Television and the Cultivation of Gender-Role Attitudes in Japan: Does Television Contribute to the Maintenance of the Status Quo?

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This study examines whether television viewing cultivates traditional gender-role attitudes and contributes to the maintenance of the status quo. Data from a sampling survey conducted in Tokyo reveal that the direction and magnitude of cultivation relationships vary across different subgroups. The results suggest that television tends to decelerate social change by cultivating traditional views among many viewers (especially females) but may “liberate” the most conservative viewers. The results also produced mostly unsupportive evidence in relation to the mainstreaming hypothesis; the patterns of interaction found in this study are more complicated. This article discusses the theoretical and methodological implications of these findings.

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Equality between women and men in Japan has dramatically improved over the past few decades. Along with political and societal changes, social consciousness in relation to gender roles has also been changing. Despite marked changes in the status of women within Japanese society and heightened consciousness with respect to gender equality, many studies have indicated that equality between the sexes has not been fully achieved. For example, according to a 2005 report on human development (United Nations Development Programme, 2005), Japan ranked 43rd out of the 80 countries surveyed in terms of the gender empowerment measure. Furthermore, in a public opinion survey conducted by the Cabinet Office in January 2004, approximately 74% of the respondents reported that men and women were not equal in terms of overall social status. Respondents reported that inequality was particularly evident in the political domain and in relation to social customs.

Many issues relating to women’s equality remain unresolved. Some expect the mass media in general, and television in particular, to take the initiative in promoting a more gender-equal society. However, as will be discussed in the following
sections, television is often criticized for conveying images pertaining to traditional gender roles, and thus contributing to the maintenance of a masculine cultural hegemony. Does television really decelerate social change? This paper discusses the role of television as it relates to attitudes concerning gender roles. More specifically, this study applies cultivation theory to examine the impact of exposure to entrenched systemic patterns in television content on gender-role attitudes and whether television viewing contributes to the maintenance of the status quo.

Theoretical background: Cultivation theory as a critical, social scientific theory
For the past 3 decades, research on the contribution of television to our conceptions of social reality has often been guided by cultivation theory. Gerbner and his colleagues postulated that the more time individuals spend watching television, the more likely it is that their conceptions of social reality will reflect what they see on television (Gerbner & Gross, 1976; Gerbner, Gross, Morgan, & Signorielli, 1980, 1986). They also proposed that heavy television consumption contributes to a homogenized view of the real world, referring to this process as “mainstreaming” (Gerbner et al., 1980, 1986). As for the mechanism for this phenomenon, Morgan (1990) stated that “people who spend great amounts of time watching television are likely to be exposed to a more centralized, consistent, standardized ideology and world view; hence, they should be more like each other than they are like the members of their groups who watch less” (p. 244).

Although cultivation theory originated in the United States, researchers have demonstrated that this theory also applies in other countries, including Argentina (Morgan & Shanahan, 1991), Taiwan (Morgan & Shanahan, 1992), Korea (Kang & Morgan, 1988), and England (Piepe, Charlton, & Morey, 1990), and Japan (Saito, 1999). Although many studies based on cultivation theory have examined perceptions of, and attitudes toward, violence or crime, others have applied the theory to a wide variety of topics, including attitudes pertaining to gender roles (Morgan, 1982, 1987; Signorielli, 1989; Signorielli & Lears, 1992).

Many researchers have tended to regard cultivation theory as a standard empirical media effect theory and have applied it as such in their studies. However, cultivation theory is not just a regular empirical media effect theory; rather, it should be regarded as a hybrid of empirical research on media effects coupled with a critical approach to mass communication. Since the outset of cultivation research, Gerbner et al. (1980, 1986; Gerbner & Gross, 1976) have asserted that television’s main function is social control, stability, and maintenance of the status quo. Gerbner and Gross have noted that television “is an agency of the established order and as such serves primarily to extend and maintain rather than to alter, threaten, or weaken conventional conceptions, beliefs, and behaviors” (p. 175). This view supports Klapper’s (1960) conclusion that the main effect of mass media is reinforcement of the status quo. When Klapper articulated this idea, however, the reinforcement function was not regarded as important by the research community (Roberts & Maccoby, 1985). Gerbner and Gross included this significant but largely
ignored function of the media as part of their main theoretical framework. In a discussion of studies on media effects, Katz (1980) categorized Gerbner et al.’s cultivation theory under “ideological effects.”

A number of researchers have questioned or challenged Gerbner et al.’s assumptions, methodologies, and findings since the first empirical report on cultivation effects was published in 1976 (Gerbner & Gross, 1976). Hirsch (1980, 1981) was one of the earliest, and probably the most strident, critic of the original theory. The controversy between Gerbner et al. and Hirsch revolved around questions of spuriousness and controls. This debate stimulated “a wide-ranging consideration of theoretical and methodological issues important to anyone interested in understanding the effects of mass communication” (Roberts & Maccoby, 1985, p. 582). Following Hirsch, several researchers have conducted extensive reviews of the literature and concluded that while the relationship is generally weak, television viewing may have a nonspurious influence on some aspects of social reality, especially perceptions relating to crime (Cook, Kendzierski, & Thomas, 1983; Hawkins & Pingree, 1982; Ogles, 1987; Potter, 1993).

With regard to the small size of the effect found in many cultivation studies, Gerbner et al. (1986) have contended that the effect is small but persistent and have argued that “even light viewers live in the same cultural environments as most others, and what they do not get through the tube can be acquired indirectly from others who do watch television” (p. 21). Potter (1991, 1994) has, however, suggested another possible reason for the small size of cultivation effects. He has argued that cultivation relationships are nonlinear and “The nonlinear nature of the relationship could be a major reason why correlation coefficients never exceed a modest magnitude” (Potter, 1994, p. 24). To pursue this possibility, this study tested several nonlinear solutions to examine whether any of these transformations would be a better predictor.

Another frequently addressed issue in cultivation studies is the level of measured exposure to television. Gerbner and his associates claimed that the message elements leading to cultivation are the ones that cut across most programs and genres and that, thus, overall television viewing is an important theoretical construct and empirical measure (the message system-level measure) (Gerbner, Gross, Morgan, Signorielli, & Shanahan, 2002; Gerbner et al., 1986). Some researchers, however, have disagreed with this assumption, claiming that certain types of program have a stronger association with cultivation effects than do total levels of television viewing (e.g., Hawkins & Pingree, 1981; Potter & Chang, 1990). These authors have asserted that overall viewing is not the most relevant factor in explaining cultivation effects because the effects may be “content-specific” and that, therefore, use of the genre-level measure is more appropriate when testing cultivation hypotheses. Studies that have examined the impact of genre-level messages can be characterized as using an “extended version” of the original cultivation theory. This study, however, examines whether the amount of overall television viewing (i.e., the message system-level measure) cultivates attitudes regarding gender roles. The reasons behind this approach will be discussed in subsequent sections.
Cultivation theory and gender-role attitudes

Shanahan and Morgan (1999) claimed that cultivation researchers have “viewed women as a marginalized social group, given their underrepresentation and over-victimization in the symbolic world of television”; they have also claimed that television tends “to ‘traditionalize’ women’s roles, while privileging the place of men in the society, in the economy, and in the polity” (p. 96).

Volgy and Schwarz (1980) studied a random sample of registered voters in a southwestern U.S. metropolitan community and found a positive relationship between exposure to entertainment programs and viewer acceptance of traditional gender roles; they did not, however, directly refer to cultivation theory. Studies conducted by Morgan (1982, 1987) and Signorielli (1989; Signorielli & Lears, 1992) related more directly to cultivation theory and the Cultural Indicators project. Morgan found that, among adolescents, television cultivates certain attitudes about gender roles. Using 2-year panel data from 6th through 10th graders, Morgan (1982) demonstrated that among girls, television viewing was significantly related to sexism scores a year later; however, an opposite relationship did not apply (i.e., increased sex-typing among girls did not lead to more television viewing). Boys, however, exhibited a precisely reversed pattern. In a second study of adolescents, Morgan (1987) found that television viewing made an independent contribution to adolescents’ attitudes about gender roles over time. Signorielli and Lears reported similar findings from a sample of children.

Signorielli (1989) also conducted a study using a sample of adults. Based on the results of extensive content analysis of the portrayal of women on American television, Signorielli claimed that women in prime-time network dramatic programs were portrayed in traditional and stereotypical ways and that “the image conveyed by prime-time television is that women, especially if married, should stay home and leave the world of work to men” (p. 350). Her research also showed that “Women are seen less often than the men and in many respects may be considered as less important … Women who are employed outside the home are often cast in traditionally female occupations—nurses, secretaries, waitresses, and sometimes teachers” (p. 352). Signorielli conducted a cultivation analysis using four questions about gender roles (e.g., “Do you agree or disagree with this statement? Women should take care of running their homes and leave running the country up to men”) as part of a National Opinion Research Center’s General Social Survey. She found statistically significant (although small) correlations between television viewing and certain attitudes concerning gender roles.

Portrayals of women on Japanese television

No previous cultivation studies have focused on attitudes regarding gender roles in Japan; this study is the first to examine whether television has affected Japanese attitudes regarding gender roles. Before discussing the results of this study, it is first important to examine how women have been portrayed on Japanese television.

Content analysis studies of gender-role portrayals have consistently revealed that stereotypical and traditional male and female images prevail in television dramas.
Content analyses conducted in Japan have revealed tendencies similar to those found in other countries. Iwao (2000) conducted a longitudinal content analysis study of drama programmes from 1977 to 1994. Her extensive research revealed that men consistently outnumbered women: in each year, about 70% of characters were male and about 30% were female. Examination of character ages revealed that male characters were most commonly middle aged (30–59 years old), whereas female characters were most commonly in their 20s. Iwao argued that this skewed tendency indicates that, for women, youth is of significant value, which might, in turn, strengthen traditional attitudes about gender roles. M. F. Suzuki (1995) reported a similar finding, arguing that “the reason that women in lower age brackets are used is that the highest value accorded women in Japan is that they be young and ‘cute’ or ‘beautiful.’” (p. 79). She also pointed out that “criteria for selecting women for television appearance are youth and looks; those for men are social standing, experience, and education” (p. 79).

Examination of characters’ occupations revealed that male characters tended to hold jobs that were traditionally regarded as “male” (e.g., police officer, public official, or soldier), whereas female characters were mainly depicted as housewives or working in traditional “female” jobs, such as in nightclubs (Iwao, 2000). On the other hand, about 12% of female characters were depicted in nontraditional occupations (e.g., bodyguard, prosecutor, or surgeon), but only 3% of male characters were depicted in nontraditional jobs (e.g., nurse). These results indicate that, with regard to occupation, female characters were not necessarily portrayed only in traditional and stereotypical gender-role positions (Iwao, 2000).

However, television dramas have tended to show stereotypical portrayals of household chores. Iwao reported that, on average, about 85% of female characters were engaged in household chores (and many of them were content with their role as homemaker). In contrast, only 5%–19% of male characters performed household chores (this percentage has gradually been increasing over time). Iwao claimed that such non-gender-neutral depictions could maintain and strengthen traditional gender-role stereotypes (e.g., “household chores are something women should do”).

The Forum for Citizen’s Television in Japan conducted a series of content analyses on dramas and cartoons, and concluded that female characters were likely to be portrayed as “dependent, emotional, romantic, cute, tender, warm, dedicated, submissive, cheerful, and peaceful” (M. F. Suzuki, 1995, p. 80); all of these traits are those traditionally considered feminine in Japan. In contrast, female characters portrayed as active, intelligent, courageous, and able to think, plan, and control (traits traditionally considered masculine) rarely appeared on television.

Stereotypical gender portrayals have not been confined to regular drama programmes. For example, Kunihiro (1997) found stereotypical depictions of housewives in children’s educational programs aired by NHK, Japan’s public broadcasting network. She argued that television shows require the audience to understand each
character’s role as quickly as possible within a limited broadcast time, so minor characters are more likely to be depicted in a stereotypical way; for example, the image of a woman wearing an apron signifies that she is a housewife.

Advertising aired on commercial broadcasting stations also contains a number of traditional male and female images (Arima, 2003; Nobushima, 1998; M. F. Suzuki, 1995). For example, Arima’s content analysis of weekday television commercials aired between 18:00 and 23:30 revealed five clusters (types) among the main characters: “beautiful and wise housewives,” “young ladies attracting people’s attention,” “young celebrities,” “middle-aged and older people enjoying private time,” and “middle-aged worker bees.” According to Arima, the first three types were found mainly among female characters and the latter two among male characters. Arima concluded that depictions of women and men differed in Japanese television advertisements, and that the differences corresponded to traditional gender stereotypes. Similarly, M. F. Suzuki (1995) pointed out that television commercials tended to depict women as housekeepers and child carers.

Compared with research into portrayals of women in TV dramas or commercials, content analysis studies examining gender representation in television news are relatively rare. Kodama et al. (1996) analyzed the content of two NHK news programs (News 7 and News 9) that were aired in November and December 1994. Their study revealed that 59.3% of news stories were communicated by males (either newscasters or reporters), 15.6% by females, and 25.1% by both sexes (the unit of analysis was the news story) on News 7. On the other hand, all news stories were reported by male newscasters or reporters on News 9. They also found that reporters appeared on the screen for 13.7% (51 stories) of the total 371 news stories analyzed and that, among these 51 stories, only 11.8% (six stories) were reported by female reporters on News 7. News 9 used no female reporters during that study.

In summary, previous research seems to indicate that Japanese television conveys messages that support attitudes in favor of traditional gender roles at the aggregate level. This does not mean that television never portrays characters in nontraditional gender roles; several dramas have included main female characters with nontraditional occupations such as prosecutor, detective, and lawyer. In some commercials, the main male character does the housekeeping. In recent years, the main news anchors on some news programs have been women. However, research has consistently shown that, overall, images of women and men on Japanese television are still rather traditional. Referring to the United States, Shanahan and Morgan (1999) wrote that “Although real-life sex roles have changed dramatically, television lags behind, and continues to portray men and women unequally” (p. 97). This is probably also the case in Japan.

Hypotheses

Based on the findings of the content analyses summarized above, and on cultivation theory, this study formulated the following basic hypotheses.
H1: Individuals with heavier viewing habits would be relatively more traditional in their attitudes to gender roles.

In addition, following the reasoning of Gerbner et al., this study also hypothesized that some subgroups would exhibit mainstreaming patterns. Mainstreaming refers to the phenomenon that “differences found in the responses of different groups of viewers, differences that usually are associated with the varied cultural, social, and political characteristics of these groups, are diminished in the responses of heavy viewers in these same groups” (Gerbner et al., 2002, p. 51). Thus, as a basic condition for mainstreaming to occur, there should be differences in responses with a dependent variable between subgroups for which a mainstreaming effect will be tested. Shanahan and Morgan (1999) claimed that “The enormous diversity of potential subgroups and their differential relevance for specific dependent variables makes it difficult, if not impossible, to predict a priori precisely where and when mainstreaming will occur” (p. 73). However, it seems reasonable to assume that mainstreaming would be observed among subgroups whose responses to the dependent variable differ. Thus, this study also tested the following hypothesis.

H2: Mainstreaming would be observed between demographic or psychographic subgroups when their attitudes toward gender roles differed across subgroups.

Method

Procedures
To test these hypotheses, a sampling survey was conducted in November 2005; 1,000 Tokyo residents aged 20–69 years were randomly selected from a Tokyo poll-book listing all electorates at least 20 years old. Each was sent a questionnaire by mail; the response rate was 44.1% (417 returned questionnaires), excluding 55 questionnaires that were undeliverable due to unknown addresses.

Some scholars might be troubled by the use of a mail survey in cultivation research, partly because the researcher cannot control who is actually answering the questions. Based on an extensive review of relevant literature and his own studies, Hayashi (2004), an expert on mail surveys in Japan, views this survey method favorably. According to Hayashi’s experimental studies (2004), the percentage of questionnaires answered by a person other than the intended respondent is negligibly low (at least in Japan). Although other survey methods such as interview methods are usually preferred by researchers, Hayashi has noted that mail surveys are nevertheless useful and defensible if they are carefully conducted.

Characteristics of the sample
Of the respondents, 50.1% were male and 49.9% were female. Respondents ranged in age from 20 to 69 (M = 46.4, SD = 13.2): 12.3% were 20–29 years old, 21.3% were 30–39, 23.2% were 40–49, 23.7% were 50–59, and 19.6% were 60 or over. In total, 6.5% of respondents were junior high school graduates, 29.6% were senior high
school graduates, 23.1% had graduated from junior college (or equivalent), 36.5% were college students or graduates, and 3.4% had attended graduate school (0.2% were categorized as other). Census data revealed that 51% of the general population was male and 49% was female, indicating that the sample group represented the population with regard to gender. With regard to the age groups in the sample, individuals in their 20s were underrepresented (24.3% in the general population), and other categories were slightly overrepresented (in the general population, 21.8% were in their 30s, 17.3% were in their 40s, 20.6% were in their 50s, and 16.0% were in their 60s). The relatively low response rate from those under 30, however, is a commonly reported phenomenon for public opinion surveys conducted in Tokyo.

Measures

Gender-role attitudes
This study measured attitudes regarding gender roles using part of the Scale of Egalitarian Sex Role Attitudes (SESRA); Suzuki developed this scale to measure a Japanese person’s degree of egalitarianism in his or her attitudes to gender roles (A. Suzuki, 1991a, 1991b, 1997). The original SESRA was composed of forty 5-point Likert-type items, with response categories ranging from 1 (strongly disagree) to 5 (strongly agree). The SESRA has four role-category domains: (a) marital domain (attitudes toward marriage and matrimonial life), (b) parental domain (attitudes toward having a child/children, children’s education, and child rearing), (c) vocational domain (attitudes toward women’s employment), and (d) social domain (attitudes toward general egalitarian values in society). For the sake of convenience, this study used only 15 of the 40 items in the SESRA, focusing in particular on items from the vocational and social domains. Because the survey used in this study was distributed by mail, the number of items used was reduced. For example, one item in the vocational domain read “whether married or not, for purposes of independence, women should work.” For this item, higher scores indicate a more egalitarian attitude to sex roles and “3” indicates a neutral attitude. Some of the questions used in this study used nonegalitarian descriptions, and the scoring was correspondingly reversed.

Political orientation
Respondents were asked to indicate their self-designated political orientation using a 5-point scale ranging from 1 (conservative) to 5 (liberal). This variable was included because social psychological research has consistently emphasized that “attitudes may have a hierarchical structure that allows more concrete and specific attitudes to be derived from more abstract and general attitudes … [and specific attitudes may be] … organized around a dominant social theme such as liberalism and conservatism” (Eagly & Chaiken, 1998, p. 284). Thus, respondents with a conservative political ideology are likely to, consciously or unconsciously, develop a conservative position on a specific issue, in this case, gender roles. For this reason, to identify relationships between television viewing and attitudes concerning gender roles, one must first control for political orientation.
Television viewing
The amount of total television viewing was measured by asking respondents to indicate how much time they usually spent watching television per day ($M = 184.59$ minutes, $SD = 116.68$). Although the measure of television viewing was continuous, and mainly used as such, some analyses also required that respondents be categorized as “light,” “medium,” and “heavy” viewers. In this study, respondents whose scores fell within 1 standard deviation above or below the mean (120–240 minutes) were categorized as medium viewers. Those with scores more than 1 standard deviation below the mean (0–105 minutes) were categorized as light viewers, and those with scores more than 1 standard deviation above the mean (270 minutes or more) were categorized as heavy viewers. This study also measured the amount of television news viewing by asking how much time the respondents usually spent watching television news per day ($M = 67.44$, $SD = 45.25$). By subtracting the amount of television news viewing from the amount of total viewing, I computed the amount of television viewing excluding news programs for each respondent. However, there was a very strong correlation between the amount of total television viewing and the amount of television viewing excluding news programs ($r = .91$, $p = .000$), and thus the results of analyses reported here are based on the amount of total viewing.$^3$

Rationale for using the message system-level measure
According to Gerbner et al. (1986), the world of television on which cultivation theory should be based is that of “the most general system of messages, images, and values that underlie and cut across the widest variety of programs” (p. 21). Gerbner and his colleagues maintained that overall viewing is an important theoretical construct and an empirical measure, and that idiosyncratic viewing patterns are less relevant. As mentioned above, some researchers have asserted that the genre-level measure is more appropriate than the message system-level measure when testing cultivation hypotheses. Although their arguments may be true for some cases depending upon aspects of conceptions of social reality, the use of the message system-level measure (i.e., the amount of total television viewing) is more appropriate in this study for the following reasons. First, as summarized above, overall images of women and men on Japanese television, whether in dramas, commercials, or news programs, are still rather traditional. This means that the message system in relation to gender representation on Japanese television continues to be conventional. In addition, there seems to be no useful way other than the total amount of television viewing to detect the impact of television commercials because of their ubiquitous nature; stereotypical gender depictions have been most clearly and most frequently demonstrated in commercials.

Results
First, a factor analysis was conducted on the 15 items concerning attitudes about egalitarian gender roles. Results indicated that 14 items had high factor loadings for
Factor 1, and one had a low factor loading (.204). After excluding the item with a low factor loading, the remaining 14 items were combined into a single scale (hereafter termed the “egalitarian gender-role attitudes scale”). Cronbach’s alpha coefficient for the scale was .88. Each respondent’s total score for the 14 items was divided by 14 to yield his/her item average score. Respondents with a mean score of more than 3 were considered to have an egalitarian attitude toward gender roles, whereas those scoring under 3 were considered to have traditional attitudes, and those scoring 3 were considered to have a neutral (neither egalitarian nor traditional) attitude. The following analyses used the item average score.

Past research has indicated that gender, age, educational level, and work experience are associated with attitudes to gender roles (A. Suzuki, 1991a). Therefore, analysis began with an examination of whether significant differences appeared among scores for egalitarian attitudes regarding gender roles with respect to respondents’ gender, age, educational level, or occupational status, as well as in relation to their political orientation and level of television viewing. For convenience, when examining occupational status, scale scores were compared between full-time workers (coded 1) and non-full-time workers (including part-time workers, students, and unemployed respondents) (coded 0).

As shown in Table 1, female respondents produced significantly higher scores than male respondents ($M = 3.86, SD = 0.59$ for females and $M = 3.73, SD = 0.60$ for males; $t = -2.20, df = 396, p = .029$), indicating that females had more egalitarian attitudes with regard to gender roles. The data also indicate that respondents with higher educational levels were more likely to have egalitarian attitudes regarding gender roles ($r = .182, p = .000$), as were political liberals ($r = .260, p < .001$). However, no significant relationships appeared between the scale score and age or occupational status. Based on the results of this preliminary analysis, I decided to use gender, education, and political orientation as contingent variables in testing the mainstreaming hypothesis.

The total amount of viewing was negatively correlated with the scale score ($r = -0.153, p = .002$), indicating that heavier viewers had more traditional gender-role attitudes. This bivariate relationship, however, could be spurious under simultaneous controls of third variables. Therefore, I conducted a hierarchical multiple regression analysis to examine the relative predictive power of television viewing on attitudes concerning gender roles. First, I conducted a regression analysis for all the respondents. Predictor variables included age, level of education, occupational status, self-designated political orientation, and total amount of television viewing. Dependent variables were scores on the egalitarian gender-role attitude scale. Because past research has indicated that age, educational level, and work experience were related to attitudes to gender roles, these demographic variables were first entered into the regression equation. In the second step, self-designated political orientation and level of television viewing were added. Next, I conducted additional multiple regression analyses for each of the gender, educational, and political orientation subgroups, separately.
Table 2 summarizes the results of hierarchical multiple regression analyses. The results indicate that gender (β = 2.184, p = .000), education (β = .164, p = .001), and political orientation (β = .248, p = .000) were statistically significant predictor variables for the scale scores: females, respondents who considered themselves liberal, and respondents with higher educational levels were more likely to have egalitarian attitudes to gender roles. Total television viewing was nearly (or marginally) significant (β = 2.094, p = .070), which means that heavier viewers held slightly more traditional gender-role attitudes.

Multiple regression analyses within subgroups revealed that the cultivation relationship held true for some subgroups but not for others. Among male respondents, the total amount of viewing did not show a significant relationship with the egalitarian gender-role attitude scale score. In contrast, female respondents exhibited different patterns. The total amount of television viewed was negatively related to the scale score (β = −3.02, p = .003), indicating that women with heavier viewing patterns were more likely to have traditional attitudes with regard to gender roles. When the educational level was used as a contingent variable, only the highly educated group showed a significant relationship between the scale score and the amount of viewing (β = −2.13, p = .003). When political orientation was used as a contingent variable, similar negative associations were found among politically moderate (β = −.264, p = .003) and liberal respondents (β = −.139, p = .112), but only the moderates showed a statistically significant relationship. In contrast,
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\( \dagger p < .10. \ast p < .05. \ast\ast p < .01. \ast\ast\ast p < .001. \)
politically conservative respondents showed a positive relationship ($\beta = .210$, $p = .052$), indicating that heavy viewing tended to cultivate less traditional gender-role attitudes.

The analyses so far used the total amount of viewing which is the linear solution. After Potter (1991, 1994), however, this study also used various transformations of the viewing measure (i.e., total viewing squared, the square root of total viewing, the reciprocal of total viewing, and the log of total viewing) to examine whether any of these transformations would be a better predictor. Table 3 summarizes the results, showing both simple correlation coefficients between each of the lines and the scale scores (upper row) and beta coefficients in the multiple regression using the same independent and dependent variables as the analyses above (lower row). The results indicate that none of the transformation lines seems to explain the cultivation relationships better than do the other transformation lines. Furthermore, I also transformed the dependent variable $y$ (i.e., the scale score of the gender-role attitude) in the same way as the total viewing (i.e., $y^2$, $\sqrt{y}$, log $y$, $-1/y$) and, using these transformations, I conducted the same analyses because transformations of the dependent variable could also help linearize the data if the relationship were non-linear. The analyses, however, produced results that were very similar to those reported in Table 3.

Next, I examined whether demographic subgroups exhibited mainstreaming. With regard to gender, a clear difference in the scale scores of women and men was observed for light viewers, but this difference lessened among medium and heavy viewers. To confirm that this mainstreaming pattern would hold true even after controlling for relevant third variables, partial correlations between sex and scores on the egalitarian gender-role attitude scale were computed separately for light, medium, and heavy viewers. Control variables included age, level of education, occupational status, and self-designated political orientation. Partial correlation analyses revealed that the fourth-order partial correlations were .287 ($p = .009$) for light viewers, .172 ($p = .012$) for medium viewers, and .010 ($p = .935$) for heavy viewers. These results appear to support the mainstreaming hypothesis.

By contrast, a comparison of the responses between the highly educated and less educated respondents produced a somewhat confusing result. In terms of the mean score of the egalitarian gender-role attitudes scale, the highly educated and less educated are closer to each other among medium and heavy viewers than among light viewers: therefore, the result seems to indicate mainstreaming. However, the responses of the highly educated and less educated are reversed in the case of medium and heavy viewers: the mean score of the highly educated ($M = 3.87$) was higher than that of the less educated ($M = 3.71$) among the medium viewers, but the pattern was reversed among the heavy viewers ($M = 3.57$ for the highly educated and $M = 3.72$ for the less educated). As for self-designated political orientation, an examination of the responses among political conservatives, moderates, and liberals showed a similar perplexing pattern: the result did not indicate a pattern indicative of the mainstreaming phenomenon.

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S. Saito

TV and the Cultivation of Gender-Role Attitudes

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<td>No College</td>
</tr>
<tr>
<td>Total TV viewing</td>
<td>-.153**</td>
<td>-.256***</td>
<td>.023</td>
<td>-.091</td>
</tr>
<tr>
<td></td>
<td>-.094†</td>
<td>-.182*</td>
<td>-.009</td>
<td>.018</td>
</tr>
<tr>
<td>Total viewing squared</td>
<td>-.148**</td>
<td>-.214**</td>
<td>-.103</td>
<td>-.003</td>
</tr>
<tr>
<td></td>
<td>-.090†</td>
<td>-.148*</td>
<td>-.030</td>
<td>-.004</td>
</tr>
<tr>
<td>The square root of total viewing</td>
<td>-.157**</td>
<td>-.258***</td>
<td>-.078</td>
<td>.017</td>
</tr>
<tr>
<td></td>
<td>-.101†</td>
<td>-.182*</td>
<td>.005</td>
<td>.013</td>
</tr>
<tr>
<td>Reciprocal of total viewing</td>
<td>-.173*</td>
<td>-.216**</td>
<td>-.154*</td>
<td>.051</td>
</tr>
<tr>
<td></td>
<td>-.123*</td>
<td>-.176*</td>
<td>-.070</td>
<td>.036</td>
</tr>
<tr>
<td>Log of total viewing</td>
<td>-.166**</td>
<td>-.241**</td>
<td>-.125†</td>
<td>.073</td>
</tr>
<tr>
<td></td>
<td>-.104†</td>
<td>-.183*</td>
<td>-.034</td>
<td>.060</td>
</tr>
</tbody>
</table>

Note: Upper row = simple correlation coefficients; lower row = beta coefficients in the multiple regression analyses.

†p < .10. *p < .05. **p < .01. ***p < .001.
With regard to the mainstreaming pattern observed between men and women, a further in-depth analysis disclosed that there may not be a simple answer in this instance; this mainstreaming pattern could be spurious (note that considering the relatively small numbers of respondents in each subgroup, which ranged from 44 to 81, the results reported below should be interpreted cautiously). Because political orientation had a significant relationship to attitudes regarding gender roles for both female and male respondents, I also conducted separate partial correlation analyses for liberal, neutral, and conservative female and male respondents. The data show that among neutral and liberal females, television viewing was negatively related to egalitarian gender-role attitude scale scores (third-order partial $r$ was $-.249, p = .028$ among neutral females and $-.325, p = .009$ among liberal females). Similarly, politically neutral male respondents exhibited a negative correlation between television viewing and gender-role attitude scale scores (third-order partial $r$ was $-.267, p = .030$). In contrast, television viewing was positively associated with egalitarian attitudes concerning gender roles among male conservatives (third-order partial $r$ was $.315, p = .032$), suggesting that television may “liberate” the most conservative viewers. Among conservative females and liberal males, no significant relationship appeared between television viewing and attitudes regarding gender roles.

**Discussion**

The results of this study reveal that the direction and magnitude of cultivation relationships varied across different subgroups. Even after controlling for several relevant variables, television viewing was related to more traditional attitudes regarding gender roles among many respondents (i.e., females, highly educated respondents, or political moderates). The general cultivation hypothesis was therefore supported in these subgroups. The cultivation relationships were, however, not found among male respondents and those with less education. More interestingly, among the political conservatives, heavy viewing was associated with more egalitarian attitudes concerning gender roles. The additional analysis revealed that such a relationship held true for only male conservatives. In this way, television seems to liberate the most conservative group. Similar findings have been reported elsewhere (Signorielli, 1989). The question is how we should explain these seemingly inconsistent patterns?

In fact, such nonmonotonic associations across subgroups have often been reported in the cultivation literature. Note that “nonmonotonic and nonlinear are *not* the same, but they are often conflated” (Shanahan & Morgan, 1999, p. 79). To explain nonmonotonic associations across subgroups, Gerbner and his associates have argued that cultivation is a gravitational, rather than a unidirectional process (e.g., Gerbner et al., 1986, 2002). They contend that “The angle and direction of the ‘pull’ depends on where groups of viewers and their styles of life are in reference to
the center of gravity, the ‘mainstream’ of the world of television” (1986, p. 24). Following their logic, the results in this study could be interpreted as follows. Females or those with higher educational levels who tend to hold egalitarian gender-role attitudes are out of sync with the cultural mainstream, and thus they are more likely to be cultivated toward the mainstream of the television world, which is traditional. In their case, cultivation proceeds toward conservative positions. Similarly, male conservatives, who hold the most traditional attitudes concerning gender roles, are also out of sync with the cultural mainstream. But, in their case, the direction of the “pull” (i.e., the influence of television) works toward more liberal positions. One possible explanation for this “liberating” effect might be that male conservatives hold very traditional attitudes to the extent that even television’s unequal depictions of men and women are less traditional by contrast, so that heavy viewing serves to bring them into the mainstream of the comparatively less traditional TV world. In other words, those who are more conservative than the conservative mainstream of the television world are cultivated toward more “liberal” views.

Following Gerbner et al.’s logic, it can be argued that the amount of television viewing did not show significant correlations to attitudes toward gender roles among respondents whose attitudes were congruent (or consonant) with the mainstream of the television world. The fact that no significant correlation was found among these groups, however, does not necessarily mean that television had no impact on them. Television might function as a reinforcing agent for their attitudes regarding gender roles.

Although these interpretations seem to explain much of the findings in this study, there remain some unresolved issues. Most importantly, if Gerbner and his associates’ logic worked perfectly, then mainstreaming patterns should have been found. The results, however, produced mostly unsupportive evidence in relation to the mainstreaming hypothesis; the patterns of interaction found in this study are more complicated. Although this study’s initial analysis suggested that mainstreaming occurs between female and male respondents, a further in-depth analysis questioned the conclusion that a mainstreaming pattern exists. As shown in this study, the traditional method that shows scatter plots of a two-way interaction between television viewing and a demographic variable, such as gender or education, even coupled with a multivariate analysis, may not be sufficient to demonstrate the mainstreaming effect. The results of this study indicate that even when a mainstreaming pattern was observed between television viewing and gender, introducing another variable (in this case, political orientation) into the analysis and looking at the three-way interaction revealed a very complicated pattern. The results of this study, therefore, suggest the need for more sophisticated methods for testing mainstreaming hypotheses more accurately.

The concept of mainstreaming was introduced in the course of refining the original formulation, in order to explain subgroup variations in cultivation patterns. The mainstreaming hypothesis is interesting and presumably indispensable to cultivation theory. As noted by Potter (1993), however, when the concept was first
applied by its original theorists, it was “applied in an ad hoc manner to data patterns that do not conform to the overall cultivation effect … [and was] … used inconsistently or in partial ways” (p. 587). Cultivation researchers need to do more work if the mainstreaming hypothesis is to become a more useful explanatory concept, allowing researchers to predict more precisely the conditions under which mainstreaming might occur.

Given that this study was based on cross-sectional data, a causal relationship cannot be established. In fact, causality is an issue that is frequently addressed in cultivation studies. In their extensive review of cultivation studies, Hawkins and Pingree (1982) concluded that “the relationship between viewing and social reality may be reciprocal. Television viewing causes a social reality to be constructed in a certain way, but this construction of social reality may also direct viewing behavior” (p. 239). Although Gerbner and his associates acknowledged the possibility of causal relationships in both directions, they placed more emphasis on the other causal direction, in which television contributes to viewers’ constructions of social reality; that is, television’s influence is a “primal cause” (Rosenberg, 1968, p. 9). Concerning the causal relationship, Shrum has conducted serial experimental studies (e.g., Shrum, 1995, 1996, 1999, 2007) that have provided sophisticated explanations for the underlying psychological mechanisms of cultivation effects. His studies have shed light on the problem of causal relationships in this regard. Well-established explanations of the psychological mechanisms underlying cultivation effects could provide indirect support for the causal relations of the results reported here.

In this study, I also addressed the issue of possible nonlinear cultivation relationships in the hope of identifying stronger associations with the transformation lines than the linear solution. The results, however, show no convincing evidence that the relationships in the data used in this study are nonlinear. None of the transformation lines can better explain the relationships than total viewing. As Potter (1994) pointed out, more complicated lines, such as an S-curve or a sine wave, might explain the cultivation relationships better. An examination of such advanced tests of nonlinearity is beyond the scope and focus of this paper, but future research should pursue such possibilities.

In summary, this study has shown that, at least with regard to attitudes toward gender roles, television tends to decelerate social change by cultivating traditional views among many viewers, although the medium also seems to liberate the most conservative people. Ironically, women, who would seem the most likely to take the initiative in altering the current situation (often characterized as a masculine cultural hegemony), appear to support the status quo. This does not mean that television functions exclusively to maintain the status quo; on the contrary, many of the societal changes that have occurred in Japan following the introduction of television would not have taken place without this medium. However, cultivation theorists have claimed that ideological social control is still the most significant (but often ignored) function of television. We should continue to investigate television’s possible (unintentional) influence in decelerating social change.
Acknowledgments

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Notes

1 Data from public opinion surveys conducted by NHK every fifth year since 1973 reveal a steady increase in Japanese awareness of gender equality. For example, when asked whether women should continue working after marriage, the percentage of individuals who responded that “it would be better for women to devote themselves to taking care of running their homes” has consistently declined: 35.2% in 1973, 28.6% in 1983, 18.3% in 1993, and 12.6% in 2003. In contrast, the percentage of individuals who responded that “if possible, it would be better for women to continue their job even after having a child or children” has steadily increased: 20.3% in 1973, 29.3% in 1983, 37.1% in 1993, and 48.5% in 2003.

2 To justify the small effect sizes, they used the metaphor of climate change, namely, that a shift of even a few degrees in average temperature can cause significant climate change such as an ice age or global warming. Thus, small effects should not be ignored (Gerbner et al., 1986, 2002).

3 As expected, the analyses using the amount of television viewing excluding news programs produced results similar to those reported in this article.

4 First, I examined scatter plots of the data, but it was difficult to determine whether the relationships were linear or curvilinear and which transformation would be the best. Thus, I used the four most typical methods of transformation, which were also used by Potter (1991).

5 Potter (1994) pointed out that “the moving of cut points can have the effect of changing the results” (p. 7). Therefore, this study used another cut point, the closest approximation of an even three-way split, which was commonly used by Gerbner et al. to examine whether different cut points would alter the results. However, the even three-way split showed basically the same plotting pattern as that by the split based on the standard deviation.

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La télévision et la culture des attitudes quant aux rôles assignés à chacun des sexes au Japon.

La télévision contribue-t-elle au maintien du statu quo?

Shinichi Saito
Tokyo Woman’s Christian University

Résumé

Cette étude cherche à savoir si l’écoute de la télévision cultive des attitudes traditionnelles quant aux rôles assignés à chacun des sexes et contribue au maintien du statu quo. Les données recueillies lors d’un sondage effectué à Tokyo révèlent que la direction et l’ampleur des relations de culture varient selon différents sous-groupes. Les résultats donnent à penser que la télévision a tendance à ralentir les changements sociaux en cultivant des vues traditionnelles chez plusieurs spectateurs (notamment chez les femmes), mais qu’elle peut « libérer » les spectateurs les plus conservateurs. Les résultats ont également produit une preuve généralement non à l’appui de l’hypothèse d’intégration (« mainstreaming hypothesis »); les modèles d’interaction ayant émergé de cette étude sont plus compliqués. Cet article discute les conséquences théoriques et méthodologiques de ces résultats.
Fernsehen und die Kultivierung von Einstellungen zu Geschlechterrollen in Japan: Trägt das Fernsehen zur Wahrung des Status Quo bei?

La Televisión y la Cultivación de Actitudes de Género y Rol en Japón:
¿Contribuye la Televisión a Mantener el Status Quo?
Shinichi Saito
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Resumen
Este estudio examina si la exposición a la televisión cultiva actitudes tradicionales de género y rol y si contribuye al mantenimiento del status quo. Datos de una muestra de encuesta conducida en Tokio revela que la dirección y magnitud de la cultivación varía a través de diferentes subgrupos. Los resultados sugieren que la televisión tiende a desacelerar el cambio social mediante la cultivación de opiniones tradicionales entre muchos televidentes (especialmente mujeres), pero puede “liberar” a los televidentes más conservadores. Los resultados también produjeron evidencia no respaldada en relación con la hipótesis de la corriente dominante (mainstreaming); las pautas de interacción encontradas en este estudio fueron más complejas. Este artículo discute las implicaciones teóricas y metodológicas de estos hallazgos.
电视与日本性别角色态度的涵化：电视是否影响现状的维持？

Schinichi Saito
东京女子基督教大学

本研究检测观看电视对传统性别角色态度的涵化和现状维护的影响。在东京进行的抽样调查结果表明：涵化关系的方向及强度在不同的次群体之间存在差异。对大多数观众（特别是女性）而言，电视通过涵化传统观念使社会变迁的速度减缓，但它可以“解放”最保守的观众。结果基本上不支持涵化的主流假设。本研究显示的交互形式比较复杂。我们探讨了这些结果理论及方法上的涵义。
일본에서의 텔레비전과 젠더-역할 태도의 배양효과에 관한 연구: 텔레비전은 현재 상태의 유지에 공헌을 하는가?
Shinichi Saito
Tokyo Woman’s Christian University

요약
본 논문은 텔레비전시청이 전통적인 젠더-역할태도를 배양하는지, 그리고 현재 상태의 유지에 공헌하는지 여부를 연구하기 위한 것이다. 토쿄에서 단행된 샘플링 서베이로부터 추출한 데이터들은 배양효과관계의 방향과 정도는 다양한 하부구조에 따라 다르다는 것을 보여주고 있다. 이 연구결과는 텔레비전은 많은 시청자들(특히 여성 시청자들) 사이에서 전통적인 견해를 배양하는 데에 의해 사회적 변화를 늦추려는 경향이 있음을 보여주고 있다. 그러나 이는 또 대다수의 보수적인 시청자들, 또는 진보적으로 변화시킬 수 있음을 보여주는 것이기도 하다. 연구 결과들은 또 주요한 가설들에 대하여 비 지지적인 증거들을 나타낸 바, 이 연구에 발전된 상호작용의 형태는 보다 복잡한 것이었다. 본 논문은 이러한 발견들의 이론적 그리고 방법론적인 함의들을 토론하였다.