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## Assessing the Media Habits and Needs of the Mobility-Disabled Consumer

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*With passage of the Americans with Disabilities Act, businesses became aware of the 43 million disabled consumers as a source of concern and additional expense, but not as a salient market segment. Advertisers have yet to recognize that by learning more about the communication needs of the disabled, they can devise strategies to reach that large and generally ignored population of consumers. The authors report a study comparing mobility-disabled with nondisabled consumers in terms of media usage, attitudes toward advertising, and media needs. The results show several significant differences between the two groups. Implications for advertising practitioners are discussed.*

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The Americans with Disabilities Act (ADA) gives civil rights protection to individuals with disabilities, prohibiting discrimination against them just as previous legislation prohibited discrimination based on race, sex, national origin, and religion. Although the act made businesses aware that an estimated 43 million persons fit the category "Americans with disabilities," the vast majority of businesses view disabled consumers as a source of concern and expense rather than a promising market segment that warrants strategic consideration (Reedy 1993).

The current situation is cogently expressed by Tari Hartman, a principal at EIN SOF Communications (Grimm 1990, p. 24): "Advertisers don't see disabled people as consumers, and therefore disabled people never had the chance to be consumers. Marketers have ignored them." This situation is no longer acceptable. For the intelligent marketer, pursuing the disabled consumer is a win-win proposition, enabling the company not only to meet important social responsibilities, but also to find new customer groups to target as potential buyers at a time when the nation's population growth is slowing. To realize that potential, however, marketers need a better understanding of disabled consumers. We therefore conducted a study to examine the media habits, attitudes toward advertising, and media needs of the disabled.

After providing an overview of both the ADA and the general characteristics of disabled consumers, we discuss the theoretical foundation of our study. We then describe the study method and report the results. The study's limitations are noted and issues for future research are suggested. Finally, we examine the implications of the findings for advertising practitioners.

### Background

To appeal effectively to populations with disabilities, marketing and advertising managers must become adept at "disabilities communications." They need to select media vehicles that can deliver messages to consumers with diverse disabilities, enhance disabled consumers' ability to shop or buy, and acknowledge that individuals who have disabilities use information differently than those who do not. The more knowledgeable the advertising

manager is of the ADA and its implications, the better the potential for success. However, basic knowledge of the disabled consumer is also a necessary prerequisite.

### *The Americans with Disabilities Act*

The primary initiative for the passage of ADA was the fact that the Civil Rights Act of 1964 did not cover persons with disabilities. Essentially the ADA gives disabled individuals civil rights protection similar to that prohibiting discrimination on the basis of race, sex, national origin, or religion. Title III is of particular interest to marketing in that it mandates equality of customer or prospect access to the private (as opposed to government) services entity.

People who are considered disabled under the act are those with physical or mental impairments that substantially limit one or more of the major activities of life, such as walking, talking, caring for oneself, or working. The term also applies to people with a record of an impairment, such as someone recovering from cancer or with a history of lower back problems, as well as people who are "regarded" as having a disability, such as a person with a disfiguring scar, even though they have no physical limitations. Many short-term physical conditions, such as a broken arm or leg, are not considered disabilities.

### *Understanding the Disabled Consumer*

Seeking better understanding of the disabled consumer is a recent phenomenon. Some of the impetus has been provided by certain companies that recognize the market potential of disabled consumers. Marketers such as Levi Straus, DuPont, IBM, Budweiser, and McDonald's have all developed services, products, and messages targeted to the disabled. Moreover, technologies have made the disabled more accessible. For example, adaptations of keyboards now offer voice or optical character recognition, and "eye blink," "sip and puff," and other innovative input methods enable mobility- or sight-impaired users to "link to the loop." Computerized output devices can read printed materials aloud, voice-recognition work stations enable blind persons to access databanks, and computerized electronic matrices attached to video cameras translate eye movements into speech.

People in general have become more accepting of disabled individuals primarily through increased familiarity as the number of people with disabilities has grown. For example, baby boomers are aging and becoming increasingly susceptible to physical impair-

ment. In addition, medical technology has made profound advancements in saving lives, particularly of persons with spinal cord injuries who subsequently are permanently disabled. Disabled people are becoming more numerous in the workforce because jobs today require brainpower, rather than physical dexterity or sensory acuity. Consequently, more disabled people are seeking higher education (Taylor 1994). A final reason for the greater acceptance of the disabled is the improved portrayal of disabled individuals in the media. Television programs, advertisements, movies, and news programs no longer stigmatize the disabled. Current portrayals convey inspiration, not limitation. Still, our tolerance of the severely disabled remains superficial. In a study by Elliot and Byrd (1992), two-thirds of the nondisabled citizens surveyed indicated a strong feeling that the disabled are regarded as objects of pity and care.

In 1994 the National Organization on Disability (NOD) commissioned Louis Harris and Associates to conduct the NOD Survey of Americans with Disabilities. This extensive study (a replication of a 1986 study) provided measures of the quality of life, employment and social opportunities, financial status, and lifestyles of adults with disabilities and how they have changed. A sampling of the more important findings (Leitman, Cooner, and Risker 1994) follows.

1. Two-thirds of Americans with disabilities between the ages of 16 and 64 are not working. This proportion shows no improvement since 1986.
2. Six in 10 adults with disabilities but fewer than four in 10 nondisabled adults live in households with earnings of \$25,000 or less.
3. Half of adults with disabilities say they are so limited by their disability that they are completely unable to work, go to school, or take care of their home.
4. The population of adults with disabilities is more likely than nondisabled adults to be elderly (37% vs. 13% are 65 years of age or older) and female (55% vs. 51%).
5. Most adults with disabilities (58%) need another person to assist them with work, school, housework, or other activities, including only 26% of those with slight disabilities and 77% of those with very severe disabilities.

Few of these findings describe the disabled consumer in a way that is useful to marketers or advertisers. Unfortunately, academic research is not helpful either. To date, only two articles pertaining to the disabled consumer have appeared in the marketing

literature. One provides an overview of the ADA, implications for marketing, and five general guidelines (see Stephens and Bergman 1995). The authors point to the salience of the disabled as consumers, as well as the need to treat the disabled as valued customers. The second article (see Vezina, Astous, and Deschamps 1995) reports on depth interviews of four blind consumers. The results are anecdotal and provide few insights to aid our understanding of the disabled. Given the paucity of information on the disabled as consumers, how can such information be gathered in a valid and systematic manner that also proves useful to strategic planners?

Marketers need to identify segments of people with similar disabilities, and then find common interest levels, choices, and behaviors among like-minded disabled consumers. Admittedly, this process will require more understanding and will take longer than equivalent efforts with the nondisabled but will be a worthwhile endeavor.

### *Segmenting the Disabled*

The severity of disabilities as well as their implications for behavior are diverse. Historically, individuals with disabilities have been categorized by either their medical condition(s) or their level of self-sufficiency. The former approach is very technical and involves an enormous variety of possibilities. The latter is commonly used in the fields of sociology, anthropology, and gerontology and is typically based on the individual's ability to perform "activities of daily living" (ADL). Severe, moderate, and minor are common disability classifications. Reedy (1993) posits that a new taxonomy of physiographic segmentation, which classifies prospects, customers, or account holders by four physical or sensory-limiting impairments, is most appropriate:

- *Mobility impairments*, limitations to movement ranging from restriction of upper body motions such as reaching, typing, or grasping to restriction of lower body motions such as walking or climbing.
- *Hearing impairments*, ranging from diminished hearing ability to total deafness.
- *Sight impairments*, ranging from severe sight limitations such as retinitis pigmentosa to total blindness.
- *Speech impairments*, limitations of intelligible speech resulting from many causes, such as congenital deafness, childhood illness, or psychologically induced stuttering.

Although these four segmentation classifications are a useful starting point, further refinement is necessary. If we consider the traditional criteria applied to market segment formation, we can find many bases for grouping disabled consumers into reliable segments. For example, mobility impairments range from moderate to extreme and affect different parts of the body, and sensory impairments commonly involve combinations of multiple conditions such as diabetes and sight impairment. A marketer might promote an electric clock with easy-to-set alarm buttons to the segment with moderately to severe upper-body mobility impairment. For a different product, the marketer may target the segment with lower-body impairment. That approach may sound complicated, but the problems of segmenting the disabled are similar to those associated with segmenting the nondisabled consumers by demographic or psychographic traits.

### *Theoretical Foundation*

Given the paucity of reported empirical research on the disabled consumer, we needed a theoretical foundation that could provide direction in developing testable propositions. We chose the literature and related theories associated with the elderly, primarily because of the joint membership of the two groups. The elderly have the largest percentage of any disabled age group. In fact, of persons 55 to 64 years of age, 34% have functional limitations and 12% have severe limitations; the proportions are 50% and 21% for persons 65 to 74 years of age and increase to 74% and 41% for persons 75 years of age and older (Atchly 1987; Reedy 1993).

Two related theories that have been applied to the elderly appear to be applicable to the disabled: socialization/resocialization theory and alienation theory. Socialization is the process by which individuals acquire knowledge, skills, and dispositions that enable them to participate as more or less effective members of groups and society. Examples include learning to not hit, being patient, and not speaking out loud. Traditionally the theory was used to understand how infants progress to young adulthood, but individuals now are assumed to engage in socialization throughout their lives. Resocialization occurs in response to changes in status caused by entrance into different stages of the life cycle, or by different institutions. As less than 10% of currently disabled people were born with their disability, resocialization would be necessary in response to changes resulting from the disability (Kraus and Stoddard 1989). To date, the geri-

atric literature has examined retirement and death of a spouse as events requiring a resocialization process and explains why some individuals adapt well and others do not. The basic paradigm is that adaptation (response, coping, adjustment) to a given event is determined by three factors: (1) the specific stimulus event, (2) the broad social context of the event, and (3) an individual's personal characteristics (such as values, skills, motives). As specific stimulus events, retirement and becoming disabled rank as two of the most disruptive life events and both require major adaptation skills. Continuity theory, which is viewed as the best framework for analyzing retirement adaptation, proposes that the more disruptive the life event (1) the more difficult adaptation will be and (2) the longer the person will take to adapt successfully.

In terms of the broad social context, when a person retires (or becomes disabled) society establishes a set of parameters that dictate his or her role in society. Educational, religious, and other institutions transmit the cultural meanings of the rites of passage. One likely consequence is that the retired and/or disabled person is disenfranchised. That process and its consequences are explained through alienation theory. Alienated people find themselves living in a society that has already determined who they are (e.g., black, woman, retired, divorced, disabled) and what they are (e.g., lacking enterprise or intelligence, lacking rationality, being generally useless). Alienation theory holds that individuals who are alienated tend to feel powerless (can do little to help oneself), meaningless (overcome by the complexity of society), and socially isolated (restricted to a very small social sphere) (Middleton 1963). Unfortunately, over time the alienated often accept their assigned role and cooperate willingly (Schmitt and Moody 1994). LaForge (1989) used alienation theory to explain why the elderly do not complain. Alienation theory also posits that the alienated use mass media to verify their position in society, but use personal information sources to make decisions (Schmitt and Moody 1994). Anger and skepticism are also characteristics of the alienated, suggesting that mass advertising would be viewed negatively, especially if the stereotypic portrayal of the alienated person is reinforced (Schmitt and Moody 1994).

Finally, a variety of individual characteristics affect how well an individual adapts to a life event such as retirement or becoming disabled. Examples include whether he or she has achieved important life goals; the resources of the individual, including financial resources, interpersonal resources, and health

status; and personal morale/outlook (Cutler 1973; DeCarlo 1973; Draper 1967; Kimmel, Price and Walker 1978). Researchers have not examined the relative importance of these personal factors or how they interact.

In sum, individuals who become disabled need to go through a resocialization process to adapt to that life crisis event. Depending on the severity of the disability, personal traits, and the extent of support, an individual may become alienated. The result would be skepticism of mass media, including advertising, and a reliance on personal sources of information. However, relevant messages, in contrast to image advertising, could appeal to the alienated by reducing hopelessness and meaninglessness.

A review of geriatric literature pertaining to advertising and media usage provides support for those conclusions as well as additional insights. For example, elderly consumers may spend more of their leisure time in media consumption activities than younger persons. However, results suggest that the elderly prefer media that provide information over entertainment (Phillips and Sternthal, 1977). In terms of specific media, Shiffman (1971) found that the elderly rank newspapers as the most important medium whereas younger persons rank television as most important. Although Bernhardt and Kinnear (1976) found the elderly to be heavy TV viewers, Schreiber and Boyd (1980) noted that their viewing times tended to be concentrated during the daytime and during the 6 pm news.

The elderly are light users of magazines, news weeklies, and FM radio and are heavy users of AM daytime radio (Phillips and Sternthal 1977; Schreiber and Boyd 1980; Shiffman 1971). In response, magazines such as *50 Plus*, *Modern Marketing*, *Renaissance*, and *Lear's* are all targeted at the elderly. Likewise, radio stations are appealing to the elderly by changing their formats to all news, all talk, or "beautiful" music.

Only a limited amount of research has examined how the elderly use advertising in decision making and their attitude toward advertising. In general, the findings show that the elderly use personal sources rather than advertising in collecting information and making decisions (Burnett and Wilkes 1990; Klipple and Sweeney 1974) and that the elderly hold a somewhat negative attitude toward advertising (Burnett and Wilkes 1990). As George Moschis, director of Georgia State University's Center for Mature Consumer Studies cogently summarized, "A lot of business decisions are based on misconceptions about the older consumer. When you have ad directors in their 30s,

it's hard for them to create ads for people in their 60s and 70s" (Crispell 1993, p. 21).

Finally, Moschis, Mathur, and Smith (1993) examined the role of media in the elderly's acceptance of age-targeted marketing stimuli. Their model, based on the socialization perspective, assumed that the more frequent the exposure to mass media and personal sources, the greater the likelihood of awareness and, hence acceptance of age-targeted stimuli. They examined the influence of four antecedent variables (age, retirement status, education, and family support) on the elderly's interaction with personal information sources and mass media and how that interaction affects age-based marketing stimuli. The findings indicate that education is related positively to interaction with mass media and that the influence of mass media interactions on the elderly's orientation toward age-based marketing stimuli is negative. In a related study, Moschis (1994) hypothesized that mass media are important in socializing aging individuals into the roles of retiree, empty nester, and grandparent.

In summary, findings from the geriatric literature suggest that the following media/advertising-related research propositions be examined for the disabled:

- 1) The disabled hold a negative attitude toward advertising.
- 2) The disabled tend to use personal information sources more than mass media sources when making consumer decisions.
- 3) The disabled prefer mass media targeted to them, over media directed at the general public.
- 4) The disabled prefer print media to broadcast media.
- 5) The disabled prefer media that provide relevant content.

## Method

To address the propositions, we designed a study to survey a representative sample of mobility-disabled consumers. In addition, as other disabled groups were not considered, we used a comparable sample of nondisabled consumers for comparison. Questions pertained to the media usage of the two groups, as well as their attitudes and beliefs about advertising and its salience in decision making.

## Sampling Procedure

Because of the difficulties associated with survey-

ing certain disabled groups, we decided to focus on only one of the four segments discussed previously, the mobility-disabled. Mailing list houses are unable to provide adequate lists of the disabled, but we were able to obtain a sufficient number of subjects by contacting several agencies and organizations. Ultimately, we acquired names and addresses of 525 individuals identified as having some type of mobility disability.

For comparison, we drew an additional 500 names randomly from the consumer panel maintained by Market Facts which purportedly represents a balance in accordance with the U.S. Census and is fairly representative of "Middle America" (see Table 1).

Because of possible confounding by other explanatory variables, we decided to include and control for two demographic variables, age and income. Both have proven to be salient covariates in the study of the elderly (Burnett 1991) and appear to be relevant to the disabled as well.

The mobility-disabled group provided 298 usable questionnaires (a response rate of 56%). The nondisabled sample provided 371 usable questionnaires (a response rate of 74%). A \$25 donation to each of the cooperating agencies was offered as an incentive for compliance.

## The Instrument

The disabled and nondisabled groups received different versions of the questionnaire, although there was some overlap. Sections 1 and 2 were identical in the two versions. Section 1 pertained to media usage. Specifically, several items measured radio and TV exposure (based on average hours per day), newspaper reading habits (reading of certain sections in the last two weeks), magazine reading habits (reading of certain magazines during the last month), and usage of direct media such as catalogs, shopping channels, and direct mail or TV ads (frequency during the last 12 months). An example is, "How often have you read *Newsweek* during the last month?" Section 2 of the questionnaire contained 10 lifestyle items measured on a 6-point Likert scale addressing attitude toward advertising. All of the items (other than the direct media items) have been used by Market Facts for the last 20 years. An example is, "Ads insult my intelligence." The third section of the questionnaire requested demographic information, including age, income, gender, occupation, and marital status. The disabled group's version also included five questions delineating physical limitations. These questions were suggested by Reedy (1993). The final section of the

Table 1  
Comparison of Study Sample Groups on Key Demographic Variables

Variable	General (Sample) (%)	Disabled (Sample) (%)	Disabled (NOD) (%)
Gender:			
Male	44.6	48.7	47.2
Female	55.4	41.3	42.8
Age (years)			
18-24	21.3	12.6	13.7
25-34	18.7	20.2	21.0
35-54	33.1	29.4	25.9
55+	26.9	37.8	39.4
Marital Status			
Married	71.7	54.5	53.2
Single	28.3	45.5	46.8
Occupation			
Agriculture	3.0	0.3	0.9
Blue Collar	31.5	39.2	35.0
White Collar	36.7	24.1	34.9
Professional	21.3	9.4	17.8
Unemployed	4.6	13.9	6.8
Income Before Taxes	\$19,245	\$11,513	\$11,846

questionnaire, sent to the disabled group only, contained four questions about media needs presumed to be unique to that group: What media do you find easiest to use? What media do you use to learn about new products or services? What source of ongoing product or service communications causes you the most inconvenience? Is direct marketing communication or mass marketing communication more useful?

## Results

### Demographic Comparison

Table 1 reports the demographic results for the nondisabled (general), mobility-disabled, and NOD groups. As expected, chi-square tests indicate a significant difference between the nondisabled and disabled groups across the demographic characteristics (with the exception of gender), but not between the

disabled group and the NOD group. These findings are consistent with those of the NOD survey.

### Media Usage

Table 2 reports results of the chi-square analysis for the total sample, comparing media usage by the mobility-disabled group with that by the nondisabled group. Results of chi-square analyses with control for age and income also are given. Those possible moderator variables identified in the geriatric literature appear to be relevant in our study as well. The assumption is that the results should remain the same if age and income are not moderating disability status and media usage.

*Newspaper.* As expected, the disabled had very different newspaper readership behaviors than their nondisabled counterparts (see Table 2). Specifically, the nondisabled were more likely to read the sports

**Table 2**  
**Comparison of Media Usage by Mobility-Disabled and Nondisabled Respondents**  
 (control for Age and Income)

Type of Medium Used	Total Sample $\chi^2$	<Age 55 $\chi^2$	>Age 55 $\chi^2$	<Income \$35,00 $\chi^2$	>Income \$35,00 $\chi^2$
<b>Newspaper</b>					
News section	1.7	0.8	1.2	2.4	3.7
Sports section	7.9 <sup>a</sup>	6.7 <sup>a</sup>	7.0 <sup>a</sup>	6.5 <sup>a</sup>	6.9 <sup>a</sup>
Business Section	8.3 <sup>a</sup>	7.2 <sup>a</sup>	6.6 <sup>a</sup>	8.4 <sup>a</sup>	7.1 <sup>a</sup>
Food Section	16.4 <sup>c</sup>	10.5 <sup>b</sup>	9.6 <sup>b</sup>	14.3 <sup>c</sup>	13.9 <sup>c</sup>
Lifestyle section	14.2 <sup>c</sup>	18.9 <sup>c</sup>	15.2 <sup>c</sup>	9.5 <sup>b</sup>	16.0 <sup>c</sup>
Travel section	19.0 <sup>c</sup>	15.5 <sup>c</sup>	13.1 <sup>b</sup>	10.9 <sup>b</sup>	17.7 <sup>c</sup>
Magazine section	3.3	1.2	4.6	6.5 <sup>a</sup>	3.4
Advertising supplement	9.0 <sup>a</sup>	8.2 <sup>a</sup>	7.0 <sup>a</sup>	13.7 <sup>c</sup>	9.3 <sup>a</sup>
<i>USA Today</i>	13.3 <sup>b</sup>	12.9 <sup>b</sup>	10.6 <sup>b</sup>	9.5 <sup>b</sup>	11.4 <sup>b</sup>
<i>Wall Street Today</i>	17.1 <sup>c</sup>	7.8 <sup>a</sup>	16.5 <sup>c</sup>	17.6 <sup>c</sup>	21.7 <sup>c</sup>
Local newspaper	4.3	5.0	4.1	3.2	3.9
<i>National Enquirer/Star</i>	8.5 <sup>a</sup>	7.1 <sup>a</sup>	8.9 <sup>a</sup>	18.6 <sup>c</sup>	9.9 <sup>b</sup>
<b>Magazines</b>					
<i>Business Week</i>	13.2 <sup>c</sup>	15.4 <sup>c</sup>	26.9 <sup>c</sup>	14.3 <sup>c</sup>	36.9 <sup>c</sup>
<i>Newsweek</i>	11.3 <sup>c</sup>	10.3 <sup>b</sup>	14.4 <sup>c</sup>	17.9 <sup>c</sup>	19.0 <sup>c</sup>
<i>New Yorker</i>	20.4 <sup>c</sup>	32.4 <sup>c</sup>	19.6 <sup>c</sup>	18.5 <sup>c</sup>	24.3 <sup>c</sup>
<i>People</i>	0.7	1.2	2.9	3.6	4.2
<i>Sports Illustrated</i>	9.4 <sup>b</sup>	7.4 <sup>a</sup>	13.7 <sup>c</sup>	10.6 <sup>b</sup>	11.2 <sup>b</sup>
<i>Time</i>	10.6 <sup>c</sup>	14.6 <sup>c</sup>	10.5 <sup>b</sup>	19.8 <sup>c</sup>	14.7 <sup>c</sup>
<i>TV Guide</i>	4.2	5.6	6.1	4.2	1.3
<i>Family Circle</i>	3.5	4.9	2.6	5.7	4.0
<i>Field &amp; Stream</i>	14.8 <sup>c</sup>	17.9 <sup>c</sup>	10.3 <sup>b</sup>	19.4 <sup>c</sup>	11.6 <sup>b</sup>
<i>Fortune</i>	10.9 <sup>c</sup>	6.8 <sup>a</sup>	9.2 <sup>a</sup>	12.4 <sup>a</sup>	18.4 <sup>a</sup>
<i>Modern Maturity</i>	5.1	2.7	8.4 <sup>a</sup>	3.3	4.6
<i>Money</i>	9.9 <sup>b</sup>	10.2 <sup>b</sup>	14.1 <sup>c</sup>	3.8	11.9 <sup>b</sup>
<i>National Geographic</i>	11.5 <sup>b</sup>	19.9 <sup>c</sup>	26.4 <sup>c</sup>	8.5 <sup>a</sup>	13.8 <sup>c</sup>
<i>Reader's Digest</i>	1.4	2.8	0.7	1.5	3.6
<b>Television</b>					
Evening network news	2.3	1.7	2.4	1.1	5.9
Local news	1.4	2.6	1.4	1.8	0.6
Morning network news	5.6	6.2	1.8	3.0	5.5
Prime-time movies	7.1 <sup>a</sup>	8.9 <sup>a</sup>	10.3 <sup>b</sup>	7.2 <sup>a</sup>	5.9
Monday night football	2.4	2.9	3.3	6.3 <sup>a</sup>	5.3
<i>Murder She Wrote</i>	10.6 <sup>b</sup>	6.4 <sup>a</sup>	6.9 <sup>a</sup>	7.8 <sup>a</sup>	13.8 <sup>c</sup>
<i>Home Improvement</i>	8.8 <sup>a</sup>	9.4 <sup>a</sup>	13.7 <sup>c</sup>	10.4 <sup>b</sup>	9.6 <sup>b</sup>
Nighttime sports	1.9	6.0	4.4	1.8	2.9
<i>The David Letterman Show</i>	3.7	1.6	0.9	3.2	4.6
PBS	15.3 <sup>c</sup>	17.8 <sup>c</sup>	26.2 <sup>c</sup>	19.8 <sup>c</sup>	12.5 <sup>b</sup>
Late night movies	17.4 <sup>c</sup>	23.2 <sup>c</sup>	8.9 <sup>a</sup>	10.2 <sup>b</sup>	15.0 <sup>c</sup>
Game shows	9.9 <sup>b</sup>	8.9 <sup>a</sup>	6.3 <sup>a</sup>	10.7 <sup>b</sup>	6.8 <sup>a</sup>
Soap operas	6.3 <sup>a</sup>	6.0	7.8 <sup>a</sup>	14.2 <sup>c</sup>	8.3 <sup>a</sup>

continued . . .

	Talk shows	11.4 <sup>c</sup>	12.9 <sup>b</sup>	11.0 <sup>b</sup>	9.3 <sup>a</sup>	9.0 <sup>a</sup>
	CNN	8.9 <sup>a</sup>	9.0 <sup>a</sup>	10.6 <sup>b</sup>	7.7 <sup>a</sup>	6.8 <sup>a</sup>
	Premium pay cable	19.3 <sup>c</sup>	20.2 <sup>c</sup>	14.7 <sup>c</sup>	6.8 <sup>a</sup>	10.7 <sup>b</sup>
	<i>Seinfeld</i>	13.5 <sup>c</sup>	14.5 <sup>c</sup>	11.1 <sup>b</sup>	16.2 <sup>c</sup>	20.5 <sup>c</sup>
	<i>60 Minutes</i>	16.1 <sup>c</sup>	10.8 <sup>b</sup>	7.2 <sup>a</sup>	7.9 <sup>a</sup>	16.3 <sup>c</sup>
	<i>Nick-at-Nite</i>	17.7 <sup>c</sup>	10.6 <sup>b</sup>	11.9 <sup>b</sup>	9.8 <sup>b</sup>	11.2 <sup>c</sup>
	<i>The Nanny</i>	2.8	6.0	4.8	4.1	3.7
	<i>Fresh Prince of BelAir</i>	3.0	3.8	4.6	4.9	2.5
	<i>Murphy Brown</i>	9.7 <sup>b</sup>	6.7 <sup>a</sup>	6.9 <sup>a</sup>	9.6 <sup>b</sup>	10.8 <sup>b</sup>
	<i>NYPD Blue</i>	2.9	1.3	2.6	1.5	1.8
	<i>Roseanne</i>	7.4 <sup>a</sup>	6.8 <sup>a</sup>	9.2 <sup>a</sup>	11.6 <sup>b</sup>	16.4 <sup>c</sup>
Radio	All talk	21.4 <sup>c</sup>	6.9 <sup>a</sup>	26.4 <sup>c</sup>	11.8 <sup>b</sup>	20.3 <sup>c</sup>
	National Public Radio	10.2 <sup>b</sup>	11.8 <sup>b</sup>	9.6 <sup>b</sup>	17.4 <sup>c</sup>	10.6 <sup>b</sup>
	Classical music	14.9 <sup>c</sup>	9.5 <sup>b</sup>	13.2 <sup>b</sup>	16.8 <sup>c</sup>	7.8 <sup>a</sup>
	Country & Western music	9.5 <sup>b</sup>	13.6 <sup>c</sup>	10.8 <sup>b</sup>	7.8 <sup>a</sup>	6.6 <sup>a</sup>
	Easy listening music	2.0	1.8	0.3	2.6	1.4
	Jazz	1.2	1.0	3.8	4.2	1.7
	Religious/gospel music <sup>a</sup>	6.6 <sup>a</sup>	6.6 <sup>a</sup>	7.3 <sup>a</sup>	10.2 <sup>b</sup>	7.1 <sup>a</sup>
	Classic rock music	2.9	1.6	1.2	3.2	4.9
	Hard rock music	2.3	2.5	1.3	5.9	6.0
	Sports	5.8	6.3 <sup>a</sup>	5.2	3.9	3.4
Direct marketing	Catalogs	33.8 <sup>c</sup>	29.5 <sup>c</sup>	19.2 <sup>c</sup>	10.5 <sup>b</sup>	21.6 <sup>c</sup>
	Home shopping	25.2 <sup>c</sup>	17.2 <sup>c</sup>	13.5 <sup>c</sup>	9.2 <sup>a</sup>	13.8 <sup>c</sup>
	800 numbers	11.4 <sup>b</sup>	10.9 <sup>b</sup>	17.3 <sup>c</sup>	6.8 <sup>a</sup>	11.4 <sup>b</sup>
	Telemarketing	4.8	5.6	6.6 <sup>a</sup>	3.7	4.0
	Direct mail	9.3 <sup>a</sup>	6.8 <sup>a</sup>	18.0 <sup>c</sup>	11.6 <sup>b</sup>	21.6 <sup>c</sup>

d.f. = 2 for newspaper and magazines, d.f. = 3 for TV, radio, and direct marketing.

<sup>a</sup>p < .05

<sup>b</sup>p < .01.

<sup>c</sup>p < .001.

section ( $\chi^2 = 7.9$ ,  $p \leq .05$ ), the business section ( $\chi^2 = 8.3$ ,  $p \leq .05$ ), the food section ( $\chi^2 = 16.4$ ,  $p \leq .001$ ), the lifestyle section ( $\chi^2 = 14.2$ ,  $p \leq .001$ ), the travel section ( $\chi^2 = 19.0$ ,  $p \leq .001$ ), *USA Today* ( $\chi^2 = 13.3$ ,  $p \leq .01$ ), and the *Wall Street Journal* ( $\chi^2 = 17.1$ ,  $p \leq .001$ ). The mobility-disabled were more likely to read the advertising supplement ( $\chi^2 = 9.0$ ,  $p \leq .05$ ) and the *National Enquirer* and/or *Star* ( $\chi^2 = 8.5$ ,  $p \leq .05$ ). The two moderating variables are relevant only for the magazine section category, where "income less than \$35,000" is significant.

**Magazines.** The same types of differences are found for magazines. The nondisabled were more likely to read *Business Week* ( $\chi^2 = 13.2$ ,  $p \leq .001$ ), *Newsweek* ( $\chi^2 = 11.3$ ,  $p \leq .001$ ), *New Yorker* ( $\chi^2 = 20.4$ ,  $p \leq .001$ ), *Sports Illustrated* ( $\chi^2 = 9.4$ ,  $p \leq .01$ ), *Time* ( $\chi^2 = 10.6$ ,  $p \leq .001$ ), *Field & Stream* ( $\chi^2 = 4.8$ ,  $p \leq .001$ ), *Fortune* ( $\chi^2 = 10.9$ ,  $p \leq .001$ ), *Money* ( $\chi^2 = 9.9$ ,  $p \leq .01$ ), and *Na-*

*tional Geographic* ( $\chi^2 = 11.5$ ,  $p \leq .01$ ). The findings are consistent across age and income for all but *Modern Maturity* (age) and *Money* (income).

**Television.** Differences in television program preferences are mixed. Nondisabled respondents were more likely to watch *Home Improvement* ( $\chi^2 = 8.8$ ,  $p \leq .05$ ), PBS ( $\chi^2 = 15.3$ ,  $p \leq .001$ ), premium pay cable ( $\chi^2 = 19.3$ ,  $p \leq .001$ ), CNN ( $\chi^2 = 8.9$ ,  $p \leq .05$ ), *Seinfeld* ( $\chi^2 = 13.5$ ,  $p \leq .001$ ), *60 Minutes* ( $\chi^2 = 16.1$ ,  $p \leq .001$ ), and *Murphy Brown* ( $\chi^2 = 9.7$ ,  $p \leq .01$ ). Disabled respondents were more likely to watch prime-time movies ( $\chi^2 = 7.1$ ,  $p \leq .05$ ), *Murder She Wrote* ( $\chi^2 = 10.6$ ,  $p \leq .01$ ), late night movies ( $\chi^2 = 17.4$ ,  $p \leq .001$ ), game shows ( $\chi^2 = 9.9$ ,  $p \leq .01$ ), soap operas ( $\chi^2 = 6.3$ ,  $p \leq .05$ ), *Nick at Nite* ( $\chi^2 = 17.7$ ,  $p \leq .001$ ), and *Roseanne* ( $\chi^2 = 7.4$ ,  $p \leq .05$ ). When age and income are considered the results change for prime time movies and monday night movies (income).



Table 3  
Results of ANCOVA of Disability on Attitudes

Attitude Statements	F <sup>D</sup>	F <sup>d/A,I</sup>	F <sup>D/A</sup>	F <sup>D/I</sup>	D*A	D*I	A*I	R <sup>2</sup>	Overall F
Ads condescending to women	2.11	1.59	1.40	1.38	1.73	1.23	0.28	0.15	1.33
Ads insult my intelligence	6.31 <sup>a</sup>	2.67 <sup>c</sup>	2.98 <sup>c</sup>	3.42 <sup>c</sup>	0.16	1.03	1.43	0.21	4.51
Support educational TV	1.93	1.91	0.55	1.39	0.62	0.50	1.22	0.19	0.82
Ad information helps selection	2.73 <sup>c</sup>	3.42 <sup>c</sup>	2.56 <sup>c</sup>	2.77 <sup>c</sup>	1.94	1.35	1.19	0.27	2.91
Prefer magazine over TV	2.53 <sup>c</sup>	2.96 <sup>c</sup>	3.98 <sup>b</sup>	3.91 <sup>c</sup>	0.05	0.33	0.53	0.33	4.16
Don't believe ads	2.50	2.66 <sup>c</sup>	3.04 <sup>c</sup>	3.67 <sup>c</sup>	0.09	0.97	2.04	0.16	2.87
Buy through direct marketing	5.94	2.67 <sup>c</sup>	3.87 <sup>c</sup>	2.99 <sup>c</sup>	1.31	1.39	0.98	0.25	3.99
Family and friends provide better information than mass media	7.49 <sup>a</sup>	3.06 <sup>c</sup>	2.91 <sup>c</sup>	3.83 <sup>c</sup>	0.98	1.19	0.74	0.31	5.93
Advertising is only useful if it addresses my needs	2.60 <sup>c</sup>	2.34 <sup>c</sup>	3.54 <sup>c</sup>	3.06 <sup>c</sup>	1.42	1.11	1.29	0.17	3.75
Media should provide relevant information	4.16 <sup>b</sup>	2.72 <sup>c</sup>	3.16 <sup>c</sup>	2.90 <sup>c</sup>	1.23	1.41	0.98	0.19	2.93

Code: D = disability, A = age, I = income.

<sup>a</sup> Significance level  $\leq .0001$ .

<sup>b</sup> Significance level  $\leq .01$ .

<sup>c</sup> Significance level  $\leq .05$ .

*Radio.* The nondisabled respondent was more likely to listen to all talk ( $\chi^2 = 21.4, p \leq .001$ ), National Public Radio ( $\chi^2 = 10.2, p \leq .01$ ), and classical music ( $\chi^2 = 14.9, p \leq .001$ ). The disabled respondent was more likely to listen to country and western music ( $\chi^2 = 9.5, p \leq .01$ ) and religious/gospel music ( $\chi^2 = 7.8, p \leq .05$ ). Considering age and income does not change these results.

*Direct Marketing.* Given the limited mobility of the disabled group examined, we expected them to be frequent users of direct marketing media. That expectation is confirmed in that the disabled respondents were more likely than the nondisabled to use catalogs ( $\chi^2 = 33.8, p \leq .001$ ), home shopping channels ( $\chi^2 = 25.2, p \leq .001$ ), 800 numbers ( $\chi^2 = 11.4, p \leq .01$ ), and direct mail ( $\chi^2 = 9.3, p \leq .05$ ). Age changes the outcome only for telemarketing.

### Media Attitudes

Disabled consumers appear to have different attitudes toward media and advertising value than their nondisabled cohorts (see Table 3). To determine the relative power of disability status to predict advertising attitudes, and still control for the age and income of the subjects, we used the analysis of covariance option of the GLM program in SAS which combines some of the features of regression and analysis of variance. It provides an overall F-value for the entire model, individual F-values for each main effect and set of interactions, and a separate F-value adjusted for the two covariates. An R<sup>2</sup> value is also reported.

The disabled had significantly more negative attitudes toward media than the nondisabled. Disability status proved to be a significant predictor with con-

Table 4  
Responses of Disabled Group to Media Needs Questions

Question	Response	Percent
Media easiest to use	TV	1.5
	Radio	2.4
	Magazines	5.5
	Newspaper	7.9
	Catalog	72.4
	Other DM	10.3
Media used to learn about new products/services	TV	29.7
	Radio	5.8
	Magazines	4.9
	Newspaper	13.8
	Catalog	40.3
	Other DM	5.5
Source of product/service communications that cause you the most inconvenience	TV	18.3
	Radio	21.4
	Magazines	22.3
	Newspaper	9.9
	Catalog	10.4
	Other DM	17.7
Direct marketing or mass marketing communication more useful	Direct marketing	71.4
	Mass marketing	28.6

trol for age and income of the following responses to a series of attitude statements: (significantly more negative attitude) "Advertising insults my intelligence," "I don't believe a company's ad when it claims to be better than competitive products," "I have no qualms buying through direct marketing," "Family and friends provide better information than mass media," "Advertising is only useful if it addresses my needs," and "Media should provide relevant information." The nondisabled had significantly more positive attitudes, agreeing that "information from advertising helps me make better buying decisions" and "magazines are more interesting than television."

All but one of our five research propositions are supported. The mobility-disabled respondents preferred television to magazines, but they had a more negative attitude toward advertising, used personal sources of information more than mass media sources, preferred mass media targeted specifically to them, and preferred media having relevant content. Confir-

mation of these four propositions has meaningful implications for advertising as a general communication technique, as well as for message development and media selection strategies. In all three cases, advertisers must make adjustments to communicate effectively with the mobility-disabled.

### Media Needs

The media needs of the disabled have not been addressed previously. Our four questions represent a very basic first attempt to do so. The results are summarized in Table 4. When respondents were asked which medium was easiest to use, catalogs were chosen by the overwhelming majority (72.4%), followed by other direct marketing (10.3%). That pattern changed somewhat when respondents were asked which medium they used to learn about new products/services. Again, catalogs were first (40.3%), followed by TV (29.7%) and newspapers (13.8%). As the

medium that caused respondents the "most inconvenience" and was "widely distrusted," magazines led (22.3%), followed by radio (21.4%) and TV (18.3%). Finally, when asked whether they found direct marketing communication or mass marketing communication more useful, more than 71% of the respondents preferred direct marketing to mass marketing.

### Discussions and Implications

The first question addressed in our study was whether mobility-disabled consumers are different from nondisabled consumers on several media-related variables. Clearly, the results confirm that they are. The mobility-disabled consumer is a limited reader of newspapers, other than the *National Enquirer* and *Star*. Such individuals lack interest in the special sections of newspapers, perhaps because they do not have the resources or the physical capability to invest in the activities reported there. One can only speculate whether the lack of interest in reading matter was established before or after the disability. The findings are similar for magazines. The reported low incomes of the mobility-disabled seem to affect the types of magazines preferred. The group reported little interest in reading upscale or activities-related magazines such as *Business Week*, *New Yorker*, *Field & Stream*, *Fortune*, and *National Geographic*. Their low regard for print media is substantiated by the attitude statements (see Table 3); the mobility-disabled "prefer television over magazines." These findings are inconsistent with those reported in the geriatric literature.

The mobility-disabled respondents expressed a general preference for broadcast media, and differed from the nondisabled group in television program preferences and radio format preferences. Again, there is a strong indication that the feeling of alienation associated with the disabled is reflected in program preferences. How does a disabled person reduce tendencies of hopelessness and loneliness? In the case of television, the mobility-disabled consumer has a significantly greater preference for programs that fill time (prime-time movies, late night movies, and soap operas) or appeal to people in lower socioeconomic categories (game shows, talk shows, *Nick-at-Nite*, and *Roseanne*). Certain programs and channels appeal more to the nondisabled group: *Home Improvement*, PBS, premium pay cable, *Seinfeld* and *60 Minutes*. The pattern is somewhat the same for radio. Whereas the nondisabled have a significantly greater prefer-

ence for all talk, NPR, and classical music formats, the disabled group prefers country and western and religious (gospel) music formats. Rather than confronting issues of the day, that type of radio programming emphasizes hope and potential. Resolving one's own problems appears to be more important than addressing the problems of people who have no disabilities.

Our findings also reflect the disability characteristics of the subjects examined. For example, by definition the majority of mobility-disabled consumers find getting out to be difficult. Consequently, staying at home would be more common than shopping. Given their low income, watching television would be more affordable than purchasing magazines and newspapers. Watching television or listening to the radio would also be less physically challenging. The same factors may explain the mobility-disabled consumers preference for direct marketing (see Table 2), at least consumer-initiated direct marketing techniques such as catalogs, home shopping channels, 800 numbers, and media ordering. The negative attitudes many consumers have about telemarketing is shared by the disabled.

Perhaps the most interesting findings pertain to the attitudes of the disabled toward several advertising-related issues. The mobility-disabled neither like advertising nor feel it is useful in making purchase decisions. In fact, the disabled tend to have a rather negative attitude toward advertising as an information source and a positive attitude toward direct marketing. Again, feelings of alienation and of being ignored by an uncaring society are a possible explanation. As most advertising is targeted at the nondisabled, we can understand why the mobility-disabled may resent advertising and consequently find it useless. Direct marketing in contrast, enhances their ability to be normal consumers, and is very much appreciated. Still, advertising that has relevant content, expresses an awareness for the needs and wants of the disabled, and offers the same insights as their personal sources of information should be well received by mobility-disabled consumers. Such advertising is similar to that used in targeting the elderly. Advertisers who have adopted such approaches have had positive responses from mature consumers.

The last set of findings reflect the disabled consumers' general preference for direct marketing media over mass media. They emphasize the need for the advertising industry to be more responsive to the communication needs of the mobility disabled.

### Study Limitations

Our results must be considered in light of the limitations of our study. Most notably, the moderating effects of several demographic variables such as gender, marital status, and race were not included in the analysis. Future research should include not only those variables, but also others discussed in the theory section. Specifically, the perceived severity of the disability, the extent to which society alienates the individual or the individual feels alienated, and relevant personal characteristics should all be considered.

In addition, the sample frame of our study and the particular questions asked were limited. Other disability groups should be surveyed and additional advertising-related issues should be addressed. For example, assessing the effectiveness of various creative strategies among other disability classifications would be helpful. Finally, though we found differences between the disabled and nondisabled categories, to some extent they overlap in terms of demographic characteristics. Interpretation was therefore difficult and somewhat suspect. However, our findings provide direction for future hypothesis testing.

### Implications for Advertisers

Despite the limitations, our findings have important implications for the advertising practitioner. First, disability status is a less manageable characteristic to both identify and measure than other consumer traits. Although information can be obtained through various secondary sources, such as employment records, membership in specific organizations, and subscriptions to magazines and other publications targeted to the disabled, there is no guarantee that those sources will capture the many combinations and complexities associated with a particular disabled person. If advertisers are to reach and appeal to disabled consumers, they must develop data-gathering techniques that will correctly and meaningfully categorize the disabled.

A second implication pertains to how advertisers should approach the disabled. The mobility-disabled consumers in our study had a media usage pattern and an attitude toward advertising that were significantly different from those of the nondisabled. Newspaper and magazine advertising would be of little use in targeting disabled consumers. Their disinterest in the print media may be partly a function of their physical condition (e.g., physically manipulating a newspaper or magazine may be difficult) and partly

due to their economic status, feelings of alienation, and perception of the value of the information in newspapers and magazines. Advertisers could target mobility-disabled consumers more effectively through both television and radio. Perhaps the emotional and entertainment value of broadcast media prompts stronger preferences. Clearly, though, a well-conceived broadcast strategy is possible with the disabled. Finally, direct marketing media are the best alternatives for reaching the mobility-disabled. They are currently the most disability-friendly media in that they mitigate the problems faced by the mobility-disabled. Correct portrayal of the disabled would be important in designing these pieces.

A third implication for advertisers is that media strategy may be thwarted by the strong negative attitude the mobility-disabled hold toward much of society in general and advertising in particular. Essentially, the mobility-disabled do not like advertising, do not believe what it says, and do not use it in making decisions. Like the elderly, the mobility disabled rely more heavily on word-of-mouth than on advertising. Does this mean advertisers should forget the disabled? Absolutely not. Much of the dislike apparently is based on the fact that advertising in general has done such a poor job of relating to the disabled. In fact, advertisers who are willing to learn about disabled consumers and design targeted strategies that address their needs and wants will find a very receptive audience.

All these implications are confirmed by the responses to our last set of questions. Disabled consumers want to use media that facilitate their lives. Anything that enables them to be normal consumers will be rewarded with loyalty and favorable response.

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