

THE EMERGENCE OF DIFFUSION THEORY IN LATIN AMERICA: A RESTROPECT ANALYSIS*

Jesús Arroyave Cabrera

JESÚS ARROYAVE CABRERA

PH.D. EN COMUNICACIÓN DE LA UNIVERSIDAD DE MIAMI. MASTER EN
COMUNICACIÓN DE LA UNIVERSIDAD DE RUTGERS. MASTER EN EDUCACIÓN
DE LA UNIVERSIDAD JAVERIANA. PROFESOR ASISTENTE DE LA UNIVERSIDAD
DEL NORTE

CORRESPONDENCIA: UNIVERSIDAD DEL NORTE, KM 5 VÍA A PUERTO
COLOMBIA, BARRANQUILLA (COLOMBIA).

jarroyav@uninorte.edu.co

* Una versión preliminar de este artículo fue nominado como mejor artículo de investigación en la División *Intercultural & Development Communication* en la International Communication Association Conference, que se llevó a cabo en Dresden, Alemania (2006).

RESUMEN

La difusión de innovaciones es una de las teorías más ampliamente estudiadas y aplicadas en diferentes contextos en todo el mundo. Sin embargo, no ha sido así en América Latina. La mayoría de la literatura relacionada con la difusión de innovaciones en el continente mantiene un enfoque crítico. El presente artículo analiza cómo los primeros estudios de difusión de innovaciones fueron conducidos y aplicados en América Latina. Cuatro tradiciones intelectuales que fueron muy importantes en la Academia Norteamericana (el paradigma dominante, la conceptualización lineal de comunicación, la teoría de la modernización y la noción de los efectos poderosos) dejaron una huella en la teoría difusionista que guiaron su aplicación en una dirección muy particular en la región. No obstante, la aplicación de esta teoría en el continente parece haber dejado cierto estigma que ha mantenido alejado a los nuevos académicos de esta práctica y popular teoría.

PALABRAS CLAVES: Difusión de Innovaciones, paradigma dominante, modernización, América Latina.

ABSTRACT

Diffusion of Innovation is one of the most widely studied and applied theories in different contexts all over the world. However, this is not the case in Latin American countries. Most of the literature that deals with Diffusion of Innovation maintains a critical approach. This paper reviews the way that earlier diffusionist studies were carried out and applied in Latin America. Four intellectual constructions that were pervasive in the mainstream American academy (the dominant paradigm, the linear conceptualization of communication, the modernization theory and the notion of powerful effect) left a mark on the earlier diffusion theory that guided its application in a concrete direction in the region. However, it seems that the application of the theory in the continent left a type of stigma that held new Latin American scholars away from this practical and popular theory.

KEY WORDS: *Diffusion of innovation, dominant paradigm, modernization, Latin America.*

INTRODUCTION

Diffusion of innovations is one of the most widely studied and applied theories in different contexts all over the world. This theoretical model has been helpful not only in identifying the different stages that a particular innovation goes through, but also as a main theory in communication development. In fact, the diffusion model was the theory that shaped development research in the early 60's in the United States. The scope of this theory is so broad that research and application of this model can be found in such diverse areas as sociology, public health, geography, agriculture, marketing, education, and communication.

The literature about diffusion theory is abundant and diverse. The range of areas in which the theory is applied confirms its popularity: innovations in organizations (James, Wotrung, & Forrest, 1995; Rice, 1993; Valente, 1995; Rice & Webster, 1998; Crawford & Strohlich, 2001); in newspapers and newsrooms (Niebauer, Abbot, Corbin & Neigergall, 2000; Heikinnen & Reese, 1986; Garrison, 2000, 2001); in adoption of new technology (Lin, 1994, 1998; Lin & Atkin, 1998. Nuendof & Atkin, 1998; Dutton, Rogers & Jun, 1987a.; Dutton, Rogers & Jun, 1987b; Dupagne, 1999). There is also an interesting body of research related to different criticism of the model (Havens, 1972; Grunig, 1971; Beltran 1974, 1975, 1976; Bordenave, 1976; Mattelart, 1997, 2001; Waisbord, 2001).

In spite of its popularity in the mainstream American academy –Rogers and Singhal (1996) claimed that there have been more than 5,000 diffusion studies published in different areas– one can barely find articles that apply some aspect of the theory in Latin America (Arroyave, 2003). Most of the literature that deals with Diffusion of Innovations maintains a critical approach (Beltran, 1974, 1975, 1976; Diaz Bordenave, 1976; Schenkel, 1981; Schmucler, 1989; Matellart, 2002; Catalan & Sunkel, 1992; Pereira, Bonilla & Benavides, 1998; Vargas, 2000). It seems that the way the theory was applied in its early stage in Latin America

was such that most of the scholars in the region developed a certain resistance to it. Most of the studies have criticized the conceptual component of the model, but until to now there have been no detailed reviews focused on the way those studies were carried out.

The purpose of this review is to analyze how the original assumptions of early diffusion theory had a particular impact on the way this theory was applied in Latin America. Intellectual constructions, such as the dominant paradigm in development, the modernization theory, the linear conceptualization of communication, and the notion of the powerful media effect, were so pervasive in the American academy that they left their mark on the earlier diffusion theory. This mark was reflected in many diffusion studies conducted in Latin America.

This study illuminates how these four conceptual constructions permeated most of the diffusion research in the region. In order to do so, first, the theoretical background of Rogers' original model is reviewed. Then empirical studies of diffusion research in Latin America are analyzed in light of these four theoretical constructions. Finally, some conclusions of the implication of this theoretical framework are addressed in the discussion section. The contribution of this paper to Diffusion of Innovations research lies in the analysis of empirical evidence that identifies how earlier paradigmatic ideas about communication and development shaped the first conceptualization of the Diffusion of Innovations theory.

THEORETICAL BACKGROUND OF THE EARLY DIFFUSION THEORY

Theoretical models are not expressed in a vacuum. They are strongly influenced by the group of concepts, notions, ideas and intellectual constructions of their time (Kuhn, 1970). Likewise, the social and economic context plays a fundamental role in the process of elaborating any particular conceptualization. By identifying paradigmatic ideas that circulate at a certain time, it is possible to get some insight to better understand a phenomenon.

It is in this context that it is possible to find the conceptual roots that help elaborate and refine Diffusion of Innovations theory.

Four intellectual constructions were fundamental in Rogers' earlier definition of diffusion. These constructions were a particular set of ideas about development frame within the capitalist/liberal model called the dominant paradigm, a particular conception of communication called the linear model of communication, an influential approach to development and economy of the 1950's and 1960's known as modernization theory, and a notion of powerful media effect called the *magic bullet theory* or the *hypodermic needle*. These four constructions left a particular mark on early diffusion theory that guided diffusion research in a concrete direction in Third World countries. Sometimes, this direction was misled and brought big and costly mistakes to particular regions. This section briefly elaborates on these four intellectual constructions that were so pervasive in most of the diffusion research.

THE DOMINANT PARADIGM IN COMMUNICATION DEVELOPMENT

The dominant paradigm has been characterized by four basic features (Rogers, 1976, 1983; Mowlana & Wilson, 1990). These are:

1. Economic growth through industrialization and accompanying urbanization.
2. Capital-intensive technology mainly imported from the more developed nations and labor-saving technology mainly transferred from industrialized nations.
3. Centralized planning mainly by economist and financial experts, to guide and speed up the process of development.
4. Assertion that the causes of underdevelopment lay mainly within the developing nations, rather than in their trade or other external relationships with industrialized countries. The culture of developing nations was considered an obstacle to achieve the desired stage of development.

The dominant paradigm emerged in the liberal/capitalist model of development and it was based on the notion of moder-

nization in the West and within capitalist economic system (Mowlana & Wilson, 1990). Authors such as Weber, McClelland, Hagen, Lerner, Pye, Schramm, and Rogers, subscribed to the ideas of the dominant paradigm. In synthesis, the dominant paradigm pushes for underdeveloped nations to imitate what Western nations have done to achieve development. Likewise, the dominant paradigm was strongly influenced by the idea that changing behavior patterns was the panacea for instilling modern values in developing nations.

LINEAR MODEL OF COMMUNICATION

The way that Rogers (1962) defined and used communication reflects the strong influence of the Shannon and Weaver model.

Communication entailed a process by which an idea is transferred from a source to a receiver with the intent to change his behavior. Usually the source wants to alter the receiver's knowledge of some ideas, create or change his attitude toward the idea, or persuade him to adopt the idea as part of his regular behavior (Rogers, 1962).

The linear model of communication is obvious in this definition. This particular conception of communication implied that the source is in power and imposes in certain ways his/her point of view. Likewise, the definition was aligned with the dominant paradigm in which the changed behavior was seen as the desired goal to reach.

By the same token, Rogers highlights Lasswell's model of communication as one valid for any communication research. The famous Lasswell formulation, "who" says "what" through what "channels" to "whom" with what "effect" has been critiqued for its linear formulation in which there is no space for a more horizontal interchange of information. As a result, the leading communication research was conducted by a source-dominant approach (Rogers, 1983). This particular approach is clearly stated in Rogers' earlier formulation. "The diffusion process is the spread of a new idea

from its source of invention or creation to its ultimate users or adopters” (Rogers, 1962: 13).

Likewise, the model encompasses the idea of centralized planning led by the economic elite, in order to achieve developmental goals. In this rigorous model of communication participation or horizontal communication was not considered possible. Similarly, the idea of the audience as active or self-empowered to decide the adoption process was not considered in this earlier model.

DIFFUSION OF INNOVATIONS AND MODERNIZATION THEORY

Modernization theory suggests that Western capitalist countries are the models to follow to achieve development. Followers of modernization theory divided society basically in two kinds of groups, the traditional societies and the modern one. The latter one was the Western societies. Traditional societies were characterized as resistant to change and more deeply grounded in their customs and values. On the other hand, modern societies were seen as the ones that have the right set of values for success.

Modernization theory was also largely influenced by the dominant paradigm (Melkote & Steeves, 2001; Melkote & Rao, 2001). Ideas, such as changed behavior, industrialization as an important means for achieving development, centralized planning goals and imitations of Western values were very important in this theory.

Walter Rostow (1960) is perhaps one of the most well-known scholars who represented this theory. In his attempt to explain why certain countries become affluent and others not, he advanced four stages. In the first stage, there is a strong resistance to change. Output is limited because of the inaccessibility of science and technology. Values are ‘fatalistic’. This is called traditional society. Gradually, this sense of traditionalism is lost and technology maturity appears as an important condition in society. In the second stage, there are clusters of new ideas favoring economic progress arising and new levels of education, entrepreneurship,

and institutions capable of mobilizing capital. In the third stage, agriculture is commercialized and there is a growth in productivity. When the community reaches the fourth stage, which is high mass consumption, the society becomes modern. At this stage, economic growth makes sure that basic needs are satisfied.

According to Rostow (1960), Western European nations and the United States are the models that latecomers would like to replicate. What remains clear in this particular approach is that the values that characterized Third World countries are in some manner obstacles in the process of modernization. Third World countries were considered as traditional and backward. The United States and Western countries were considered as modern and advanced. Authors, such as Everett Hagen and David McClelland, embraced Weber's idea that development of capitalist economic system is based on the values that characterized *Protestant Ethic*.

It was clear that modernization theory maintained an ethnocentric point of view and served as a paradigm that supported the expansion of the capitalism system. Mowlana and Wilson (1990) contend that, "this type of literature has been under attack for stressing the economic and historical legacy of the colonial era, maintaining the imbalance of the center-to-periphery flow economically and culturally" (p. 53). Furthermore, some scholars argue that modernization theory helped to legitimize, as progressive and necessary, the United States' foreign aid policy, trade policy, and international relation policy, and the U.S. expansionism since the nineteenth century, especially in Latin America and the Pacific (Rojas, 1999).

This is the context in which ideas were discussed by such scholars as Daniel Lerner (1958) and Wilbur Schramm (1964) came to play an important role in the relationship between modernization theory and communication. In order to change the traditionalism that existed in many underdeveloped countries and promote modern values, mass media were considered as a crucial instrument to use in the modernization process. Exposure to mass media was considered one of the factors that could bring

about modern attitudes. Therefore, communication development acquired a particular meaning that was aligned with modernization theory. As Waisbord (2001) pointed out:

Development communication was equated with massive introduction of media technologies to promote modernization, and the widespread adoption of the mass media (newspaper, radio, cinemas, and later television) was seen as pivotal for the effectiveness of communication interventions. The media were both channels and indicators of diffusion of modern culture, and also, suggested the degree of modernization of society (p. 7).

Thus, the way diffusion theory plays an important role in underdeveloped countries that was apparently clear. Because industrialization was seen as the key to development, diffusing the adoption of new technology by mass media was considered the natural step to promote economic growth and reach the stage of development. In the types of adopter categories advanced by Rogers (1962), the earlier adopters, characterized as more literate and with higher status, were compared with modern citizens. On the contrary, those who embraced the traditional values of non-Western countries were considered laggards. Thus, a vast majority of the population in the Third World countries, but particularly peasants and low-income people, comprised to this particular category. However, such approach maintained a reductionistic perspective. It focused on the individual and oversaw society's power structure.

THE MYTH OF THE POWERFUL EFFECT

The *magic bullet theory* and the *hypodermic needle*, the earliest conceptualization of media effect, assume that media were powerful and exerted a direct, uniform, and powerful effect over the audience. In the 30's and 40's "the mass media were viewed as powerful instrument that could be successfully used to manipulate people's opinion and attitudes, and thereby their behavior, in a relatively

short period of time” (Melkote & Steeves, 2001: 106). The earlier conceptualization of diffusion theory embraced such a notion. Diffusion researchers had great confidence that mass media *caused* social change and economic development. Researchers reported how peasants, as a result of being exposed to mass media, are motivated to change their behavior and adopt an innovation, and, consequently, reach development. However, such change was more in the theory than in the practice.

So far this paper has reviewed some of the theoretical background that was used in diffusion theory. The next section will analyze some of the earlier research studies in the light of the elements that have been reviewed.

EARLIER DIFFUSION STUDIES IN LATIN AMERICA

TRADITIONALISM AND MASS MEDIA

In an article published in 1963 in the *Journalism Quarterly* entitled “The mass media in an underdeveloped village”, his author Paul Deutschmann, starts with the following paragraph:

The spread of mass communication across the cultures of man is one of the dramatic social changes of the present century. The inexorable shift from oral-tradition to mass communication systems have been extensively documented and explored. The data have prompted Lerner to note that there is no point a reversal of the trend. While it is clear that the United States has been at the forefront of this “communication revolution,” she is rapidly being joined (and sometimes is surpassed) by other developed nations of the world. And at the same time, the lesser developed societies are moving forward with increasing use of radio and television, film, newspapers, magazines and books (p. 27).

Several ideas that were circulating at that time related to the modernization paradigm were clearly stated in this introductory paragraph. First, mass media were considered as independent variable that could bring about social change. Second, modernization could be achieved by migrating from oral communication to mass

communication systems. Yet according to Lerner, traditional interpersonal communication enforces traditional attitudes and mores whereas mass communication teaches new skills, attitudes, and behavior (Mowlana & Wilson, 1990). Thus, mass media were the “magic multiplier” that transformed any social contexts.

Then, the author mentions as a goal “an investigation of a very small part of this overall shift toward media systems, focusing upon an Andean village in Colombia” (p. 27). As Deutschmann clearly states:

The spirit of this analysis is based upon the assumption that certain prior characteristics of individuals and communities prepare them to receive mass communication, and that upon receiving mass message certain changes in knowledge, beliefs, aspirations and behavior occurs (p. 28).

These ideas related to the dominant paradigm are essentially rooted in the first set of dominant models of communication and development that Mowlana and Wilson (1990) characterized as the liberal/capitalist Model. McClelland and Hagen, two exponents of this model, stated that, “social structure and economic growth are primarily functions of personality and psychological motivation” (Mowlana & Wilson, 1990: 63). McClelland’s theory, for instance, asserted that the need for achievement is strongly related to economic growth and development. Hagen’s theory of entrepreneurship maintains that economic growth can occur only when there is a definite change from traditionally oriented personality, associated with self-centeredness, low esteem, and authoritarian overtones, to a more modern, open and innovative personality structure (Mowlana & Wilson, 1990).

Likewise, in the above paragraph, it was implied that the traditional stimulus-response paradigm, very common in the pragmatic research of the fifties, was also present in such formulation. Media messages were the stimuli triggering changes at the cognitive, attitudinal, and behavioral level. These theoretical elaborations are grounded in psychological theories of change, which

gave too much weight over the individual and ignored essential elements on the context, the culture and the role of human beings as social entities.

Further in the article, the author explains, “Four variables which previous studies suggest should be related to being in the audience of the mass media were examined. These included educational level (literacy and years of schooling); economic level (size of farm); family size and age” (p. 30). Later, the author reports, “In every instance, the literate group shows more exposure opportunity than the illiterate. The differences extend to radio and movies, even though these media do not “demand” literacy of audience members” (p. 30).

Other findings reported in the article are:

The best single economic index among our data was size of the farm... Only 10 households had sets, but these were predominantly from the larger farms. Using the full media index, which includes the added weight of “number” of book possessed, we find a similar relationship (p. 31).

Individuals with higher media exposure opportunities show higher knowledge and opportunities more consistent with the inferred messages (p. 32).

We found that the method of receiving information about farm innovation is related to the general tendency to be “in the audience”, and that the tendency to innovate is also related (p. 33).

While spray guns to apply fungicides were almost universally used in the village, the high media group adopted them almost a year and a half earlier than the slow media. A similar difference existed for chemical fertilizers (p. 33).

What the author reported here was nothing new for the majority of people who live in that rural village. Basically the wealthy, educated landlord owners of huge farms possess different media sets, and they are more aware of any innovations and are willing to try them. In a society where social and economic differences are so marked, the decision to adopt or do not adopt an

innovation that costs money is not up to an individual. Likewise, the land distribution in Latin American countries is very particular. In many countries the majority of rural areas belong to few landlord families. Peasants work for a particular landlord and they have neither the initiative nor the resources to purchase and adopt any technological innovations for agriculture purposes. On the other hand, landlords with higher economic status and education are in a different social and economic level that allows them to decide what innovations could be appropriate for them.

In this context, Beltran's (1976) question about diffusion theory in Latin America made plenty of sense:

Diffusion research has shown us that those few privileged farmers who 1) own land (particularly more land than most others), 2) enjoy a high socioeconomic and educational status, and 3) have ample mass communication opportunities are the most innovative in adopting new agricultural technologies. Did we not somehow know this long ago in Latin America? (p. 21).

MODERNIZATION AND PEASANTS

In a similar fashion as Deutschmann article, Rogers (1965) introduces his article "Mass media exposure and modernization among Colombian peasants" in the following way:

Most observers generally agree with Pye that "It was the pressure of communications which brought about the downfall of traditional societies". Exposure to mass media is a crucial cause of large-scale directed social change and economic development in developing societies (p. 614).

The above rather strong assertion is rooted in the notion of the media's powerful effect. The earlier theoretical model called the *bullet theory* and the *hypodermic needle theory* stated that media have a strong, direct, and uniform impact on individuals. According to this model, the audience was considered "an aggregate of relatively 'atomized' individuals acting according to their personal interest

and little constrained by social ties and constraints” (McQuail & Windahl, 1981: 42). Thus, mass media were thought to have such a strong and direct effect that could cause social change. However, Paul Lazarsfeld and his colleagues (1948) questioned the core of such model in an empirical study done in the 40’s in the United States. As a matter of fact, *The People’s Choice*, the study done by Lazarfeld, inaugurated what has been called the era of the limited effect in communication theory (Baran & Davis, 1995). Nevertheless, in earlier diffusion studies conducted in Latin America, the notion of the media’s powerful effect was still embraced.

Then, the author states two goals of his study:

One basic proposition to be explored in the present investigation is that exposure to mass media on the part of peasants leads them down the road of modernization (p. 615).

A second basic proposition to be investigated is that certain antecedents, such as literacy, status, age, and cosmopolitanism (an individual’s orientation to the outside world) determine, in part, the extent of peasants’ exposure to mass media (p. 615).

Related to the second proposition, the author reported the following findings:

- There was an especially high correlation between mass media exposure and the number of trips to urban centers (Cosmopolitanism) “which is not surprising, as both media exposure and urban contact are means by which villagers learn news ideas” (p. 619).
- Education and social status are both more highly related to mass media exposure than age, which consistently is negatively related to media exposure (p. 619-20).
- “Older peasants, who are less likely to be literate and more likely to have relatively low levels of education, attend less to the mass media” (p. 620).

Once again the findings were nothing new in the context of Latin American countries. Those cosmopolite, characterized as

being of high economic status (Rogers, 1962), that hold a higher educational and social status are the ones more exposed to mass media and therefore more willing to be receptive to any innovation. Yet, earlier diffusion studies failed to identify variables such as social status, educational level, income level, and cosmopolitanism as part of a broader and more crucial factor: society's power structure (Beltran, 1975). Yet certain concepts of diffusion model hide or disguise a socio-economic reality that is especially severe in Third World countries. As Beltran put it,

The classic diffusion model of research has often used such concepts as "leadership", "cosmopolitanism" and "reference group". Cuellar and Gutierrez contend that "leadership" hides "elite or oligarchy", "cosmopolitanism" disguises the connection of interest between the rural and urban power holders, and "reference group" serves to dilute the reality of the "internal domination" suffered by the rural population (p. 35).

Diffusion theory was applied in Latin America following the North American model which has been successful in many agricultural innovations. However, Latin America had a different socioeconomic reality. As Diaz Bordenave (1976) pointed out:

Indeed, because the classical diffusion model was formulated under significantly different socioeconomic conditions and in agreement with an ideological stance not compatible with the Latin America reality, the types of research questions that were asked by Latin American researchers who used that diffusion model unquestioningly do not get to the real issues affecting rural development (p. 53).

Therefore, the author suggests a new direction in diffusion research in Latin America. This new direction poses questions such as:

- 1) What criteria guide the choice of innovations that are to be diffused: the public welfare, 2) increased production of goods for export, 3) maintaining low prices for urban consumers or 4) increased profits for society's elite like large landowners?

- 2) Who decides what kind of innovations should be diffused and developed?
- 3) What effect will the adoption of certain innovation be likely to have on individual and family welfare? On regional and national development in the short, medium and long range? Will they promote employment or unemployment, fixation on the rural population or migration to the cities, enrichment of the already rich or better income distribution?
- 4) What is the nature of the society's social structure, and what influence does it have over individual innovation decisions?
- 5) Are the technological innovations being diffused appropriate, well proven, and adequate for the stage of socioeconomic development of the nation? Are the innovations designed especially for commercial farmers or for subsistence peasants, for elites or for urban poor?
- 6) Do the innovations take into account regional and local differences in ecology, economy, farming habits, and cultural norms?
- 7) How autonomous or independent is the country from external forces which affect its economy and political decision?

However, these questions were ignored in most of the early diffusion studies in the region.

In another part, Rogers mentions that

The present measure of empathy, based closely upon Lerner's, scored the ability of farmers to put themselves in the roles of a village leader, an extension agent, a district official, the national minister of education, and the president of Colombia (p. 620).

Empathy was measured as a way to reinforce one-way communication, top-down approach. The peasant, as the lower level of the scale, had to accept the point of view of the other, the superior. However, those at the top do not assume the perspective of those at the lower level. Although Rogers (1962, 1983) defines diffusion of innovations as a communication process, his initial formulation was framed within the source-dominant approach. Peasants must

“put themselves” in the role the elite (village leader, extension agent, district officials) and not the other way around.

Rogers also reported a relationship between mass media exposure and *achievement motivation*. The variable achievement motivation was defined as “a desire for excellence in one’s occupation” (p. 621). Rogers further added that, “McClelland argues that achievement motivation is a cause of national economic development and individual modernization” (p. 622). However, McClelland’s ideas were specifically formulated in a particular socio-cultural context: The North America protestant industrial society. In this sense, individualism was an essential component of the core of ideas of such a specific context. According to McClelland, Protestantism, in the form of a religious and ethical framework, promoted the need for achievement among its followers. This, in turn, helped to promote entrepreneurship, which resulted in economic growth. Thus, the *Protestant Ethic* highly rooted in the individualism fueled the development of capitalism.

However, not all societies have the same concept of individualism. As Mowlana and Wilson (1990) mention, “Whereas personality as a Western concept is rooted in individualism, some non-Western views (including Islam) see personality as a central ingredient in the human mode of existence: man’s relationship with God, with other people, and with nature” (p. 55). Therefore, to measure such variable extrapolating a particular vision of the world from an Anglo-Saxon protestant tradition to a rural village in Colombia was essentially misguided. As we mentioned earlier, an ethnocentric point of view permeated most of the early diffusions studies in Latin America.

MODERNIZATION AND “ELITE”

In another article Deutschmann et al. (1961) investigated how mass media were used in Latin America by elites. The researchers interviewed a sample made up by two kinds of individuals. One who had come to the United States for one or two years in a fellowship

program of the International Corporation Administration (ICA); the others, made up by friends of the ICA participants who “do similar work to your own, but who have not been to the United States” (p. 461). The researchers report that, “All of the individuals, ICA and counterpart, worked and most lived in the capital of their countries. This atypical group might be characterized as a “sub-elite” (p. 461).

It seems through the article that the authors want to emphasize the uniqueness of the ICA group. For instance, in further paragraphs they remark that, “This descriptive material should make clear that this is, as suggested, a relatively “elite” Latin America group. Further, it is heavily weighted with individuals who have passed through the complex selection procedure of the ICA and who have been exposed from three months to two years to U.S. culture, educational institutions, governments agencies and private business” (p. 461). Then the authors compare the findings of these two groups with samples of U.S. residents “from whom similar data has been obtained...” (p. 461).

With regard to results, the authors report that

This investigation of mass media use in Latin America has demonstrated that the study group, a professional and technical “sub-elite”, uses the mass media each day to about the same extent as do professional and managerial persons in Midwest U.S. cities. On the other hand, the composition of Latin America use patterns gets a much larger contribution from books and radio than does the North American (p. 472).

Only an elite, but in particular those members of this elite who had been selected by an American organization and had visited the country, could have displayed behavior patterns similar to those of a developed country. It does seem clear now the reason why the authors emphasized many times that the group interviewed was “special” compared with other Latin American citizens.

When the findings that the authors report seem to be favorable to Latin American groups, the explanation that the author provided tended to be biased toward the United States. After all,

the right values for modernization belong to this particular place. For instance, with regard to radio use in Latin America, “The radio use was higher for Latins. This is not a surprise since television is lacking in four countries. (p. 464). With regard to the heavier use of books for Latin Americans, the reason that the authors provided is, “In part, this is explained by the fact many of these professional and technical people are using books-often North American ones-for information relating to their daily work” (p. 464).

With regard to television uses in Latin America, the authors report that, “The use was significantly heavier among ICA participants than among their counterpart...” (p. 464). Interestingly enough are the explanations that the authors present about this situation, explaining that, 1. “That the somewhat higher job level of ICA participants over their counterpart might reflect economic circumstances sufficiently higher to account for possession of a TV set. 2. That the stay in the United States with exposure to TV highly likely, helped “prepare” the participants for television and made them more likely to be innovators in the use of this new communication medium” (p. 465).

Two aspects could be considered for such an explanation. First, the explanation reinforces the idea that innovators are those cosmopolites who are more exposed to different geographical contexts. Second, the idea that modern values can be learned by contagion. The fact that those ICA fellowship workers were exposed to a place in which modern values belong by nature makes them different people. Modern values can be learned not only by exposure to mass media but also by exposure to Western countries. The pro-innovation bias was implicit in Western culture. As a result of this exposure, ICA fellowship members become different people; so different that they could be compared with the Americans. Again, it was clear that the entire article permeated an ethnocentric point of view.

MODERNIZATION, DIFFUSION IN LATIN AMERICA COUNTRIES

Many studies were conducted in the 50's and 60's in which the

idea to diffuse innovation through mass media was the panacea to instill modern values in Latin America. In all those studies, diffusion research appeared mixed with the modernization theory.

- Spector (1963) found that radio programs were clearly effective in influencing villagers to adopt such health practices as vaccination and building of latrines. In the communities that received the radio treatment, radio was reported by inhabitants as the most influential medium in their decision to participate in the health practices.
- McNelly and Deutschmann (1963) found mass media exposure related to knowledge of a number of new topics, including some involving international politics.
- McNelly and Fonseca (1964) found that “exposure to the news through the print media is closely linked to the development of political awareness and participation among university students” (p. 231). In addition, exposure to the print media was found to be highly related to knowledge of world affairs and participation in politics.
- Fagen (1964) found a correlation between politics, socio-economic development, and mass communication.

The diffusion research done in the 50's and 60's from a review of McNelly (1966) concluded that , “Evidence has been cited from a number of recent studies of the role of mass communication in the creation of a favorable climate for modernization in Latin America” (p. 355).

In sum, most of the earlier studies in Latin American assumed that mass media were a powerful tool that could bring about modernization. Most of them assumed that Western values were the right ones for fostering development in this continent. In a majority of them communication was not conceived as a horizontal or reciprocal process. Likewise, the pro-innovation bias of the majority of research leads them to ignore local or contextual aspects of the region in which these studies were conducted.

DISCUSSION

Diffusion of innovations, like any other theoretical model, was strongly influenced by the dominant ideas of its time. As has been previously discussed, four paradigmatic constructions left their mark on the early diffusion theory. These four paradigmatic constructions were the dominant paradigm, the linear communication model, the modernization theory, and the notion of powerful media effect. These intellectual constructions were pervasive and influential not only in communication and development but also in most of the social science. As a matter of fact, some scholars argue that “the modernization paradigm became the intellectual property of all the social sciences” (Hulme & Turner, 1990: 34). These paradigmatic constructions that shaped earlier diffusion theory had a particular impact on the way that this theory was applied in Latin America.

The dominant paradigm as a broader concept was present in all the studies reviewed here. Rogers (1965), Deutschmann (1962) and McNelly (1966)'s articles embraced implicitly the idea that economic growth through industrialization was the key to development. Likewise, in most of the early diffusion studies the goals and objectives to reach were established by an “elite” outside of the community. As Rogers (1976) recognized later, “Central economic planning of development was widely accepted as legitimate and reasonable means by which a nation should seek development goals” (p. 123). Furthermore, the dominant paradigm was also reductionistic in nature. It posited that the causes of underdevelopment lay within the developing countries. Similarly, the culture of Third World countries was the bottleneck that impeded development. However, this paradigm ignored the role that recent decolonized countries come to play in the World economic context. Likewise, the *individual blame bias* tends to ignore the power structure of the society.


The linear conceptualization of communication permeated all the studies that have been mentioned. In none of them did the authors discuss if the innovation of the diffusion of ideas, tech-

nology, and values is something that members of the audience want to adopt. The audience was considered a passive receiver of the messages that are broadcast by the mass media. The messages have their goal: instill modern values and change behavior. However, nobody seems to ask the right questions: Do you identify with these messages? Are these messages related to your own personal, social and cultural values? Similarly, chances for the community to participate in their own process of transformation and change were practically neglected. As some scholars brilliantly suggest, "Research emphasis on developing nations usually stressed how to communicate Western ideas and models *to* these countries, not how to communicate *with* them" (Mowlana & Wilson, 1990: 60).

With regard to modernization theory, most of the earlier studies reviewed here maintained the assumption that Western countries, but in particular the United States were the models to follow in order to achieve the stage of development. Authors such as Rogers (1965), Deutschmann (1963), McNelly (1966), and McNelly and Deutschmann (1963) have an underlying confidence that extrapolating the set of values of the *Protestant Ethic* to peasants would change their recalcitrant traditionalism to a modern perspective. Authors, such as McClelland, Hagen, Pye, Deutsch, Lerner, and Schramm, who subscribed to the Weber idea that the *Protestant Ethic* was responsible for the development of the spirit of capitalism and consequently of the economic growth, they were cited as a way to support such a notion. However, what remains clear is that it was an ethnocentric approach. The consensus in modern communication and development research is that people of each country should decide how they want to develop without looking for foreign models that are conceived in different social contexts.

With regard to the notion of the media's powerful effect, most of the earlier diffusion studies emphasized that media could be considered "magic multipliers" for achieving modernization in developing worlds. Mass media were considered as independent variables that could influence attitudes, knowledge and behavior

and *caused* social change. In studies such as those conducted by Deutschmann (1963), Rogers (1965), Spector (1963), McNelly (1966), Fagen (1964), and McNelly and Fonseca (1964) mass media “leads the peasant down the road of modernization” and creates a “favorable climate of modernization in Latin America.” Interestingly enough, the powerful media effect had been questioned in the American Academia in the 40’s. Perhaps Third World people were considered so naïve that such finding did not apply to them.

It is also noteworthy that, since the time of agriculture innovation in the 60’s and 70’s, diffusion of innovations has not been applied very often in Latin America. It is pretty unusual to see any article of diffusion research published in any Latin American communication journal. In fact, new generations of scholars and students of communication appear to ignore different applications of this theory. It seems that the early application of diffusion theory in that continent left a stigma that held new scholars away from this practical and popular theory. 

REFERENCES

- Arroyave, J. (2003 February). Diffusion of Innovations in Latin America: A Critical Review. Paper presented at the XX *Intercultural Communication Conference*, University of Miami, Coral Gable, FL.
- Atkin, D. & Jeffres, L. (1998). Understanding Internet adoption as telecommunications behaviors. *Journal of Broadcasting & Electronic Media*, 42 (4), 475-491.
- Babbie, E. (2001). *The practice of social research*, 9th ed. Belmont: Wadsworth.
- Baran, S. & Davis, D. (1995). *Mass communication theory: Foundations, ferment and future*. Wadsworth: Belmont, California.
- Beltran, L.R. (1974, September). "Communication Research in Latin America: The blindfolded inquiry". Paper presented to the meeting of the *International Scientific Conference on Mass Communication and Social Consciousness in a Changing World*. Leipzig, Germany.
- Beltran, L.R. (1975). Form of cultural dependency: Research ideologies in conflict. *Journal of Communication*, 25 (2), 8-15.
- Beltran, L.R. (1976). Alien premises, objects, and methods in Latin American communication research. *Communication Research*, 3 (2), 107-132.
- Catalan, C. & Sunkel, G. (1991). La tematización de las comunicaciones en América Latina. *Comunicaciones*, 74, 22-38.
- Crawford, C. & Strohkirsch, C (2000). Organizational innovations: Understanding of agents of technological influence. *Electronic Journal of Communication*, 10 (1, 2).
- Danko, W. & MacLachlan, J. (1983). Research to accelerate the diffusion of a new invention. *Journal of Advertising Research*, 23 (3), 39-43.
- Deutschmann, P. (1963) The mass media in an underdeveloped village. *Journalism Quarterly*, 40, 27-35.
- Deutschmann, P. & Mendez, A. (1962). *Adoption of new foods and drugs in Cholena: A Preliminary report*. Programa Interamericano de formación popular: Costa Rica.
- Deutschmann, P. & McNelly, J. (1964). Factor analysis of characteristics of Latin American countries. *American Behavioral Scientist*, VIII, 25-29.
- Diaz Bordenave, J. (1976). Communication of agricultural innovations in Latin America: The Need for New Model. *Communication Research*, 3 (2), 135-154.

- Dickerson, M.D. & Gentry, J. (1983). Characteristic of adopters and non-adopters of home computers. *Journals of Consumer Research*, 10, 225-234.
- Deutschmann, P., McNelly, J. & Ellingsworth, H. (1961). Mass media use by sub-elites in 11 Latin American countries. *Journalism Quarterly*, XXXVIII, 460-472.
- Dupagne, M. & Seel, P. (1998). *High-definition television: A global perspective*. Ames, IA: Iowa State University Press.
- Dutton, W.H., Rogers, E. M. & Jun, S. H. (1987a). *The diffusion and impacts of information technology in households*. Oxford surveys in information technology (Vol. 4, 133-193). New York: Oxford University Press.
- Dutton, W., Rogers, E. & Jun, U.H. (1987b). Diffusion and social impacts of personal computers. *Communication Research*, 14, 219-250.
- Dupagne, M. (1999). Exploring the characteristic of potential High-Definition Television Adopters. *Journal of Media Economics*, 12(1), 35-50.
- Fagen, R. (1964). Relations of communication growth to national political system I less developed countries. *Journalism Quarterly*, XLI, 87-94.
- Frey, L., Botan, C. & Kreps, G.(2000). *Investigating communication: An introduction to research methods*, 2nd ed. Needham Height.
- Grunig J. (1970) Communication and the economic decision-making processes of Colombian Peasants. *Economic Development and Cultural Change*, 34, 67-79.
- Garrison, B. (2001). The role of computer in news-gathering. *Newspaper Research Journal*.
- Garrison, B. (2001). Diffusion of online information technologies in newspaper newsrooms. *Journalism and New Technologies*, 2 (2), 2 21-239.
- Havens, A. (1972). Methodological issues in the study of development. *Sociologia Ruralis*, 12, 252-272.
- Heikinnen, K. & Reese, S.D. (1986). Newspaper readers and a new information medium. *Communication Research*, 13, 19-36.
- Hulme, D. & Turner, M.M.(1990). *Sociology and development: Theories, policies and practices*. New York: St. Martin Press.
- James, M.L., Wotring, C.E. & Forrest, E.J. (1995). An exploratory study of the perceived benefits of electronic bulletin board use and their impact on other communication activities. *Journal of Broadcasting & Electronic Media*, 39, 30-50.
- Kuhn, T. (1970). *The structure of scientific revolutions*. Chicago: University of Chicago Press.

- LaRose, R. & Atkin, D. (1992). Audiotext and the re-invention of the telephone as a mass medium. *Journalism Quarterly*, 69, 413-421.
- Lazarsfeld, P., Berelson, H. & Gaudet, H. (1948). *The people's choice*. New York: Columbia University Press.
- Lin, C.A. (1994). Exploring potential factors for home videotext adoption. In J. Hanson (Ed.), *Advances in Telematics*, 2, 111-121. New York: Ablex.
- Lin, C.A. (1998). Exploring the personal computer adoption dynamics. *Journal of Broadcasting & Electronic Media*, 41 (1), 95-112.
- Lin, C.A. & Atkin, D.J. (1998). *Communication technology and society: Audience adoption and uses of the new media*. Cresskill, N.J.: Hampton.
- Lin, C. (1994) Exploring potential factors for home videotext adoption. *Advances in Telematics*, 2, 111-121.
- Linc, C. (1997, August). *Exploring potential predictors of personal computer adoption*. Paper presented at the annual meeting of the Association for Education in Journalism and Mass Communication. Chicago.
- Lerner, D. (1958). *The passing of Traditional Society: Modernizing the Middle East*. New York: Free Press.
- Lowery, S. & DeFleur, M. (1995). *Milestone in Mass Communication Research*, 3rd ed. Longman: New York.
- Maier, S. (2000). Digital diffusion in newsrooms. The uneven advance of computer-assisted reporting. *Newspaper Research Journal*, 21 (2), 95-110.
- Mahler A. & Rogers, E. (1999). The diffusion of interactive communication innovations and the critical mass: The adoption of telecommunications services by German banks. *Telecommunications Policy*, 23 (10-11), 719-740.
- Markus, M. (1987). Toward a "critical mass" theory of interactive media: Universal access, interdependence, and diffusion. *Communication Research*, 14 (5), 491- 511.
- Matterlard, A & Matterlard, M. (1997) *Historia de las teorías de la comunicación*. Barcelona: Paidós.
- Matterlard, A. (2002). *Historia de la sociedad de la información*. Barcelona: Paidós.
- Melkote, S. & Rao, S. (2001). *Critical issues in communication: Looking inward for answers*. London: Sage.
- Melkote, S. & Steeves, H.. (2001). *Communication for development in the Third World: Theory and Practice for empowerment*. London: Sage.
- McNelly, J. (1966). Mass communication and the climate for modernization in Latin America. *Journal of Inter-American studies*, 8 (3), 345-357.

- McNelly, J. & Fonseca, E. (1964). Media use and political interest at the university of Costa Rica. *Journalism Quarterly*, *XLI*, 225-331.
- McNelly, J. & Deutschmann, P (1963). Media use and socioeconomic status in a Latin American capitals. *Gazette*, *IX*, 1-15.
- McQuail, D. & Windahl, S. (1981). *Commutations Models*. New York: Longman.
- Mowlana, H. & Wilson, L. (1990). *The passing of Modernity: Communication and the transformation of society*. Longman: New York.
- Neundork, K., Atkin, D. & Jefres, L. (1998). Understanding adopters of audio information innovations. *Journal of Broadcasting and Electronic Media*, *42* (1), 80-112.
- Niebauer W., Abbott, L., Corbin, L. & Neibergall, J. (2000). Computer adoption levels of Iowa dailies and weeklies. *Newspaper Research Journal*, *21* (2), 82-94.
- Pereira, J., Bonilla, J. & Benavides, J. (1998). La comunicación en contextos de desarrollo: Balances y perspectivas. *Signo y Pensamiento*, *32*, 119-138.
- Reagan, J. (1987). Classifying adopters and non-adopters of four technologies using political activity, media use and demographic variables. *Telematics and Informatics*, *4*, 3-16.
- Rice, R. (1993). Media appropriateness: Using social presence theory to compare traditional and new organizational media. *Human Communication Research*, *19*, 451-484.
- Rice, R. & Webster, J. (1998). Organizational communication: Lunch at the Intranet cafe. In C.A. Lin & D.J. Atkin (Eds.). *Communication technology and society: Audience-adoption and uses of the new media*. Cresskill, N.J.: Hampton.
- Rogers, E. (1962). *Diffusion of innovations*. New York: The Free Press.
- Rogers, E. (1983). *Diffusion of innovations*, 3rd ed. New York: McMillan.
- Rogers, E. (1965). Mass media exposure and modernization among Colombian Peasant. *Public Opinion Quarterly*, *XXIX* (4), 614-625.
- Rogers, E. & Adhikarya, R. (1979). Diffusion of innovations: an up-to-date review and commentary. *Communication Yearbook*, *3*, 67-80.
- Rogers, E. & Singhal, A. (1996). Diffusion of innovations. in Michael Salwen and Don Stack (Eds.), *An integrated approach to communication theory* (pp. 409-420). Mahwan, New Jersey: Lawrence Erlbaum Associates.
- Roger, E. (1983). *Diffusion of innovations*, 3rd ed. New York: Free Press.
- Rostow, W.(1960). *The Stages of Economic Growth: A Non-Communist Manifesto*. Cambridge, UK: University Press.

- Spector P. (1963). *Communication and motivation in community development: An experiment*. Washington: Institute for International Services.
- Schenkel, P. (1981). *Políticas nacionales de comunicacion*. Quito: Paper.
- Schmucler, H. (1989). *De la revolución verde a la revolución informática*. Santiago de Chile: La prensa.
- Schramm, W. (1964). *Mass media and national development*. Stanford, California: Stanford University Press.
- Sunkel, O. (1970). *El subdesarrollo latinoamericano y la teoría del desarrollo*. México: Editores Siglo XXI.
- Valente, T. (1993). Diffusion of innovations and policy decision-making. *Journal of Communication*, 43 (1), 30-45.
- Vargas, V. (2004). Tipologías de Comunicación para el desarrollo. *Aguro Negro*, 22, 21-35.
- Waisbord, S. (2001, November). Family tree of theories, methodologies and strategies in development communication: Convergences and differences. Retrieved on November 11, 2002, from <http://www.comminiy.com/stsilviocomm/sld-2881.html>