

DRAFT FOR DISCUSSION

MASS MEDIA USE AND THE "REVOLUTION OF RISING FRUSTRATIONS"
A RECONSIDERATION OF THE THEORY

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The "Revolution of Rising Frustrations" has now celebrated its tenth birthday. In his landmark publication, The Passing of Traditional Society, and in subsequent publications (1963), Daniel Lerner explained the facilitative role of mass media in accelerating the pace of national development. By linking the cities to the countryside, the centers of power to their periphery, the "media spread psychic mobility" (Lerner, 1958:55). Media encourage people to "imagine themselves as strange persons in strange situations, places and times" (Lerner, 1958:52). However, complementary to his growing aptitude for empathy with others' lives communicated to him through the media, Lerner's transitional man also developed an increasing desire to live those lives. "He wants really to see the things he has hitherto 'seen' only in his mind's eye, really to live in the world he has 'lived' in only vicariously" (Lerner, 1958:72).

Here lay the problem. It became clear that optimistic forecasts of rapid economic takeoff for the transitional (now, less-developed) countries would not be fulfilled. Simultaneously, rapid economic growth or not, mass media penetration continued to increase. Lerner feared that the mass media would be responsible for rapidly increasing expectations, which bogged down economies would be unable to satisfy. The resulting imbalance in the "want:get" ratio, he hypothesized, would lead to a "revolution of rising frustrations" (Lerner, 1963:331).

Although this hypothesis is now widely endorsed (e.g., Rogers with Svenning, 1969), it has not been tested with any rigor. Indeed, the sparse evidence that is available is not generally supportive. Moreover, the direction of much recent research and writing about mass media's social effects in developed countries is, in principle, inconsistent

with the hypothesis. In the following pages I shall expand on these comments, and try to spell out the process through which media might facilitate development and suggest why that process is unlikely to produce frustration. A final section will report some results from a recent field study which bear directly on the hypothesis.

Research on the "Revolution of Rising Frustrations"

The element of Lerner's hypothesis herein considered is that which indicts media for the creation of unachievable aspirations. Stated succinctly, "mass media bring new aspirations to people - and then, since the empathic individual imagination quickly outruns societal achievement, it brings ... frustration" (Lerner, 1963:335). For the purposes of this paper, it will be assumed that if, in fact, the "want: get" ratio is greatly out of balance, frustration is a likely result. Whether this frustration is apt to be manifested via aggression or regression will depend on circumstance.

The crux of the issue is not whether exposure to the content of mass media will increase wants, but rather whether that exposure will create aspirations so out of proportion to an individual's potential to satisfy them (given social structural limits) that frustration is created. It has been a difficult hypothesis to test since most research about mass media's effects in developing countries has relied on the cross-sectional survey. This will become clear as the existing research is traced.

Lerner's primary hypothesis, it will be recalled, was that mass media is a facilitator of modernization. This implies a positive association among (1) exposure to media content; (2) the complementary

elements of being modern: urban residence, literacy, higher socioeconomic status; and (3) the complex of modern attitudes: empathy, innovativeness, activism rather than fatalism, higher aspirations, need for achievement, personal satisfaction, and others. Such positive correlations have been found in a large number of studies.¹

In apparent contradiction to those typical findings, however, the media exposure/frustration hypothesis would suggest that at least some of these associations should be negative. For example, it might be suggested that if frustration had led to regression, media exposure would be positively correlated with fatalism and/or reduced innovativeness. If frustration was unresolved, or had led to aggression, negative correlations between mass media exposure and personal satisfaction (on an individual level) or political stability (on the aggregate level) might be expected. But the evidence is largely consistent; such negative relationships have rarely been reported.

Charles Taylor (1967) could find no positive correlation between mass media exposure and political instability. Oberschall (quoted in Gurr, 1970:89) "found no consequential differences in dissatisfaction among ... Ugandans that could be attributable to ... the extent of their exposure to the mass media." Rogers with Svenning (1969:379) reported a strong positive correlation (.398) between satisfaction and mass media exposure and a negative one (-.306) between fatalism and mass media exposure in their study of Colombian peasants. Frey (quoted in Rogers, 1969:13) did not find mass media exposure

1 Kahl, 1968; Deutschmann, 1963; Waisanen and Durlak, 1967; Keith, Yadav and Ascroft, undated; Rogers and Shoemaker, 1971; and Rogers with Svenning, 1969, all reported positive relations between media use and various modern attitudes held by individuals. McCrone and Cnudde, 1967; and Winham, 1970, confirmed Lerner's facilitative hypothesis using aggregate data across nations and over time respectively.

"strongly associated with increased demands on the government, augmented desire for political participation, excessive optimism or a jaundiced view of village life in comparison to urban opportunities."

However, as consistently negative as this evidence is, these studies do not provide a fair test of the exposure/frustration hypothesis. Clearly both media exposure and the other variables with which it is correlated are in part a function of wealth and urbanization and education. Thus no reasonable interpretation of the hypothesis would predict bivariate relations other than those observed. If fatalism is expected to be a characteristic of some of those whose wants have outrun their achievements, it is also a characteristic of those suffering from poverty and its correlates, malnutrition, poor health, and uncomfortable living. If dissatisfaction is the result of wanting more than one has, it is also a function of absolute levels of achievement. Some of the people who have high media exposure also have relatively high achievement. They are likely to be more content not only than those with high media exposure and low achievement, but also those with low media exposure and low achievement. Poor countries have less developed media systems because they cannot pay for better ones. They are less stable than wealthy countries for a host of reasons.

Even if the media/frustration hypothesis was correct, it was unlikely to be uncovered by studies testing the bivariate relations with linear statistics given that the populations studied include high and low media users and high and low achievers. The hypothesis was a restricted one, in that it made predictions about only a portion of the population generally surveyed in the research reported above. It predicts dissatisfaction only among people who are both high media users

and low achievers. Tests of hypotheses applied to a general population are ambiguous when this subpopulation is not specifically examined. It will be useful to break down this prediction into a series of assumptions and logically subsumed predictions and consider the evidence for each.

Implicit Assumptions

A prediction about a given subpopulation assumes that the subpopulation is not an empty set. Are there a significant number of people who are high media users and low achievers? Using the media usually implies that an individual or his community have passed at least some minimal threshold of achievement. Extremely rural areas may not be near enough to a transmitter to receive radio transmissions. A really poor man may be so busy and exhausted attempting to provide for his daily needs as to be unable to give up time for listening to the radio, especially if that implies going to a central location. Newspaper reading is restricted to people who can read (or have a child who can read to them) and who can afford to buy, or can borrow a newspaper. Thus one would imagine that among the poorest of men mass media use is not high. Positive correlations between media use and socioeconomic status attest to that.

However, once a minimum threshold of achievement is passed (enough to buy a transistor radio and keep it in batteries) hours of use can increase out of proportion to coordinate increases in achievements. Certainly the growth in mass media ownership in the past decades has far outstripped the growth in per capita real income. It then is reasonable to accept the assumption of a significant population whose media exposure is increasing more rapidly than its material achievement.

A second assumption of the media/frustration hypothesis is that exposure to the media implies exposure to information about different life-styles and unknown material goods. Is this psychologically distinct information available in the media to which poor men are customarily exposed? If television had spread to the countryside one would agree without hesitation. The U.S. adventure series shown throughout much of the developing world, and the bright goods pictured in the accompanying advertisements, are certainly far from the experience of men beginning the transition to modern life in their rural villages. However, with some exceptions, television is not the medium to which they are exposed. If they have access to any medium, it is most often radio.

Radio, in contrast to television, is a regional or national medium. Programs are most often produced in the country. Most broadcast hours are devoted to music followed by news. Religious programs, soap operas, sports broadcasts, political programs and information/instruction programs are also sometimes available. However, to what extent each of these can be heard by village; not in the immediate periphery of cities is unknown. The commercials likely to be heard and the content of the news broadcasts are also unknown.

The issue of the nature of content available to rural listeners cannot be settled here. However, the assumption that it is information predominantly inconsistent with existing life-styles remains to be verified. Surely a good proportion, like traditional national music and religious readings, is not in any way inconsistent. Thus the rural mass media mediate the old as well as the new.

A third assumption implicit in the media/frustration hypothesis follows directly from the second. Given that a range of content is

available on rural media, does a significant proportion of the audience choose the new content, listening to the news of Bangkok as well as Thai native music, leaving their radios tuned to Jordanian political broadcasts when the Koran readings are over?

Lerner (1958) describes the Jordanian Bedouin who listens to the religious programming and then shuts the radio off. Rao (1966:54), contrasting his traditional and transitional Indian villages, describes strikingly different uses of community radios, although it appears the content available to both communities is the same. In one community, the transitional town, there were three people who listened daily to each radio (30 listeners/10 radios). In the traditional village, there were only 1.5 daily listeners for each radio (six listeners/four radios).

This raises the issue of selectivity, of the active role of the audience in choosing not only what it will listen to, but even more importantly, how it will use what it chooses to hear. Who will choose to listen to new content, and who to old? Among the first group, what will they do with the new content they hear? Who will treat it as exciting revelation and who as fantasy, information without relevance to their lives?

An essential fourth assumption of the media/frustration hypothesis is that many will be excited by what they hear. They will want to experience first hand the goods and life-styles that the media communicate to them. And it implies not only aspirations for those changes, but a firmly held expectation that they will be achieved. Clearly, if frustration is to result because these wants are not satisfied, they cannot

be mere "wouldn't it be nice if..." or "I wonder what it would be like to..." sentiments. Men and women must really believe that they are on the path to achieving their wants, even though we know, as outside observers, that they cannot achieve them.

Are media likely to engender this? Are people likely to use the content of the media in such a clearly dysfunctional way? Is aspiration after aspiration to be learned from the radio, although the immediate environment rewards few or none of them? It seems an unlikely hypothesis.

Schramm (1971:10-11) has described the drift of mass communication theory as it relates to this matter. Early assumptions of a hypodermic effect have given way to theories of the active audience. No longer do scholars in the field believe that the effects of the media are defined by the messages they transmit. Rather, the listener selects among the messages and then interprets the messages he has attended to in ways consistent with his image of the world.

Each man's information-seeking behavior, it is hypothesized, is consistent with and reflects all that he knows about the world and all that he feels about the world. The bias of media use is conservative.

At the same time, a bias does not imply an absolute pattern. Clearly, some men do change; new aspirations, new values and new behavior are adopted. Despite its conservative bias, is there no role for mass media in the information-seeking that leads to these changes? Probably there is: the facilitative role that has been described above. How might that work?

Let us imagine a man beginning the transition away from traditional society. Assume that his picture of the world is well

integrated. His expectations for himself are limited. He knows where he belongs and where his neighbors belong.

There is some change in his environment. Perhaps through city visits or mass media or conversations with friends who have had new experiences, he perceives that there is information that his world view did not include. Or possibly some change in the economic organization of his community has led to concomitant changes in social organization. Rao has described the radical social effects of a World War II army contract for foodstuffs on a traditional Indian village (Rao, 1966:15). For one reason or another, then, the internal rules under which the man traditionally interacts with his society no longer work. Not only is he faced with new information, but also with information that is inconsistent with his world view. He must formulate some new rules governing his relations with his society. Making these adjustments, he changes his picture of the world.

In the course of external social upheaval or change (thoroughgoing revolution, plague, move from a long-time home, recruitment into the army) adjustments in world view are required and will be very large. However, when social change is slower paced, recognition of the need for adjustment can be voluntary. Given what has already been said, that volunteerism is particularly applicable to adjustments reflecting information in the mass media. What might the process of adjustment be?

At first, the inconsistencies a man will voluntarily perceive are likely to be small. The Latin American peasant, attached as were preceding generations to the hacienda, does not expect his son to live other than he has. The awesome gaps between his own standard of living

and that of the owner of the hacienda seem inevitable. Slowly news of changes in the world outside of the hacienda come to him. Ordinarily he pays no attention. What is will always be. However, perhaps one month his child is ill with dysentery. Usually the local curer offers a remedy; sometimes it is effective, sometimes the child dies. This time, a neighbor tells the man of a newly opened clinic in a town not too far away. He has a friend whose child suffered from dysentery and went there and was cured. The peasant is in a dilemma. His traditional rules tell him to stay home and rely on the curer. Yet the child seems to be worsening. Finally he sends his wife with the child to the clinic and the medicine received there makes him better.

Over time, as the clinic keeps his family healthy, he no longer believes that the death of one or more of his children is inevitable. He expects they will survive.

The use of information from outside of his local community, inconsistent with his traditional expectations, has proved rewarding. It seems reasonable to assume that he will seek such information again.

Perhaps his wife has seen a pair of ready made trousers for him in the local store. She tells him she does not seem to have the time any more to make them at home. There is a little extra money; he agrees to buy them. His neighbors admire them, and he thinks about growing more vegetables in the coming season, selling them so that he will have more money. The next year he buys a cheap transistor radio. Although most times it plays only popular music which he does not like, his wife listens to a soap opera every day. One of its characters is the son of rural peasants. The son works hard in a city factory, and is able to send money home to his parents every month. Everyone

respects him, and his parents are much envied in their village.

The wife begins to talk of their son going to the city. She knows that he will have to finish six grades of school, and that he will not be able to work in the fields with his father while he attends school. It would be nice to have the extra money he could earn now, but perhaps he could work after school; and with the extra money from the vegetables, they will not need it so badly.

She tries to convince her husband. At first he does not believe it possible, but the thought of a son sending money home is attractive. He learns of a boy in the next village who has found such a job. The hacienda school which up until now only offered one or two grades has been expanded to six grades. Sometimes at night the radio broadcasts political speeches. Most times politicians don't seem to say anything. Recently, though, he has heard talk about how everyone is going to be living better, that the government is going to be putting up some new factories, that education is going to be available to all young people.

He begins to expect that his son can go to school and eventually find a good job in the city.

This hypothetical picture of the transformation of values describes how information from outside a local village, particularly mass mediated information, might facilitate a change in expectations. However, implicitly it describes the obstacles as well. Mass media facilitates change insofar as change in expectations is reinforced in the environment.

The father aspires for his son to become a factory worker

not only because his wife talked about a soap opera stereotype. He knows another boy who has done it; the village offers the necessary schooling; political leaders promised opportunities; information from outside has proved useful and trustworthy. If that change in values was not reinforced by the environment, it would not have been adopted. If the clinic had not cured the son, if the boy in the next village had not found a job in the city and had sent no money back to his parents, if there was no school where more than two grades of elementary school were offered, the change in expectation was not likely to be adopted. Perhaps the wife might have hoped, but there is little likelihood that she or her husband would have expected such an achievement.

Similarly, the purchase of the pair of pants, then the radio, seemed to represent an accelerating desire for material possessions. Yet that acceleration depends on success at each step. A poor peasant is unlikely to start out yearning for a TV set. More likely the ready-made pants are his first goal. Then he seeks the radio set. Perhaps a bed off the ground is an alternative possibility. However, were he unable to achieve that, he is unlikely to continue increasing his aspirations. Logically his aspirations are only one step up from his achievements. No matter how glibly his radio speaks of wood-burning stoves, the peasant is unlikely to really expect to own one if everything else in his environment tells him he cannot even purchase a bed costing one-third as much.

A man will take a risk, he will begin to alter his values, his expectations, his picture of the world. If that first small risk is rewarded, he will return and enter into the process again. He will

expose himself to new information inconsistent with his picture of the world; recognizing the inconsistency, he will seek additional information, ways of integrating new and old. If he can find it, he is again rewarded and will re-enter the process, seeking larger changes in his world view. If he cannot, he will hesitate to enter the process again. He will not expose himself to new information inconsistent with his understanding of the world because the "mental dissatisfaction" (Polanyi, 1958:196) it implies could not be resolved.

In summary, expectations generated by mass media probably do not outrun the ability of the environment to reward them. A great gap between want and get and the resulting frustration implicit in the revolution of rising frustrations is unlikely. The effects of media tend to be conservative; they will facilitate higher expectations only insofar as the individual's environment reinforces the change in values represented in media content.

Can there be a Revolution of Rising Frustration?

Can there be such a thing as a revolution of rising frustrations? Although the preceding scenario indicates that it is not highly likely, it is not impossible. There are important circumstances in which the environment may falsely reinforce rapidly rising expectations. Periods of major social upheaval may convince people that change is coming. Davis (1962:8) suggested that revolution is most likely to occur when there exists "the vague or specific fear that ground gained over a long period of time will be quickly lost." In the context of already realized expectations and a

continued expectation for rising achievements, a threat to what has already been achieved is very provocative.

Perhaps most commonly, schooling itself may falsely encourage raised aspirations. Many countries have sharply expanded their public school systems. For example, in El Salvador from 1968 to 1972, grades seven to nine increased to three times their original size. In the past, a man with nine grades of education could expect to continue through a business course or high school. Certainly his job prospects would be heightened by his education. Similarly, today's students also expect to continue their education and find good jobs; they know that schooling meant a great deal in the past, and expect it to continue to do so. Yet, because the increase in school population is in no way matched by an increase in comparable job opportunities, many of these students will be unable to satisfy expectations. The perceived environment, in this case knowledge about what schooling has always meant, rewards increases in expectation over the short term, yet probably these expectations will not be satisfied. The gap between want and get may become very wide. Frustration is a likely result.

It is the thesis of this paper, then, that the role of mass media in accelerating the rise of expectations is conditioned by the individual's environment. In a time of rapid social change, the individual will be seeking new information in the media and elsewhere to help him make necessary adjustments in his way of dealing with the world. Also, if his perceived environment reinforces increased expectations (either truly - when new opportunities are available, or falsely - when new schooling opportunities and the job opportunities they suggest outrun actual job opportunities) messages endorsing

raised expectations, including those transmitted by the mass media, may be accepted. Conversely, expectations will not be raised as a result of mass media exposure, if the individual, while testing them against his daily reality, does not see them reinforced.

In the following section some recent research which bears on this thesis is described. It tests the causal role of media use in changing certain expectations. However, although the results are highly suggestive, and are parallel to the orientation of the previous sections of the paper, the sample is a special one, and limits their generalization. Ordinarily, in contemplating the transition to modernization, one considers, as did the hypothetical scenario, rural adults, poorly educated and bound to traditional lifeways. This study, drawn from another research effort, included only junior high school attending adolescents. While most of them did live outside large cities, and were children of poor families, nonetheless they represent a group quite different from the general traditional population to whom the foregoing theoretical comments would apply.

A Study of Mass Media Use and Social Attitudes

From 1969 through 1971, as part of a larger study of instructional television, a panel of 900 El Salvadoran students were studied as they passed from seventh grade through ninth grade. Over the three years they responded to batteries of tests and questionnaires administered at the beginning and end of each school year. The questionnaires included a wide variety of items, some related to mass media use outside of school. Thus for three years, over six measurement waves, students reported

television ownership and hours of watching, radio ownership and hours of listening, newspaper use, cinema attendance and magazine ownership.

Students also reported educational and occupational aspirations on these same six questionnaires. Finally, during 1971 when students were in ninth grade, they responded to additional attitude items on the questionnaire at the beginning and end of that school year. These questions, together with the aspiration items, were later grouped into five indices designed to measure students' openness to change - their readiness for new experiences. For each index, two or three questions were grouped as a Guttman scale.²

These indices and their short titles were: DISSATISFACTION which measured student's desire to live in a way different from that of his parents; CITY which measured desire to live and work in the capital city; INFORMATION which reflected student interest in non-instrumental information, information which had no clear relation to job success; RISK which measured preference for a risky but exciting, as opposed to a secure but duller job; ASPIRATION which was a combined educational/occupational aspiration index. DISSATISFACTION, INFORMATION and RISK were three point scales; CITY and ASPIRATION two point scales. All achieved Guttman scalability over .60 and reproducibility over .90.

No attempt can be made here to present an exhaustive picture of the interrelations among all the media ownership and use variables, the socioeconomic and other control variables and the dependent attitude scales (see Hornik, 1973). Rather, selected results will be reported in detail insofar as they illuminate the relation of media use and

² Complete coding information, Guttman scale cut off points and coefficients may be found in the appendix.

rising expectations.

Television ownership and use proved to be the most useful of the media variables. Two reasons account for this. TV ownership and consequent use was growing rapidly in the sample. During the three years, the percentage of students reporting that their families owned television sets rose from 38 percent to over 50 percent; television watching increased apace. This provided a subsample of usable size which was in the process of being affected by new media access during the study.

In addition the content of television programming was clearly different from the non-mediated experiences of its audience. In an earlier section of this paper, doubt was expressed about the amount of challenging information radio really provided. That doubt must be more pronounced in the El Salvadoran context, where no one in the sample lived far from a town, nor more than a few hours bus ride from the capital city. The content of radio programs, largely national in origin, was unlikely to be predominantly alien to these listeners. Television, in contrast, depends almost entirely on externally produced programs. The most popular are American adventure/western series like Bonanza. Soap operas produced in other Latin American countries and musical/variety hours a la Tom Jones also have adherents. None reflect Salvadoran lifestyles or culture; only soap operas and a few other programs of Latin origin have familiar themes. In addition, since both TV channels are commercially owned (by a single company), programs were surrounded by commercials for goods and services. Clearly television in El Salvador provided those "strange people in strange situations, places and times"

and those "things ... hitherto 'seen' only in ... mind's eye."

Analysis of the Data

Cross-sectional relations between the television variables and the dependent variables are not very informative. As would be expected, television ownership and use are positively related to several development variables. Using March, 1971 data (beginning of ninth grade) TV ownership correlates with INFORMATION ($r = .17$), with CITY ($r = .17$), and with ASPIRATION (.202). TV watching shows similar, if slightly reduced, relations with the three indices. More interestingly, neither RISK nor DISSATISFACTION have any significant cross-sectional relations with the television variables. Apparently media use alone was related in a linear fashion neither to increased willingness to take risks, nor to decreased satisfaction with one's parents' lives. It would be possible to treat these as failures to confirm predictions which may be reasonably derived from the media/expectation/frustration hypothesis. However, too many alternative explanations exist for not finding an expected result, and thus a non-finding is not persuasive.

In fact, cross-sectional results such as these are questionable data for testing causal hypotheses. It is too difficult to eliminate alternative hypotheses. While cross-sectional partial correlations and path analysis can be helpful, they depend on limiting assumptions. They do not, in a literal sense, test underlying hypotheses. They account for the observed relations only as best they can.

Suppose we hypothesize that television viewing has a positive causal influence on aspiration, that is not simply a prediction that the

variables are positively correlated. Rather, such an hypothesis predicts that on the average, if an individual increases his television watching, he will at some subsequent time increase his aspirations proportionally.

The hypothesis is that change in one variable will lead to subsequent change in another variable (i.e. positive change in television use will lead to positive change in aspirations). Researchers customarily deduce from that an expectation that a correlation between the variables will be greater than zero and test that expectation, or its null version. Yet such an expectation is at times an inadequate stand-in for the underlying hypothesis.

The problems of dependence on cross-sectional data are well known (Hornik, 1973). In this analysis, the difficulty in testing non-symmetrical hypotheses is particularly troublesome. In this instance, it is predicted that positive increase in television watching will produce positive changes in aspirations; there is no counterbalancing prediction that a decrease in television watching will lead to a decrease in aspirations. Yet there is no way to distinguish a test of that non-symmetrical hypothesis from one of the symmetrical hypothesis as long as one is limited to cross-sectional data. In both cases one can only expect a positive correlation. These considerations led the author to the use of panel data with three or more waves of measurement.

It was possible, with the multi-wave data set gathered in El Salvador, to test whether change in social attitudes was related to prior change in media use. Before presenting the most interesting results from these analyses, however, one final methodological point is in order. Although testing of null hypotheses rather than of null expectations derived from hypotheses are being reported, thus eliminating some alternative

explanations for given findings, there still remain untested alternative hypotheses.

It may be that an apparent instance of change in one variable causing change in another variable is the result of change in both variables being influenced with different time lags by still earlier changes in a third variable. This special type of spuriousness is a possible alternative explanation but, as will be seen below, is not as likely an obstacle to causal inference as it is in cross-sectional analysis.

Also, because analyses are limited to reporting instances of changes in one variable causing changes in another, time lags are important. If the independent variable is very stable, too few instances of true change may occur to permit valid observations of the change process. If the lags are too short or too long, some of the instances of the causal process may be undetected. Some other less likely pitfalls are described elsewhere (Hornik, 1973).

Results

There was no evidence of a link between acquisition of a television set or increase in television watching with subsequent changes in INFORMATION, RISK, or DISSATISFACTION. Although many students greatly increased their television use between the beginning of seventh grade and the end of eighth, they were no more likely than non-increasers to change on these three scales between the beginning and end of ninth grade. There was reliable change on all three dependent scales, but that change was unrelated to media use.

Once again these null findings contradict the hypothesis that

media exposure leads to greater desire to experience the world beyond the individual's immediate environment. There is no evidence that increasing television exposure leads to personal dissatisfaction. However, again null evidence is only minimally persuasive.

Analyses of TV ownership and ASPIRATION and TV ownership (or use) and CITY do, however, provide strong findings relative to the hypothesis. First, an increase in educational and occupational aspirations was facilitated by one's family's purchase of a television.

One approach to testing this hypothesis was to examine only those students who reported no television set at home at the beginning of seventh grade. This group can be divided into two sub-groups, those whose families purchased a television between the time of entrance into school and the beginning of eighth grade, and those whose families did not do so. One can then compare subsequent gain (between the beginning of eighth and the end of ninth grade) on the ASPIRATION index to see if

[Insert Table 1 about here]

television set purchases affected it. As Table 1 indicates, children whose families obtained television receivers increased .4 on the 0-2 ASPIRATION scale, more than twice as much as children whose families did not purchase television receivers before the beginning of eighth grade. The advantage in gain is significant and supports the existence of a causal link between television set ownership and aspirations.

However, there is an alternative hypothesis, that children whose families purchased television receivers were different in other ways from children whose families did not purchase sets. While that is true in that they started out a bit higher than the no-TV group on ASPIRATION, the purchase of the television clearly accelerated the speed

of ASPIRATION change. Figure 1 illustrates that acceleration clearly.

[Insert Figure 1 about here]

Four curves are presented on that graph. Curve (4) represents aspiration scores for the group who remained without television throughout the six waves of the study. They started out the lowest on ASPIRATION, and although they increased consistently, remained the lowest. Curve (3) represents scores of those who purchased television sets between waves four and six. They started above the no-TV group and ended above them, but show no greater acceleration on ASPIRATION. Curve (2) represents those who did not have a TV set at wave one, but purchased one before wave three. At wave one, their aspiration score is higher than the mean of the no-TV group, but it is closer to that group's mean than to the mean of the group which already owned TV at wave one. However, after wave three, these early purchasers show a sharp acceleration in ASPIRATION so that by wave five they are not significantly different than those who have owned television from wave one (curve(1)).

There seems little doubt that the purchase of a television forecasts a time of sharp acceleration in aspirations. However, whether that is the result of the challenging information found in program content, or the simple conformity of student aspiration to the relative status conferred by his family's ownership of a television cannot be determined from the data at hand.

Purchase of a television led to increase in educational and occupational aspirations, but in a quite special population. The respondents were in junior high school; they were therefore an elite. They legitimately believed that they would be able to enter high school or a business course (in a follow-up survey six months after junior

high school graduation over 85 percent of them had entered the next level of schooling, and almost all of the rest were still planning to). They knew that, in the past, education had meant better jobs. They could not know that the educational system was expanding more rapidly than the job market.

Perception of the environment, in this case being in school and knowing that schooling had always provided access to more schooling and better jobs, reinforced increases in aspirations. In this context, mass media exposure (or the status conferred by ownership) accelerated increases in aspirations. It is the contention here that such an acceleration would not have occurred if these respondents were not in school. This hypothesis could not be verified since no matched sample of out-of-school students was studied. However, its logic seems powerful.

It does not seem reasonable that many first or second grade dropouts, four to six years out of school, would legitimately expect to re-enter the school system and complete primary school, never mind high school or university. Such an individual certainly would have known that few of his peers had done so. Although every seventh grade class included one or two students well past the usual entrance age, the percentage of dropouts who re-entered after four or five years could have been no more than two or three percent. If the environment did not reinforce increasing expectations, it seems unlikely that such expectations would have been created by the media. Of course, if primary school equivalence courses had been offered on TV or radio, or training programs were widely available, increases in aspiration

could well be accelerated. Logically, increases in expectations depend on the belief, justified or not, that such expectations can be achieved.

Evidence that aspirations are not accelerated inordinately by exposure to mass media comes from the relation of television purchase and viewing and desire to live and work in the capital city. The positive cross-sectional correlations between television ownership and viewing and CITY have been noted. If any inference about media influence was to be drawn from these cross-sectional correlations, it would be that television use positively influenced desire to move to the city.

Nevertheless, that inference would be incorrect; there is convincing evidence that the influence of television use is negative. CITY, it will be recalled, was measured on two questionnaires, administered at the beginning and end of the ninth grade year (waves five and six).

[Insert Table 2 about here]

In Table 2, disattenuated³ correlations between the various change scores on television ownership and change in CITY between waves five and six are reported. It will be noted that all the correlations are negative and at $r = -.09$ or below. There is clear consistency within the matrix, recalling that the diagonal coefficients report on the effects of TV ownership change during four different time periods. The entry in the lower left hand corner is the cumulative relation of all change in television ownership between wave one and wave five on change in CITY. Its magnitude ($r = -.329$) is impressive. It is worth noting in addition

³ Reliability was quite high for television ownership measures, and varied from .81 to .87. CITY estimated reliability was .61 at both waves. Disattenuated correlations among change scores were calculated according to Cronbach and Furby (1970), formula #18.

that the parallel uncorrected (attenuated) coefficient is $-.086$ significant at $p = .013$.

This negative relationship is further supported when the mean changes in CITY for particular TV ownership groups are reported. Again, with such comparisons it is possible to directly test the non-symmetric hypothesis relating increases in TV ownership to subsequent changes in CITY, ignoring effects of decreases in TV ownership on CITY. The latter relation was not a concern of the theory. No predictions were made about those who owned television receivers at the beginning of the study. If they are eliminated from consideration, leaving only non-owners at wave one for study, a direct test of the hypothesis is possible.

[Insert Table 3 about here]

In Table 3 the results of two such comparisons are displayed. Among those who owned television receivers at wave five but did not own them at wave one, a slight decline on the CITY scale was reported. In contrast, those who remained without television through wave five increased their CITY scores. The difference was significant at $p < .05$. If the independent variable is limited to change in TV ownership between waves three and five the difference between subgroups is even sharper. Once again, those who do not have television receivers at either wave increase their CITY score significantly ($p < .01$) more than those whose families purchase television receivers between those waves.

In a similar way, if non-viewers or low viewers of television at wave one are divided into those who increase viewing sharply (to at least five times per week) by wave five and those who do not, those who increase watching gain significantly ($p < .01$) less on CITY than those who do not increase. Change in viewing is inversely related to

change in CITY (Table 4).

[Insert Table 4 about here]

This evidence is compelling. It justifies the inference of a causal relation. Television owning and watching serve as a cathartic for the desire to live in the city. A replacement effect is apparent. Rather than generating more desire to move to the city, television ownership and viewing reduces that desire.

What is happening? Media use not only does not accelerate increasing desire to move to the city, it appears to decelerate it. Television and the city are both sources of information about the outside world, about material goods and ways of living different from those within an individual's personal experience. Acquisition of a television and exposure to its excitement implies a heavy challenge. It may be about all that an individual can handle. He needs to integrate what he learns from the mass media into his day to day life, into his picture of the world. He is not ready for more new experience (moving to the city).

Stated more simply, tolerance for new experience is limited. Use of television content, at least over the short term lessens interest in alternate sources of new experience like the city.

If the experiences mediated through television can be successfully integrated into an individual's understanding of the world then he may again be ready for other sources of new experience. If television can no longer supply it, he will seek new sources of excitement. In this sense, no long term depressing effect of a television purchase on urban migration should be inferred from the data reported above. In fact, if television mediated experiences are successfully integrated, the individual

may be ready for even larger new experiences. He may, in the long run, increase his desire to move to the city more than he would have otherwise.

Conclusion

These results suggest the notion that a man chooses aspirations for himself consistent with his perception of his environment. The members of the sample did not permit themselves to be snowballed, with exposure to media accelerating desire for other experiences. Educational and occupational aspirations increased as a result of television purchase under circumstances which reinforced the increase. The tendency to increase desire to live in the city was suppressed under the same stimulus. Aspirations favoring urban life were perceived less necessary when a television set arrived in the home.

In conclusion, an individual uses the content of mass media in ways consistent with his environment. When that environment rewards increase in expectations, mass media exposure appears to facilitate these increases. However, as long as the environment cannot reward, or does not require, increases in expectation, the influence of media exposure on these expectations will be minimal.

The data are consistent with these interpretations. There are two conditioning statements, however, which should accompany them. First the data were not gathered with a priori predictions conforming to the eventual findings. Rather an original hypothesis that media use would cause increases in all of the dependent indices had to be reformulated as a result of the television exposure/CITY findings. The modification of the mass media/frustration hypothesis, and the suggestion of an environmental consistency theory of mass media use were the result.

They are post hoc speculation on unexpected findings; as such other explanations consistent with the data have equal legitimacy.

Secondly, as has been mentioned, the population from which the sample was drawn is a special one. Many readers will be wary of generalizing a theory based on data gathered from junior high school students to a population of adult illiterate peasants, or urban factory workers. That wariness is well justified. Generalization to other populations will depend on research directed to them.

TABLE 1
Increase in ASPIRATION Scores as a Function of Change in
TV Ownership

TV Ownership Beginning / Beginning of 7th / Beginning of 8th	ASPIRATION Beginning 8th	ASPIRATION End of 9th	Change in ASPIRATION
No / No	.608	.809	+.201*
No / Yes (N = 157)	.854	1.275	+.421*

* Significant difference at $p < .05$

TABLE 2

Disattenuated Correlations between Change in Television Ownership (Between Wave(Column) and Wave(Row)) and Change in CITY Between Waves Five and Six

	Beginning TVOWN wave			
End TVOWN wave	1	2	3	4
1				
2	-.177			
3	-.220	-.093		
4	-.273	-.150	-.106	
5	-.329	-.222	-.177	-.109

TABLE 3

Change on CITY between Waves Five and Six as a Function
of Prior Television Purchase

Wave 1/Wave 5 TVOWN	Change on CITY
No/No	+.117* (n = 332)
No/Yes	-.037* (n = 135)

* significant difference at $p < .05$.

Wave 3/Wave 5 TVOWN	Change on CITY
No/No	+.160* (n = 332)
No/Yes	-.141* (n = 71)

* significant difference at $p < .05$.

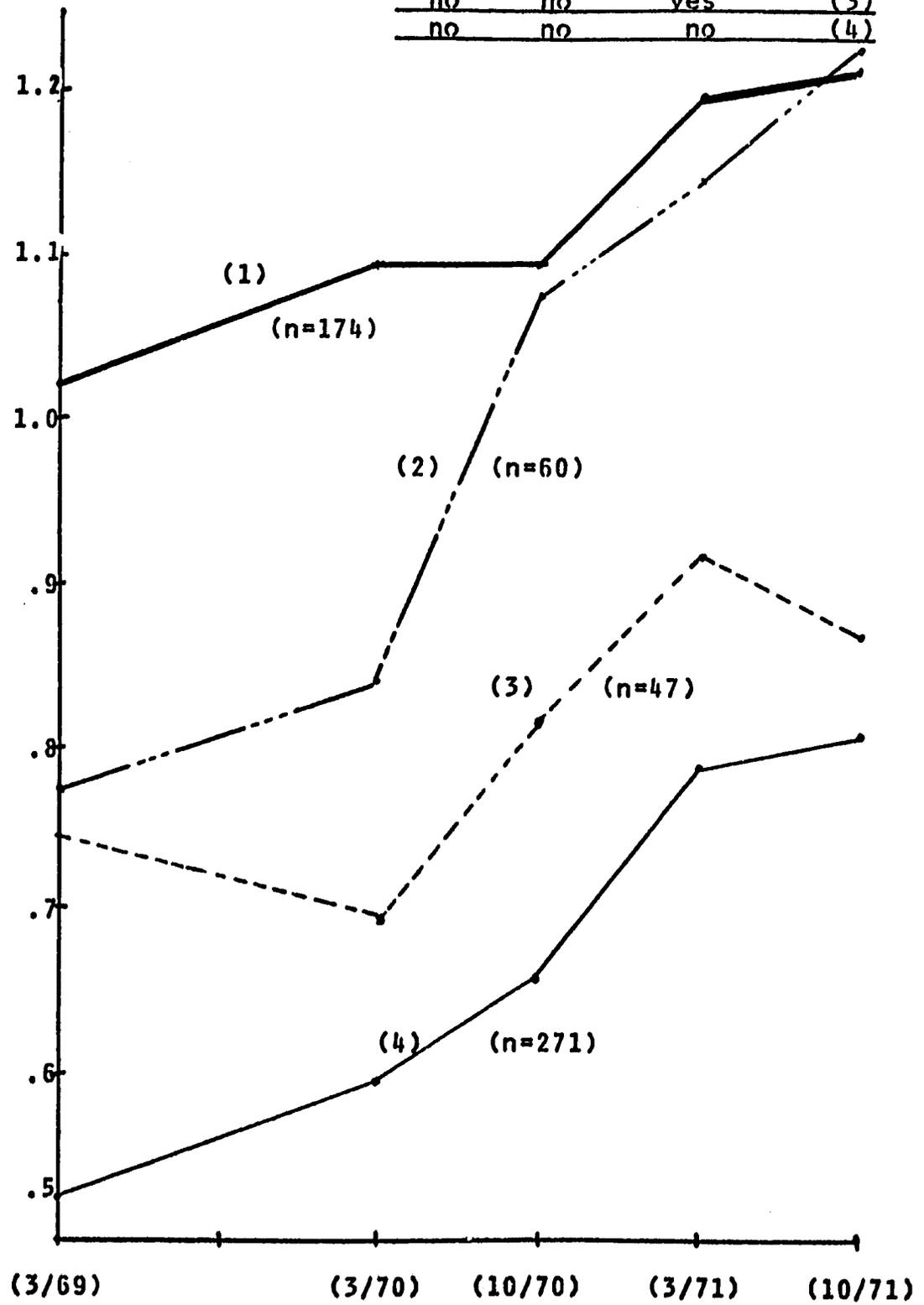
TABLE 4
CITY56 by Change in TV Watching

Wave 1/Wave 5 TVVIEW	Change on CITY
1 or 2 times-week/ 1,2,3 or 4 times-week	+.135* (n = 236)
1 or 2 times-week/ 5,6 or 7 times-week	-.079* (n = 140)

* significant difference at $p < .01$.

FIGURE 1 : ASPIRATION BY TV
OWNERSHIP OVER TIME

TVOWN AT WAVE	1	2 or 3	4,5 or 6	# of curve
yes	yes	yes	yes	(1)
no	yes	yes	yes	(2)
no	no	yes	yes	(3)
no	no	no	no	(4)



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APPENDIX

OPERATIONALS; CODING AND GUTTMAN SCALE INFORMATION FOR DEPENDENT VARIABLE SCALES

DISSATISFACTION

1. People should be satisfied with what they have.

'5'
Completely
agree
'4'
Agree
'3'
I'm not
sure
'2'
Disagree
'1'
Completely
Disagree

2. I will conform to having a life like my parents'.

'5'
Completely
agree
'4'
Agree
'3'
I'm not
sure
'2'
Disagree
'1'
Completely
Disagree

3. How do you think the lives of the majority of your classmates will develop?

- '1' Very similar to that of their parents.
- '2' In general similar to that of their parents.
- '3' In some ways the same as that of their parents, and in others different to theirs.
- '4' Generally different from that of their parents.
- '5' Very different from that of their parents.

Guttman Scale Information:

Cutoff points

item 1: 0=3,4,5 ; item 2: 0=4,5 ; item 3: 0=1,2,3,4
 1=1,2 1=1,2,3 1=5

Coefficients	Wave (date)	
	5 (3/71)	6 (10/71)
Reproducibility	.90	.94
Minimum Marginal Reproducibility	.73	.76
Gain	.17	.18
Scalability	.63	.75

INFORMATION

1. When a man has found a secure job he no longer has to concern himself with learning new things.

'5'
Completely
agree
'4'
Agree
'3'
I'm not
sure
'2'
Disagree
'1'
Completely
Disagree

2. Really, it isn't very important that a man know about international news, his life will remain the same.

'5'
Completely
agree
'4'
Agree
'3'
I'm not
sure
'2'
Disagree
'1'
Completely
Disagree

Guttman Scale Information:

Cutoff points

item 1: 0=3,4,5 ; item 2: 0=3,4,5 ; item 3: 0=0
 1=1,2 1=1,2 1=1

Coefficients	Wave (date)	
	5 (3/71)	6 (10/71)
Reproducibility	.94	.93
Minimum Marginal Reproducibility	.80	.77
Gain	.13	.16
Scalability	.68	.71

ASPIRATION

1. To what level of studies do you expect to arrive?

- '2' -- Junior High School
- '3' -- Business Course
- '4' -- High School
- '5' -- University
- '6' -- Post graduate studies

3. What career would you most like to follow when you finish your studies?

- coded '1' if career required only Junior High School education.
- coded '2' if career required a High School degree.
- coded '3' if career required University training.

Guttman Scale Information:

Cutoff points

item 1: 0=1,2,3,4 ; item 2: 0=1,2
 1=5,6 1=3

Coefficients	Wave (date)	
	5 (3/71)	6 (10/71)
Reproducibility	.93	.92
Minimum Marginal Reproducibility	.53	.56
Gain	.40	.36
Scalability	.86	.82

