poor nations, also tends to enlarge the gap between haves and have nots in the Third World.

In Brazil, Ramos (1986: 17) points out the contradictory role of the media, which emphasize the consumption of durable goods in a country where more than 64 percent of the working population earns less than $70 a month. And Milanesti (1985) suggests that television has encouraged changes in the Brazilian diet. According to him, television portrays industrialized foods as being healthier, richer in vitamins, tastier, and more practical. These messages encourage dependency on processed foods as consumers tend to forget traditional ways of preparing their meals.

As dependency literature is reviewed, a clear tendency of mixing media and consumer behavior emerges. The economic links that tie the periphery to the core seem to be strengthened by cultural agents such as television, radio, newspapers, and magazines. These agents not only reflect the economic process, but through their messages and through advertising, appear to be the catalysts of dependency.

This study analyzes the relationships between media exposure and consumer patterns. It is an attempt to clarify the role of the media in the process of cultural and economic dependency.

Method

The study was conducted in the Brazilian city of Belo Horizonte, which has a population of approximately 2,107,000 inhabitants, and is the capital of Minas Gerais state, the second largest state in the nation (Belo Horizonte 1985). Fifty one percent of the city’s economic activities are linked to the steel industry. Other industries include automobile (Fiat), food processing, textiles, printing, fashion, furniture, and mining (Anuario Estatistico...1980).

Sampling procedures included the selection of 20 regions of approximately the same size in the map of metropolitan Belo Horizonte (TELEMIG 1986). In each region five blocks were randomly selected and in each block two persons were personally interviewed. The initial sample size was 200 but two interviews had to be discarded due to incompleteness, thus the final sample size was 198.

The average family size in the sample (n=198) was five persons, the average educational level was incomplete high school, and the mean household income was $360 per month. The mean age was 32 years and 53 percent of respondents were women.

The area researched has clear reception of all four major Brazilian television networks, Globo, Manchete, Bandeirantes, SBT (Brazilian Television System), and the local educational station, TV Minas. It is also covered by seven AM and eight FM
radio stations. And the principal newspapers and magazines produced in Brazil are readily available there.

The research hypotheses were based on dependency theory's assumption that the larger the exposure to the media the larger will be the individual level of consumption. Two major hypotheses were tested. They related mass media exposure to actual consumer behavior (hypothesis 1), and the desire to consume industrialized products (hypothesis 2):

Hypothesis 1

The number of hours per week an individual spends watching television, listening to the radio (AM and FM), and reading newspapers and magazines is positively correlated with a person's level of consumption.

Hypothesis 2

The number of hours per week an individual spends watching television, listening to the radio (AM and FM), and reading newspaper and magazines is positively correlated with a person's preference for industrialized goods.

Each sample member was personally interviewed. This method was favored over mail or telephone because of its specific advantages. It tends to reduce the number of negative answers and allows interviewing persons who do not have a telephone. In interviewing respondents with lower levels of education, the personal interview offers the obvious advantage of face-to-face interaction and clarification of doubts (Backstrom & Hursh-Cesar 1981, Tagliacarne 1978).

The interview schedule contained four major question categories. The first asked the weekly hours the respondent spent attending to television, radio (AM and FM), newspapers, and magazines. This section also included questions on respondents' favorite media. The second part asked questions on respondents' consumer behavior as related to food consumption, as well as ownership of appliances and luxury goods. The following food items were included: beef, pork, chicken, fish, pasta, rice, beans, fruits, milk, and vegetables. And the appliances were stove (gas/electric), refrigerator, mixer, electric iron, hot water shower, washing machine, black & white TV, color TV, AM radio, and FM radio. In this section there was also a question about the ownership of what in Brazil are luxury items: VCR, telephone, car, ownership of a house, country or beach house, movie camera, motorcycle, boat, microcomputer, and microwave oven.

The third category of questions appraised the respondents' preference for industrialized products through a bipolar scale with ten options. This kind of scale has been successfully used in Nigeria and Belize (Biu 1980, Oliveira 1986a). The respondent had the option of choosing between the following items: home made clothing/store bought clothing, disposable razor/regular razor, paper napkin/cloth napkin,
hamburger/feijao tropeiro (regional beans), home made juice/soda, ready made seasonings/home made seasonings, fresh food/canned food, yogurt/Minas cheese (regional cheese), regular shoes/tennis shoes, jeans/regular trousers. One of the items in each bipolar choice represented a traditional technology product, the other an industrialized product. The final part of the interview schedule included questions about demographic variables such as age, income, education, family size, and gender.

The relationship among the major variables were analyzed through the Statistical Package for the Social Sciences (Nie et al. 1975). Pearson's correlation coefficient (Fonseca 1982) was the main procedure used to assess the association between variables. The number of hours per week each respondent spent attending to the media was compared with the number of items consumed, and the correlation coefficients were estimated. The level of statistical significance used was $p < 0.050$. Additional calculations were performed on the data contrasting media use and demographic variables.

**Results**

The average weekly hours of media exposure were the following: 18 for television, 16 for AM radio, 16 for FM radio, 5 for newspapers, and 4 for magazines. Ninety six percent of the sample said they watched television the preceding week, 47% listened to AM radio and 61% to FM radio, 58% claimed that they read newspapers and 50% magazines. Seventy eight percent of the sample pointed out TV Globo as their favorite network. Globo resembles the U.S. networks in that it favours entertainment programming and slickness over content. The second most popular network was Manchete (12.0%), which has been more concerned with content and investigative journalism since its inception four years ago.1

Among the preferred AM radio stations were Atalaia and Itatiaia (30.0% of sample for each).2 AM radio tends to play mostly Brazilian music and stresses local and regional news. The favorite FM stations were BH (33.0%), Cidade (16.0%), and Guarani (12.0%).3 FM radio tends to deemphasize news and broadcasts more U.S. music than AM stations.

The preferred newspapers in the sample were the Estado de Minas (69.0%) and Diario de Tarde (9.0%), which are local papers with mostly local and regional news. They were followed by Jornal do Brasil (9.0%) of Rio de Janeiro and Folha de Sao Paulo (4.0%), which emphasize national and international news, similar to The New York Times and The Washington Post in the U.S.4 News magazines (much like Time or Newsweek) such as Veja, Isto E, Visao, Senhor, Exame, etc., were among the favorite (73.0%) reading matters.5

Hypothesis 1 compared media use to consumer behavior. The number of weekly hours spent with newspapers and magazines was positively associated with the total consumption of food, appliances and luxury items. The calculated coefficients were
r = 0.377, p < 0.01, for newspapers; and r = 0.294, p < 0.01 for magazines. There was also a significant relationship between weekly hours listening to FM radio and ownership of appliances (r = 0.219, p < 0.01). Hence, the hypothesis was partially supported by the data.

However television viewing and consumption were not significantly associated (r = -0.048, n.s.), while AM radio listening and consumption were, but in a direction opposite to the hypothesis' prediction (r = -0.222, p < 0.01). Further, there was a weak negative correlation between television viewing and the ownership of luxury items (r = -0.140, p < 0.050). Consequently, in relation to television and AM radio, the hypothesis was not supported by the data. In short, time spent with newspapers and magazines, as well as FM radio, is positively associated with consumer behavior. But television and AM radio use are negatively related to consumption.

In hypothesis 2, preference rather than behavior, was tested. As indicated in Table 1, television viewing was positively associated with preference for industrialized products as compared with traditional goods (r = 0.155, p < 0.050). This hypothesis was only partially supported by the data.

**TABLE 1**

<table>
<thead>
<tr>
<th>Food</th>
<th>Appliances</th>
<th>Luxury Items</th>
<th>Total Consumption</th>
<th>Preference for Ind. Goods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Television</td>
<td>0.036</td>
<td>0.008</td>
<td>-0.140*</td>
<td>-0.048</td>
</tr>
<tr>
<td>AM Radio</td>
<td>-0.092</td>
<td>-0.214*</td>
<td>-0.220*</td>
<td>-0.222*</td>
</tr>
<tr>
<td>FM Radio</td>
<td>0.087</td>
<td>0.219*</td>
<td>0.010</td>
<td>0.123</td>
</tr>
<tr>
<td>Newspapers</td>
<td>0.211*</td>
<td>0.397*</td>
<td>0.298*</td>
<td>0.377*</td>
</tr>
<tr>
<td>Magazines</td>
<td>0.241*</td>
<td>0.289*</td>
<td>0.182*</td>
<td>0.294*</td>
</tr>
</tbody>
</table>

*Significant at p < 0.50

AM and FM radio listening did not correlate significantly with preference for industrialized items (r = 0.085, n.s.; and r = 0.110, n.s.; respectively), the direction of the coefficients was positive, though, as predicted in the hypothesis (see Table 1). Newspaper reading was negatively correlated with the desire to own or consume industrialized goods (r = -0.141, p < 0.050). This finding contradicts the hypothesis. Also, the relationship between hours spent reading magazines and preference for industrialized products was negative, but it did not reach statistical significance (r = -0.116, n.s.).
In sum, the two hypotheses were partially supported by the data. The use of newspapers, magazines and radio FM were positively associated with consumer behavior, while television viewing was correlated with the desire to consume industrialized items.

Additional Results

Supplementary calculations were performed in order to clarify some of the original results. Table 2 displays the correlation coefficients between media use, consumption and preference, and two major demographic variables, education and income. Education correlated positively with time spent with newspapers and magazines, but negatively with AM radio. Following the same trend, income was positively associated with the former and negatively with the latter (Table 2). The relationship between income and education was also calculated. As one would expect, the correlation between these two variable was highly significant, $r = 0.579$, $p < 0.01$. And both were strongly associated with total consumption ($r = 0.511$, $p < 0.01$ for education; and $r = 0.587$, $p < 0.01$ for income).

**TABLE 2**

<table>
<thead>
<tr>
<th>Major Variables and Education and Income</th>
<th>Education</th>
<th>Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Television</td>
<td>-0.123</td>
<td>-0.153*</td>
</tr>
<tr>
<td>AM Radio</td>
<td>-0.223*</td>
<td>-0.236*</td>
</tr>
<tr>
<td>FM Radio</td>
<td>0.053</td>
<td>0.039</td>
</tr>
<tr>
<td>Newspapers</td>
<td>0.374*</td>
<td>0.306*</td>
</tr>
<tr>
<td>Magazines</td>
<td>0.377*</td>
<td>0.225*</td>
</tr>
<tr>
<td>Total Consumption</td>
<td>0.511*</td>
<td>0.587*</td>
</tr>
<tr>
<td>Preference for Inds. Goods</td>
<td>0.017</td>
<td>0.084</td>
</tr>
</tbody>
</table>

*Significant at $p < 0.050$

**Discussion**

Newspapers, magazines and FM radio seem to be the media most closely associated with consumption. If analyzed separately from other channels of communication, they would support the assumptions of dependency theory. In addition, newspaper and magazine use seems to be strongly associated with education and
income. Therefore, the significant relationship between them and consumption is not surprising.

These results confirm readership characteristics previously identified in Brazil. Usually, newspapers and magazines are consumed the most by the higher socio-economic strata who tend to own a larger number of durable consumer items. Similar trends were found among FM radio listeners (ABM 1986). In short, in a dependent society the readership of newspapers and magazines as well as the audience of FM radio tend to have higher degrees of education and income; they are also more likely to own a larger number of luxury items.

These media then may be more heavily consumed by the top five percent of the privileged citizens, who can live an American or European life-style in the Third World (Furtado 1983). Consequently, they become the target audience for messages advertising sophisticated products. These are exactly the items that require the importation of high technology. Among all the respondents only four percent said they owned VCRs, movie cameras, or microwave ovens. These consumers thus constitute a minuscule proportion of the Third World population, yet they are usually the elite who establish the cultural and economic ideals for the rest. The masses then strive to imitate these higher strata. However, these elites only seemingly create new trends in society. What they actually do is to promote imported life-styles. Thus indigenous values of developing societies are at a disadvantage when they have to compete against such imported attitudes. As predicted by Janus (1981) the expansion of transnational power helps to consolidate cultural and economic dependency.

In the case of AM radio, however, the situation appears to be different. AM radio in Brazil seems to have escaped the massive infusion of North American content. The programming tends to be more regional with a predominance of Brazilian tunes. Newscasts, in general, emphasize local news related to politics, crime, and the weather. AM stations are frequently used as a public service, announcing weddings, funerals, and birthdays. They are also used to relay messages to distant friends and relatives who do not have telephones. The results show that AM listeners tend to be less educated and have lower income levels. These audiences also seem to consume less food, appliances, and luxury items; a characteristic of most peripheral populations. Perhaps AM radio represents the major hope for the revival of indigenous Brazilian culture, which has been gradually undermined by the pressure of imported programming.

The data also indicate that television viewing, much like AM listening, is negatively associated with consumption. This apparently contradicts the theory. But a closer examination of Table 2 shows that both media also have a negative correlation with income. The lower the family income, the more one tends to watch television and listen to AM radio. These audiences, therefore, have relatively weak consumer power, which explains the results. In fact, television viewing is likely to stimulate the desire to consume, but consumption does not materialize if one does not have the
means to purchase the advertised goods. When preference for industrialized items was compared to television viewing, the correlation was positive and reached statistical significance. One would expect, then, that viewers would buy the advertised products if they had the means to do so.

When actual behavior was measured the data did not show the expected relationship between exposure to television and consumption, but when preference was tested, the association was detected. These results indicate a discrepancy between behavior and attitude. Between the desire to own a product, and actual consumption there is a strong intervening variable, income. Therefore, in this case, attitude is only translated into consumer behavior among those who have higher socio-economic status. And they are precisely those who spend the least time on television viewing and AM radio listening. Their leisure time is usually occupied with other, more expensive, activities such as theater attendance, concerts, movie going, and reading. Income level then seems to explain the initial contradiction.

The same variable seems to play an important role in explaining the results of hypothesis 2. This hypothesis associates media exposure with the desire to consume industrialized items instead of more traditional ones. Yet it was not supported in the case of the newspapers. The larger the amount of time spent reading newspapers, the smaller was the preference for industrialized goods. In contrast, newspaper reading had the highest correlations with the ownership of appliances \( r = 0.397, p < 0.01 \) and total consumption \( r = 0.377, p < 0.01 \).

On the one hand, newspaper readers seem to be saying that they do not prefer high technology products when contrasted with traditional items. And on the other, they are among those who own most of these goods. Such an outcome tells us a great deal about newspaper readers in a dependent society. They are among those who already own industrialized products, and therefore can afford not to select these very products in the hypothetical situation of a choice.

In the case of television audiences, the situation is reversed. Since those who watch relatively more have lower income levels, their actual consumption is lower. However, their preference for high technology goods is larger. Consequently, heavy viewers in peripheral contexts are among those who have the highest desire to consume, and the least possibility of making their desires come true.

By clarifying the role of the media in the dependency process we must conclude that media effects must be related to income levels. At least within the Brazilian context, these variables cannot be analyzed separately. In Brazil, as in most of the Third World, income disparities have become a fact of life. Consequently, to a large extent it is a person’s income, not media exposure, that will determine his or her consumer behavior. Yet consumer attitudes may be influenced by media exposure.
The most significant contribution of this study, therefore, appears to be the discovery that behavior and attitude, must be carefully distinguished when analyzing cultural and economic dependency. The role of media within this process is largely limited to the realm of preferences. *Dependency theory* in communication studies therefore tends to apply best to attitudes, not behavior. In order to have a clear impact on actual consumption patterns, media exposure must be accompanied by increased income levels.

**Notes**

1. Globo and Manchete networks were followed by Bandeirantes (5.5%), SBT (3.0%), and TV Minas (1.5%).

2. The other AM stations mentioned were Globo, Guarani, and Mineira (9.0% each), Cultura (8%), and Inconfidencia (1.5%).

3. These were followed by Del Rei (8.0%), Inconfidencia FM (7.0%), Antena 1 and Alvorada (5.0% each), and Terra (4.0%).

4. Other papers reported as favorite by part of sample were Diario de Minas (2.0%), and Jornal de Casa and Pasquim (1.0% each).

5. They were followed by fashion (10.0%), specialized (4.0%), *fotonovelas* and sports magazines (3.0% each), and comics (3.0%). *Fotonovelas* are magazines with love stories similar to those of U.S. soap operas.

**REFERENCES**


