GENDER DIFFERENCES IN THE USE OF REMOTE CONTROL DEVICES

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Abstract

The remote control device (RCD) is a choice-facilitating element in the television environment. This study examined attitudes and behaviors associated with RCD use as a function of gender differences. Using 1990 telephone data (N=583), t-tests found men changing channels with the RCD more often than women, even during favorite programs. Boredom, commercial avoidance, and watching two shows (as motivations for RCD behavior) were reported more often by men. Women reported curiosity more often.

Gender Differences in the Use of Remote Control Devices

Part of the promise of the "new media environment" is that unbounded choice replaces the homogeneity of the "old media" (Webster, 1986). In addition to cable television and the videocassette recorder (VCR), the remote control device (RCD) is a choice-facilitating element in the new media environment. This study examined attitudes and behaviors associated with RCD use, especially as a function of gender differences.

The research question here sought to identify which attitudes and behaviors showed significant gender differences and what motivations were behind such differences. Based on the review of literature, it was anticipated that men would process information differently than women, as indicated by RCD use. The implications of how men and women use RCDs differently to view television have practical impact on television programmers and theoretical importance for television choice models (Heeter, 1985; Webster & Wakshlag, 1983).

The popular media (e.g., cartoons, greeting cards, television shows) have taken note of the apparent differences in RCD behavior: Men are often portrayed as channel-hopping television viewers ("The Battle," 1991; Kissinger, 1991). Women, for their part, react to such behavior in various ways: anger, ridicule, and exasperation.

A series of focus groups (Ferguson, 1990a) produced evocative comments about gender differences surrounding RCD use. Several male participants admitted to fighting over the remote control:

My roommates and I fight over the remote. When we leave the room we hand it off to another guy to make sure someone else doesn't get it.

Sometimes we'll hide it. Reminds me of people who call the remote God [because it] controlled their life.

Often there was a sense of frustration directed at the person (always male, in this purposive sample of women and men) who controlled the remote control:

My dad is a cruiser. He'll flip it back and forth and it gets real irritating.

My dad does that, just something fierce. It makes me so mad. 'Cause I'll sit down and he'll be watching something and I'll watch it and just at the point -- I don't know how he does this -- just at the point when I'm getting in to it, he'll flick it to something else. Then I'll watch that, and I'll just be getting in to it, and he'll flick to something else. Everyone gives him a hard time, but he thinks they're kidding him.

This qualitative research produced six themes about viewing in the new media environment: selective viewing as a purposeful activity, the use of television as a source of noise, boredom as a prerequisite to choice, RCD channel flipping as a flourishing phenomenon, a sense of interruption as a part of the viewing experience, and a sense of frustration over control as a part of RCD use. Ferguson concluded that people are using new media technologies to view prime-time television selectively.

Gender differences in television viewing have been studied previously. Heeter (1985) reported that males use viewing guides less, change channels more, watch more different channels, engage in less concentrated channel use, and are more familiar with different channels. Heeter (1988) also noted several gender differences in television viewing loyalty. Ten separate studies using a variety of methods revealed that females are more likely to watch the same daily and weekly programs and that men are less likely to plan their

viewing before turning on the television set. However, Heeter did not link gender differences to the use of remote control devices.

Although previous research has shown that men and women watch television differently as individuals, the same may not be true when the unit of analysis is family usage. Lindlof and Shatzer (1989) used Q-sort analysis to show greater perceptual similarities than differences when spousal viewing was considered with regard to family use of the VCR.

There have been many studies done on the gender differences between children watching television. Haefner, Metts, and Wartella (1989) noted differences in power strategies between boys and girls when resolving conflict over television program choice. They suggested that male dominance in the television context may be established earlier in life, explaining later father and husband dominance found by Morley (1986).

Gender Research

One possible explanation for RCD-related gender differences concerns the dissimilar ways that males and females process information and render judgments. Meyers-Levy (1989) presented an extensive review of the literature on information-processing. Meyers-Levy was able to reconcile sometimes contradictory findings by postulating a selectivity hypothesis, based on the idea that males do not comprehensively process all available information, relying instead on highly available and salient heuristic cues.

The selectivity hypothesis suggests "females generally attempt to engage in a rather effortful, comprehensive, piecemeal analysis of all available information" (Meyers-Levy, 1989, p. 221). Although neither of the two strategies are superior to the other, the author found support in the research

literature for gender differences on several levels of information-processing: interpretation, play behavior, other-directed interactions, spatial versus linguistic skills, and influenceability. The research focused on different styles of advertising for men and women, but could suggest that men use the remote control more often because of their faster (though not necessarily better) decision-making. It is important to note that neither approach is inherently superior, but may serve to explain gender differences in information processing.

Attention span has been also studied by different researchers.

Anderson (1986) reported that men looked at the television set more than women. Although Stauffer, Frost, and Rybolt (1983) found no gender differences in the recall of network television news programs, Gould (1987) noted that younger females recalled more television commercials than other male and female groups. Gould attributed such findings to greater self-consciousness among younger females.

Attitudinal and behavioral differences have been studied in gender research. Dovidio et al. (1988) reported differences in verbal and nonverbal displays of power. Nadler and Nadler (1987) found women to be less successful in intraorganizational negotiation situations, because of such variables as cognitive and behavior orientations toward conflict situations. Conflict in the form of greater aggravation and powerlessness while choosing television programs could be expected with regard to remote control attitudes for women. Mickelson (1989) used theories of social powerlessness to formulate hypotheses regarding women's academic achievement.

Another area of gender research concerns critical approaches. Rakow (1988) argued that technology itself expresses mainly male values and meanings. Carter and Spitzack (1989) have criticized the predominate theories and methods used in communication research. Nadler, Nadler, and Todd-Mancillas (1987) also have summarized critical writings, especially concerning conflict and negotiation. LaDuc (1990) attempted to reconcile biological and sociological explanations by devising a continuum of behaviors. LaDuc believed that the continuum suggested ways "to overcome our fear of physiologically-based research through the realization that it may enrich our search for explanations of sex/gender differences rather than narrowly circumscribe them" (p. 28).

Remote Control Research

Remote control research represents an important yet under-researched area of the new media environment. Remote control penetration in 1990 had reached 77% of television households in the United States (Shagrin, 1990), although the inclusion of VCR remote control devices has reportedly inflated such Nielsen estimates 10 percentage points (Sylvester, 1990). Heeter and Greenberg (1985; 1988) examined the impact of RCDs among cable viewers, pointing out that viewers with RCDs are more likely to zap commercials during and between programs.

Ainslie (1988) reported on "grazing" (flipping through channels with remote control devices) as a new way of watching television. Drawing on a national sample of 650 adult respondents surveyed by Frank N. Magid Associates, Ainslie revealed that two major motivations for grazing were boredom and concern for missing a better program on another channel.

Brown (1989) summarized the findings of the Magid study, warning that it would be "perilous" for broadcasters to downplay the importance of grazing (p. 55).

Walker and Bellamy (in press) wrote that the "neglect of RCDs by communication researchers is unfortunate" (p. 3). Their research centered on a transactional model of gratifications/effects. Using a sample of university students (N=455), they reported a factor analysis of gratifications that identified selective avoidance as an important motivation for RCD use.

Wenner & Dennehy (1990) reported evidence that the RCD is a toy technology rather than a tool technology (for another view, see Bellamy & Walker, 1990). This finding supports Meyers-Levy's notion that males use concrete props for play behavior and females rely more on fantasy or pretending. This may be the result of "greater participation of boys in low-structure settings and girls in high-structure settings" (Meyers-Levy, 1989, p. 225). There is also evidence that women are more likely to self-focus than men (Ingram, Cruet, & Johnson, 1988).

There is no evidence that recall of information is related to gender (Stauffer, Frost, & Rybolt, 1983). Nor is there conclusive evidence regarding left brain-right brain gender differences (e.g., Bowers & LaBarba, 1988; Kertesz, Polk, Howell, & Black, 1987).

This present study sought to identify which attitudes and behaviors showed significant gender differences. The findings, like those in the Magid study, are based on a random telephone survey.

Method

A telephone survey in Spring 1990 used a random-digit dialing technique that assigned four digits to three available telephone prefixes, weighted by their actual distribution within the town (Frey, 1983). The target population was adults living off-campus in a university town in the Midwest. Trained college students in an audience measurement class dialed 2452 numbers from a closely-supervised central location. Nonworking numbers accounted for 1364 attempts, leaving 1088 valid attempts. Each working random number was dialed three times and callbacks were used. After deleting 130 business numbers and 193 no answers, there were 765 phone numbers in the sample. There were 583 completions, with 182 refusals, for a 76.2% completion rate.

The survey collected information on technology ownership (TV, cable, pay cable, VCR, satellite dish) and basic demographics patterned after the Magid study (sex, education, age, and income). Behaviors associated with RCD use (flipping, checking TV listings, grazing, increased use, agreement, and verbal disagreement) were asked to detect differences. The questionnaire also surveyed attitudes toward RCDs to determine gender differences regarding decision-making, aggravation, feelings of power, and television enjoyment.

Flipping frequency was determined by asking: "During a typical hour of TV viewing yesterday, how often did you change the channel?" If the respondent did not watched television "yesterday," the interviewer asked about "the day before yesterday." There was no third chance given; other responses were coded as missing data.

Respondents identified their motivations for flipping through channels during programs by verbal frequencies (always-usually-rarely-never), using statements that also closely paralleled the national data from the Magid study (Brown, 1989). Specifically, there were six motivations for changing channels during programs: (1) to escape boredom, (2) to avoid missing a better show, (3) to check other programs out of curiosity, (4) to avoid commercials, (5) to avoid certain persons on television, and (6) to watch two or more channels at the same time. These "flipping motivations" were cross-validated earlier in the survey by an open-ended question regarding the respondents' major reason (and any "other reason") for changing channels with the remote control. This informal quality control was done to make sure that respondents were really aware of "why" they changed channels using RCDs.

The statistical package SPSS Version 4.0 was used for all computations. The analysis of gender differences was conducted by means of the t-test.

Results

Despite attempts to interview that person who had the "last birthday" in the household, 58 percent of the respondents were females. Even so, the difference in cell sizes for female and male users of RCDs was never sufficiently large to violate the assumptions of t-test comparisons.

Nearly 76% of the 583 respondents ($\underline{\mathbf{n}} = 442$) owned a remote control device for their television set. The average cable penetration was 67.2% and VCR penetration was 71.1%. There were no gender differences for these variables measuring technology presence.

Remote control frequency ($\underline{n} = 350$) ranged from 0 to 50 changes per hour ($\underline{M} = 4.92$, $\underline{SD} = 5.75$). When flipping frequency was examined by gender, women changed channels an average 4.1 times per hours ($\underline{SD} = 4.2$). Men changed channels 5.9 times per hour ($\underline{SD} = 7.1$), significantly more often than women (t = 2.8, p < .01).

The flipping motivations ($\underline{\mathbf{n}} = 412$) were coded 4=always, 3=usually, 2=rarely and 1=never. In descending order, the responses to the question "How often do you change channels because . . ." were: boredom ($\underline{\mathbf{M}} = 2.85$, $\underline{\mathbf{SD}} = .78$), curiosity ($\underline{\mathbf{M}} = 2.73$, $\underline{\mathbf{SD}} = .81$), avoid commercials ($\underline{\mathbf{M}} = 2.47$, $\underline{\mathbf{SD}} = 1.06$), avoid missing a better program ($\underline{\mathbf{M}} = 2.39$, $\underline{\mathbf{SD}} = .81$), avoid certain people ($\underline{\mathbf{M}} = 2.09$, $\underline{\mathbf{SD}} = .88$), and watching two or more shows ($\underline{\mathbf{M}} = 1.76$, $\underline{\mathbf{SD}} = .86$).

Table 1 shows the gender differences associated with the six

Table 1 about here

flipping motivations. All but two (changing channels to check other programs and fear of missing a better show) showed significant differences (p < .05).

Table 2 summarizes the differences in RCD behaviors between

Table 2 about here

men and women. Women were less likely to graze during favorite programs (t = 3.13, p < .001). None of the other behaviors showed gender differences.

The attitudinal measures produced two substantial differences

Table 3 about here

between women and men. Women were much more likely to express aggravation when another person used the RCD for grazing ($\underline{t} = -5.46$, p < .001). Also, men were more likely to report feeling more powerful when in control of the RCD ($\underline{t} = 3.43$, p < .001).

Discussion

This study looked at the relationship between gender and RCD use. Heeter (1985) found that men change channels more often, but did not connect the behavior to RCD use. The more important finding here is that men are more likely to change channels with an RCD (sometimes even during their favorite programs) for three reasons: boredom, aversion to commercials, and the desire to watch two or more programs. Women are more likely to change channels with an RCD out of curiosity. Furthermore, the RCD apparently gives men a feeling of power and creates a source of aggravation for women.

The research findings here serve to focus on the motivations behind the role of gender in program choice models (e.g., Heeter, 1985; Webster & Wakshlag, 1983). Heeter (1985) found that gender (as a viewer attribute) had a consistent relationship with choice process variables (such as channel changing frequency). The present study looked at possible "uses and

gratifications" of the choice process. The results here add to the understanding of television viewing: to know why choices are being made, from a functional point of view.

The difference regarding feeling of power may be more related to gender and power in general (cf. Dovidio et al., 1988) than to RCD use in particular. Power may be a feeling that men are socialized to disclose. However, there is insufficient evidence in this study to suggest why men are more likely to report feeling more powerful. More research needs to be done in this area.

The findings of this study are important to scholars and practitioners who study the multichannel environment. On a practical level, remote control devices are changing the way people watch television, although apparently to a lesser degree than cable television and VCRs. It also seems likely that the cumulative effects of choice-facilitating devices and proliferating channels make male viewers more selective.

Why are there apparent gender differences in RCD use? The explanation offered by Meyers-Levy (1989) is appealing but far from certain. Perhaps women process information differently than men do. Even if this is true, what are other possible factors? Future research needs to test such explanations.

The findings of this study are subject to the usual limitations of self-report data and university-town samples. Future research on remote control behavior needs more objective information on channel selection, possibly through meters instead of diaries. Arbitron and Nielsen already measure VCR recording and playback; the need exists for similar information

on remote control use. Sylvester (1990) is one of the first voices among the advertising community to cajole such data from the ratings services.

Another consideration for further research is that all remote controls are not created equally (see Heeter & Greenberg, 1988, pp. 45-47). For example, there is a remote control device feature called Quick-View (Consumer Reports, Jan. 1983, p. 36) that memorizes the last two channels watched so sports viewers can easily watch two games at the same time. Some RCDs permit random access, while others can only step up or step down. Also, Canadians have developed interactive uses for RCDs (Moshavi, 1990).

Television markets with higher VCR and cable penetration produce more selective viewers (Ferguson, 1990b). In a similar way, viewers with RCDs and enhanced channel repertoires are actively selecting their own new media environments (Ferguson, in press). The remote control device is an important element in the new media environment, despite a scarcity of published research on RCDs.

References

- Ainslie, P. (1988, September). Confronting a nation of grazers. <u>Channels</u>, pp. 54-62.
- Anderson, D. R. (1986). Television viewing at home: Age trends in visual attention and time with TV. <u>Child Development</u>, <u>57</u>, 1024-1033.
- The battle (zap! click!) of the sexes. (1991, July 7). New York Times [editorial], section 4, p. 10.
- Bellamy, R. V. Jr., & Walker, J. R. (1990, November). The diffusion of a tool technology: The political economy of the remote control device. Paper presented to the annual meeting of the Speech Communication Association, Chicago.
- Bowers, C. A., & LaBarba, R. C. (1988). Sex differences in the lateralization of spatial abilities: A spatial component analysis of extreme group scores.

 Brain and Cognition, 8, 165-177.
- Brown, M. (Ed.) (1989). <u>How Americans watch TV: A nation of grazers</u>. New York: C.C. Publishing.
- Carter, K., & Spitzack, C. (1989). (Eds.). <u>Doing research on women's communication: Perspectives on theory and method</u>. Norwood, NJ:

 Ablex.
- Dovidio, J. F., Brown, C. E., Heltman, K., Ellyson, S. L., et al. (1988). Power displays between women and men in discussions of gender-linked tasks: A multichannel study. <u>Journal of Personality and Social Psychology</u>, <u>55</u>, 580-587.

- Ferguson, D. A. (1990a). Selective exposure to television: An exploratory study of VCR usage. Paper presented at the annual meeting of the Speech Communication Association, Chicago.
- Ferguson, D. A. (1990b). Selective exposure to television: Predicting inheritance effects from VCR and cable penetration. Paper presented at the annual meeting of the Speech Communication Association, Chicago.
- Ferguson, D. A. (in press). Channel repertoire in the presence of remote control devices, VCRs, and cable television. <u>Journal of Broadcasting & Electronic Media</u>.
- Frey, J. H. (1983). <u>Survey research by telephone</u> (pp. 91-104). Beverly Hills, CA: Sage.
- Gould, S. J. (1987). Gender differences in advertising response and self-consciousness variables. <u>Sex Roles</u>, <u>16</u>(5/6), 215-225.
- Greenberg, B. S., Heeter, C., & Lin, C. A. (1988). Playboy viewing styles. In C. Heeter & B. S. Greenberg (Eds.), <u>Cableviewing</u>. Norwood, NJ: Ablex Publishing Company.
- Haefner, M. J., Metts, S., & Wartella, E. (1989). Siblings' strategies for resolving conflict over television program choice. <u>Communication</u> <u>Quarterly</u>, <u>37(3)</u>, 223-230.
- Heeter, C. (1985). Program selection with abundance of choice: A process model. <u>Human Communication Research</u>, <u>12</u>(1), 126-152.
- Heeter, C. (1988). Gender differences in viewing styles. In C. Heeter & B. S. Greenberg (Eds.), <u>Cableviewing</u>. Norwood, NJ: Ablex.

- Heeter, C., & Greenberg, B. S. (1985). Profiling the zappers. <u>Journal of Advertising Research</u>, 25(2), 15-19.
- Heeter, C., & Greenberg, B. S. (1988). Cableviewing. Norwood, NJ: Ablex.
- Ingram, R. E., Cruet, D., & Johnson, B. R. (1988). Self-focused attention:

 Gender, gender role, and vulnerability to negative affect. <u>Journal of Personality and Social Psychology</u>, <u>55</u>, 967-978.
- Kertesz, A., Polk, M., Howell, J., & Black, S. E. (1987). Cerebral dominance, sex, and callosal size in MRI. Neurology, 37, 1385-1388.
- Kissinger, D. (1991, February 25). Zap-happy fellas widen ratings gender gap.

 <u>Variety</u>, pp. 59, 63.
- LaDuc, L. M. (1990, November). From "sex differences" to "gender differences":

 Toward an integrated model of the relationship between
 communication behavior, cognition, and neurophysiology. Paper
 presented at the convention of the Speech Communication Association,
 Chicago.
- Lindlof, T. R., & Shatzer, M. J. (1989). Subjective differences in spousal perceptions of family video. <u>Journal of Broadcasting & Electronic Media</u>, <u>33</u>, 375-395.
- Meyers-Levy, J. (1989). Gender differences in information processing: A selectivity interpretation. In P. Cafferata & A. M. Tybout (Eds.),

 Cognitive and affective responses to advertising (pp. 219-260).

 Lexington, MA: Lexington Books.
- Mickelson, R. A. (1989). Why does Jane read and write so well? The anomaly of women's achievement. <u>Sociology of Education</u>, <u>62</u>(1), 47-63.

- Morley, D. (1986). <u>Family television: Cultural power and domestic leisure</u>. London: Comedia.
- Moshavi, S. D. (1990, August 13). Montreal cable offers interactive options.

 Broadcasting, pp. 60, 62.
- Nadler, L. B., Nadler, M. K., & Todd-Mancillas, W. R. (1987). <u>Advances in gender and communication research</u>. Lanham, MD: University Press of America.
- Nadler, M. K., & Nadler, L. B. (1987). Communication, gender, and intraorganizational negotiation ability. In L. P. Stewart and S. Ting-Toomey (Eds.), Communication, gender, and sex roles in diverse interaction contexts (pp. 119-134). Norwood, NJ: Ablex.
- Rakow, L. F. (1988). Gendered technology, gendered practice. <u>Critical Studies</u>
 in Mass Communication, 5(1), 57-70.
- Stauffer, J., Frost, R., & Rybolt, W. (1983). The attention factor in recalling network television news. Journal of Communication, 33(1), 29-37.
- Sylvester, A. K. (1990, February). Controlling remote. <u>Marketing & Media</u>

 <u>Decisions</u>, p. 54.
- Walker, J. R., & Bellamy, R. V. Jr. (in press). The gratifications of grazing: An exploratory study of remote control use. Journalism Quarterly.
- Webster, J. G. (1986). Audience behavior in the new media environment.

 <u>Journal of Communication</u>, <u>36(3)</u>, 77-91.
- Webster, J. G., & Wakshlag, J. (1983). A theory of television program choice.

 Communication Research, 10, 430-447.
- Wenner, L. A., & Dennehy, M. (1990, November). In our lives, in our hands:

 Towards and understanding of remote control use. Paper presented at

the annual meeting of the Speech Communication Association, Chicago.

<u>Table 1</u>
<u>Gender Differences for RCD Motivations</u>

Flipping Motivations	Women	Men	<u>t</u>	<u>p</u>
Avoid boredom	2.74	2.99	3.21	.00
Avoid missing better show	2.46	2.32	1.73	.09
Check other shows (curiosity)	2.84	2.64	2.51	.01
Avoid commercials	2.27	2.72	4.43	.00
Avoid people	2.02	2.18	1.84	.07
Watch two or more shows	1.61	1.95	3.95	.00

Note. Motivations defined as how often the channel was changed because of the given reason (4=always, 3=usually, 2=rarely, 1=never)

<u>Table 2</u>
<u>Gender Differences for RCD Behaviors</u>

Flipping Behaviors	Women	Men	<u>t</u>	<u>p</u>
Flip back to original show	2.43	2.52	1.15	.28
Use RCD as listings substitute	2.56	2.69	1.35	.18
Graze during favorite program	1.55	1.76	3.13	.00
Watch more TV if with RCD	2.62	2.77	1.73	.09
Agree with RCD controller	2.54	2.55	.07	.95
Voice opinions (disagreements)	2.71	2.76	.61	.54

 $\underline{\text{Note.}}$ Behaviors defined as how often the behavior occurred (4=always, 3=usually, 2=rarely, 1=never)

Table 3

Gender Differences for RCD Attitudes

RCD Attitudes	Women	Men	<u>t</u>	<u>p</u>
RCD controller makes decision	2.71	2.72	.07	.94
Aggravation at RCD grazing	3.12	2.63	-5.46	.00
Feel more powerful with RCD	2.21	2.60	3.43	.00
TV more enjoyable with RCD	3.03	3.15	1.53	.13

Note. Attitudes were measured on an agreement scale (4=strongly agree, 3=agree, 2=disagree, 1=strongly disagree)