The situational and time-varying context of routines in television viewing: An event history analysis

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Abstract

Building on an action theoretical perspective, it is assumed that most television viewing is a routine response to frequently occurring situations, which together make up everyday life. This interplay between television viewing and everyday life was studied using data from a national survey among Dutch adults (n = 825) and their families. From this survey, data of 225 couples were analyzed using event history analysis. Results indicate that one cannot see television viewing as merely an alternative for other activities. For instance, participatory activities have two distinct effects: They tend to inhibit television viewing by the actor but stimulate television viewing by the actor's partner. The effect of contacts with other variables appears to be important as well: Being at home, engagement in child care, household work, and eating and drinking often enhances television viewing. But presence of non-family may inhibit television viewing. Education was shown to have a consistently negative impact on television viewing, and there appeared to be some gender specific inducements for termination of television viewing.

Keywords: television viewing, everyday life, event history analysis, action theoretical perspective

Introduction

During the last sixty years, there has been a clear trend in the development of theories on the subject of the social embeddedness of media use. At first, media use was seen as a process that only two groups of participants were involved in: Suppliers of information (or 'senders') and the general public. It was assumed that both senders and the general public had clearly defined and distinct roles. Senders would define what news was 'fit to print' – or what would be aired. On the other hand, the

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aggregate of receivers was assumed to be willing and capable of consuming these messages and to react by displaying behaviors as intended by the sender. In a word, the concept of the audience was that it was rather passive. The intentions of the sender and the transmission of messages were seen as decisive factors in the creation of audience behavior.

However, soon after empirical and theoretical research started, criticisms of these initial ideas were voiced and theory was revised. First, it was argued that not all individual audience members were capable of receiving and understanding all media messages that were aimed at them (Hyman and Sheatsley, 1947). Therefore it was recognized that some audience segments were not reached − but this was seen as a defect of these segments. Subsequently, this idea of defectiveness was replaced by a less derogatory conceptualization of audience activity: It was assumed that primary groups, interpersonal communication, and opinion leaders played a role in processes of message diffusion and reception (Katz and Lazarsfeld, 1955; Klapper, 1960). Finally, researchers and theorists recognized that the reception of mediated messages was not governed by intentions of senders only, but by the intentions of the audience as well. In fact, it was assumed that the audience used the media for its own purposes (Bauer, 1964; Barnlund, 1970).

As a consequence of this theoretical development, a new standard was developed for studying the audience: The uses and gratifications approach of media use. Researchers within this approach tended to portray the audience as goal-directed and intention-driven. They assumed that audience members use media to gratify felt needs; that the media compete with other sources of need satisfaction; that people "are sufficiently self-aware to be able to report their interests and motives for media use," and that value judgments should not interfere with "the exploration of audience orientations in their own terms" (cf. Katz, Blumler, and Gurevitch, 1974: 21−22).

Of course, this approach met with criticism as well. Part of this criticism came from researchers investigating audience duplication research. This research tradition is primarily known for its contention that if two programs are consecutively aired on the same channel, they usually tend to have largely the same audience, even if the content of these programs is different. According to duplication research, this phenomenon is so strong that it leaves little room for active, goal-oriented program choice. "Programming and scheduling are considered important characteristics that might (…) produce certain behaviors" (Cooper, 1996: 97).

Over the years, there has been some convergence between the insights of gratification research and duplication research (e. g., Webster and Wakshlag, 1983). Among duplication researchers it has become accepted that personal factors (e. g., 'audience availability') play a role in program

choice, that the inheritance effect is weakened if many programs are available simultaneously, and that the size of the audience that a program inherits from its predecessor is greater if that predecessor is of the same genre. On the other hand, gratification research started to pay more attention to habit formation and routinization (e. g., Rubin, 1984). Additionally, it increasingly focused on gratifying aspects of viewing itself ('process gratifications') instead of focusing only on the gratifying aspects of media content ('content gratifications'; see Jeffres, 1978; Wenner, 1985).

Theory

Today, theoretical and methodological differences between audience duplication research and Uses and Gratifications still persist. In duplication research, program exposure is seen as an attribute of programs, and programs are treated as units of analysis. In gratifications research, watching a program is seen as an attribute of viewers, and individual viewers are treated as units of analysis. These differing approaches of program exposure are, however, not necessarily mutually exclusive. They can be reconciled by using the concept of routinization as employed by the Media use As Social Action approach (or MASA; see Bosman et al, 2001; Renckstorf, 1996; Renckstorf and Wester, 2001). It is the objective of this study to examine the usefulness of some assumptions of this approach by means of an empirical examination of television viewing in the Netherlands.

According to the MASA approach, all human action can be seen as guided by intentionality, i. e., by the fact that people try to master the situation they are part of. Additionally, it assumes that there are two different pathways towards action. The first pathway is followed in case an individual faces a situation for which s/he has not developed a routine response. In that case s/he will first have to become aware of the lack of routine responses, work out one or more solutions, make decisions on what solution to implement, before, eventually, external action can take place. Thus, the first pathway towards external action is a rather long and laborious one. The second pathway is much shorter. In case an individual faces a situation s/he has dealt with before, s/he will attach prereflexive meaning to that experience and carry out some everyday routine to handle this experience. This second pathway is utilized much more frequently than the first one; it is the normal procedure for everyday action (Renckstorf, 1996; Zijderveld, 1974).

According to the MASA approach, most actions are routine responses to frequently recurring, subjectively defined situations. As television viewing is seen as only one mode of human action among many, it is

assumed that most occurrences of television viewing are explained as routine responses to frequently recurring situations as well. In this study, we will therefore establish the usefulness of the MASA approach by explaining television viewing as a response to such situations, which are thought to be linked with at least three different aspects of everyday life.

First, we will study television viewing as a response to the dynamics of everyday life. According to the MASA approach, actions are not to be thought of as emanating from a fixed, abstract, and constant personality structure. Instead, it assumes that actions are to be seen as subjectively defined responses to subjectively defined problems, which can vary from situation to situation, and from time to time. We will therefore investigate how television viewing correlates with dynamic aspects of everyday life, such as time of day, being at home versus elsewhere, and activities performed by the individual. In doing so, we also hope to contribute to a debate within communication science about how television viewing fits in with the rest of leisure.

We will, on the one hand, test the ideas of researchers and theorists who conceive of television viewing as an activity that is incompatible with the performance of other conduct. Consequently, they blame television for an alleged demise of person-to-person contact in western societies during the last fifty years (Jonscher, 1995; Putnam, 1995). On the other hand, there are scholars who posit that television viewing and other activities are intertwined, and may even strengthen each other. One of the proponents of this idea is Rothenbuhler (1985). According to him, the combination of watching television, eating, and drinking can sometimes be seen as a ritual for celebrating shared interests and values within a circle of family and friends. And following Lull (1988), television is a facilitator of social contact within the family; "The activated television set guarantees its users a nonstop backdrop of verbal communication against which they can construct their interpersonal exchanges" (202).

A second aspect of everyday life that may have an impact on television viewing is that of co-presence, co-action, and more specifically co-viewing. As Lull (1988) argues, television viewing can be seen as a routine mode of family conduct that may confirm the family as a unit of interdependent personalities. Consequently, it is not to be seen as an individual activity only. Therefore, one should not predict television viewing only on the basis of individual characteristics, but include variables indicative of other aspects of the social context as well. In recent research, this idea has received considerable support. Research by Huysmans (2001) clearly indicates that partners substantially influence each other's viewing behaviors. Additionally, as research by Konig, Kraaykamp, and Westerik (2003) shows, the media budgets of partners are closely related. Yet,

there is still much to explore concerning the interplay between household members. Past research tends to be focused on the effects of co-viewing; it might be of interest to see what the effects are of broadening the scope from co-viewing to co-action.

A third and final aspect of everyday life that we will take into account is that of how television relates to the social and demographic statuses of individuals. On the basis of the MASA approach, it seems reasonable that these statuses are likely to have an influence on television viewing. The reason for this is that these statuses are linked to the occurrence of everyday problems and the availability of solutions, which in turn may have a bearing on how television is used to cope with this problem. For instance, in most societies women tend to take on more responsibilities for children and household work than men, and western societies are no exception to this rule (cf. Campbell and Lee, 1992; Van der Lippe, 1992). This unequal distribution of responsibilities may have several and sometimes contradictory consequences for television viewing. For instance, one might assume that women are at home more and are therefore able to start watching earlier, but one might also argue that the responsibilities felt by women are incompatible with sustained episodes of viewing, and that women will therefore be reluctant to start or to continue watching television.

Research findings with respect to the consequences of gender for television viewing are often confusing. Several studies indicate that men watch more television than women do, but an equal number of studies indicates the opposite. Recently, Konig, Kraaykamp, and Westerik (2003) argue that in the Netherlands gender differences in television viewing are largely something of the past. They did, however, not investigate the way in which gender has a moderating effect on other variables. This is a considerable limitation, because doubts have been raised about the degree to which factors used for explaining television viewing are equally relevant for men and women (Huysmans, 2001). For instance, men may see home as a place of leisure, whereas many women may see home as work, according to Morley (1986). Consequently, one might expect that the effect of being at home on television viewing will be stronger for men than for women.

The relationship between television viewing and education is somewhat less controversial. Television viewing is usually negatively correlated with education. A reason for this may be that it is seen as being incompatible with being a member of the higher educated, cultural elite (Bourdieu, 1984; Ganzeboom, 1988). Another explanation may be that the higher educated have less leisure time (Van de Broek, Knulst, and Breedveld, 1999).

The effects of age on television viewing is less clear. In adulthood, television viewing appears to increase with age (Dimmick, 1979). However, some studies report a strong positive correlation between television exposure and age, and other studies only a weak one (Frissen, 1992). The reason behind these positive correlations are, however, unclear. It may be that for older adults the time pressures related to raising children and getting settled in a career subside (Wilensky, 1960), and that this in turn increases television viewing time. But it may also be that people increasingly use television as a substitute for more active ways of social participation (Graney and Graney, 1974).

The abovementioned four theoretical concerns have led us to formulate the following research questions:

- First, to shed some light on the question of how the use of television is linked to the performance of other behaviors, we will investigate whether the performance of these other activities has an influence on watching television.
- Second, following our interest in the social influences on television viewing, we will look at how household members influence each other's television viewing, paying special attention to the role of partners. Key research questions in this context are: What influence does being at home have on television viewing? What influence does the co-presence of others have on television viewing? What influence does household size have? And to examine the role of partners, we will seek an answer to the question what mutual influence partners have on each other's viewing behaviors.
- Third, because our aim is to study the link between television viewing and its situational context we will employ event history analysis to analyze television viewing. This type of analysis will enable us to look for answers to the following questions: How are initiation and termination of television viewing influenced by time-functional and time-varying variables?
- Fourth, and finally, we will look at how gender, age, and education affect television viewing.
- Do gender, age, and educational level influence television viewing? Is this a direct, unmediated influence? And are the factors that explain television viewing equally relevant for men and women?

Methods

Sampling

In order to address the above-formulated research questions, a national representative probability survey was used, held in the Netherlands dur-

Table 1. *Representativeness of the primary NiCoR-sample: Sample and population data on distribution by gender and age for couples sharing the same address.*

Sample distribution				Official government estimates*			
	male	female	Total		male	female	total
15−29	0.03	0.04	0.05	15−29	0.05	0.07	0.11
30−34	0.05	0.07	0.10	30−34	0.06	0.06	0.12
35−39	0.06	0.07	0.13	35−39	0.06	0.06	0.13
40−44	0.08	0.08	0.14	40−44	0.06	0.06	0.12
45−49	0.07	0.08	0.15	45−49	0.06	0.05	0.11
50−54	0.06	0.05	0.13	50−54	0.06	0.05	0.11
55−59	0.05	0.05	0.08	55−59	0.04	0.04	0.08
60−64	0.05	0.03	0.08	60−64	0.04	0.03	0.07
65−69	0.03	0.02	0.07	65−69	0.03	0.03	0.06
70−74	0.02	0.02	0.05	70−74	0.02	0.02	0.04
75+	0.01	0.00	0.02	75+	0.03	0.02	0.04
Total	0.50	0.50	1.00	Total	0.50	0.50	1.00
N	217	215	432				8.196.032

Note. Goodness of fit test gender by age of sample vs. population estimate: Chi-square = 34.5; df = 21, p = .0316. For 30+ only: Chi-square = 26.2; df = 19, p = .125. Source Government statistics: CBS/Statistics Netherlands 2000.

ing the first three months of 2000 by the Nijmegen Institute of Communication Research. This study consisted of 825 personal interviews with Dutch adults. As a follow-up to these interviews, respondents and their household members aged 10 or older were asked to fill in additional questionnaires and time use diaries. Out of all 825 households, 287 households cooperated fully with this part of the study; out of 121 households, some members did and others did not participate, and of 410 households not a single person participated in the questionnaire and diary part[1].

For this research, we only used data acquired from people who were part of a (heterosexual) couple of whom both partners had returned the time use diary. In total, data from 225 couples (or 450 individuals) could be used. We estimated the representativeness of this subsample by comparing the gender by age profile of this subsample with that of the official population estimate as provided by CBS / Statistics Netherlands (2000). As Table 1 shows, there was a reasonable match between the distributions of gender by age in the sample and the assumed population, with one notable exception: In our sample couples aged thirty and younger were heavily underrepresented. Due to this underrepresentation the sample distribution deviated significantly from what was expected on the basis of government statistics (chi-square = 41.9; df = 21, p = .004). The preceding means that research findings must be interpreted with some caution. Findings cannot be used to predict absolute levels of tele-

vision viewing for heterosexual couples in the Netherlands. This, however, does not interfere with the main purpose of our research, which is to investigate the mechanisms underlying television viewing.

Measurement

Data-gathering. All participants in the time use study were asked to fill out a diary. For every single quarter of the day, they were asked to answer open-ended questions about their time use. For each quarter, respondents could write down their answer in their own words, or indicate that they were doing the same as in the preceding quarter. Additionally, respondents were asked to indicate where and with whom they were during a specific quarter (five subquestions to indicate with whom); whether or not they had watched television or audio (ten subquestions to indicate what channel/medium); whether or not they had listened to radio or audio recordings (six subquestions to indicate type of program/content), and whether or not they had read something (four subquestions about what). Questions about personal characteristics were measured by means of a personal interview (if available) or otherwise by means of a written questionnaire.

Dependent variables. Dependent variables were 'initiation of television viewing' and 'termination of television viewing'. Both variables were based on the respondent's viewing status as it developed throughout the day. This viewing status was established on the basis of responses to both open-ended and closed questions about time use and television viewing. If the respondent did not indicate that s/he did not watch television during the n^{th} quarter, s/he was allotted a '0' score for 'initiation of television viewing' during that quarter. However, if the respondent did in some way indicate that s/he watch television during the n^{th} quarter, s/he was allotted a '1' score for 'initiation of television viewing' during that quarter, provided s/he did not watch television in the preceding quarter. In the latter case, s/he was allotted a 'missing' score for 'initiation of television viewing' during that quarter, meaning that quarter would be left out of any subsequent analysis involving 'initiation of television viewing'.

'Termination of television viewing' was defined as the opposite of 'initiation of television viewing'. So, if a respondent indicated s/he had been watching television during a specific quarter *n*, s/he was allotted a '0' for that quarter − except if s/he had not been watching television during the preceding quarter *n-1*. The first quarter of non-viewing after an episode of viewing was always coded as '1' (termination).

Independent variables. In total, 33 independent variables were defined. These variables can be arranged into three main groups: Six time-functional, four time-constant, and 23 time-varying variables (cf. Yaffee and Austin, 1994). The six time-functional variables were 'time of day'; 'time of day squared'; 'time at risk of initiation'; 'time at risk of initiation squared'; 'time at risk of termination'; and 'time at risk of termination squared'. 'Time of day' was defined as a continuous variable ranging from 1 (= 4:00−4:15 AM) to 96 (= next day 3:45−4:00 AM). The squared value of this variable was also included in analyses to allow for curvilinear effects of this variable. 'Time at risk of initiation' was defined as the number of quarters elapsed since 'termination of television viewing' occurred. 'Time at risk of termination' was defined as the number of quarters elapsed since 'initiation of television viewing' occurred. Note that if a subject is at risk of initiation (i.e., s/he is not watching television) s/he is not at risk of termination vice versa. Hence, in case 'time at risk of initiation' has a valid score, 'time at risk of termination' has a missing score, and the reverse. 'Time at risk of initiation' and its square will be used as predictors of 'initiation of television viewing', and 'time at risk of termination' and its square will be used as predictors of 'termination of television viewing'.

Four of the independent variables were time-constant variables (i.e., for a given individual, scores for all quarters were assumed to be the same). These variables were gender (0 = male, 1 = female); age (ranging from 18 to 79); household size (ranging from 2 to 8 persons), and highest completed level of education (ranging from 1 = no elementary school to 10 = postgraduate degrees).

Finally, there were 23 time-varying variables, all dummy-coded (0 = no, 1 = yes). All these time-varying variables were lagged, so that the scores for the dependent variable for the n^{th} quarter could be predicted on the basis of the score for the independent variable for the $n\text{-}1^{th}$ quarter. Within these time-varying variables, three subgroups of variables can be distinguished. The first subgroup consists of variables indicative of the situations in which the respondent was involved: Being 'at home'; being 'alone'; being 'with kids'; being 'with adult family'; and being 'with non-family'. A second subgroup was indicative of activities undertaken by the respondent: 'Sleeping and personal care'; 'eating and drinking'; 'household work and child care'; 'socializing, hobbies, and indoor games'; 'sports, social, and cultural participation'; 'reading and listening to radio or audio'; and 'transportation'. Finally, the same variables were recorded for a respondent's partner. 'Partner use of television and video' was used as a predictor of initiation and termination as well[2].

Table 2. *Individual television viewing during the day: Continuous data. Example provided by Hasebrink and Krotz, 1992.*

15:21:38	First initiation of television viewing
17:24:59	First termination of television viewing
17:44:30	Second initiation of television viewing
18:16:27	Second termination of television viewing
23:28:57	Third initiation of television viewing
00:41:56	Third termination of television viewing

Analysis

Design. To clarify some of the basic concepts in the following event history analysis, we will now discuss an empirical example of data suitable for this type of analysis as provided by Hasebrink and Krotz (1992; see Table 2). In passing, we will also clarify some of the analytical decisions made.

First, note that in some respects the data provided by Hasebrink and Krotz are more precise than our data. The Hasebrink and Krotz data identify the time of the occurrence of 'initiation of television viewing' and 'termination of television viewing' very precisely, up to the second. Our time grid is cruder: It consists of quarters. Yet, the fixed character of our time grid facilitates reporting of patterns of parallel activities that would otherwise be less easy to recall and report[3]. Because of this time-grid only a discrete time variant of event history analysis was appropriate. A translation of the Hasebrink and Krotz into such a time grid is graphically presented in Figure 1.

Figure 1 shows that a single individual can go through several changes (or 'events') throughout the day. Twice, the sampled subject goes from non-viewing to viewing, an event we have called 'initiation of television viewing'. And also twice, the subject goes from viewing to non-viewing and experiences the 'termination of television viewing' event.

Data restrictions. In the original Krotz-Hasebrink example the respondent went through six changes, three times from non-viewing to viewing and three times from viewing to non-viewing. In event history analysis, these events are sometimes analyzed simultaneously, as if they are similar and had similar causes. However, because we did not have data on how long respondents were at risk of first initiation of television viewing, we could not analyze all viewing episodes simultaneously. We therefore decided to analyze only data relating to the first and second episode of viewing. Given that in our sample 75 percent of all respondents did not start watching television for the third time, and because of that the first two episodes made up more than 80 percent of all viewing time, we

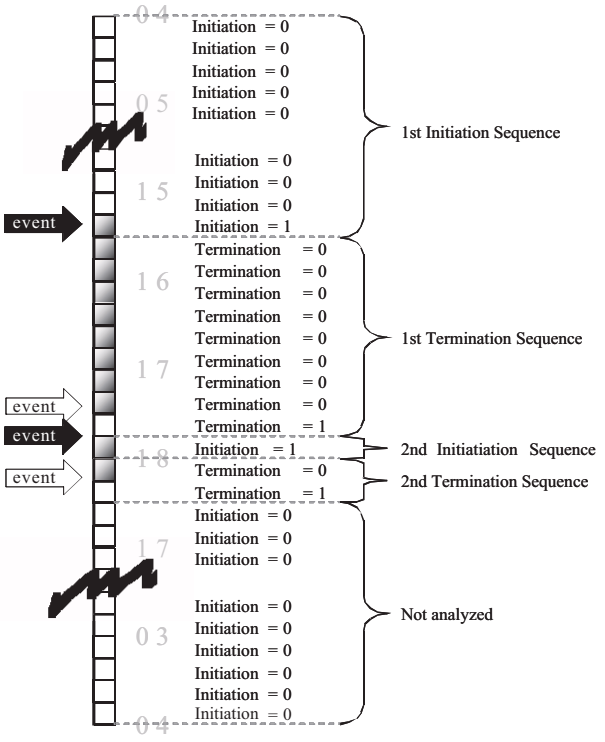

Figure 1. *Individual television viewing between 4:00 AM and 4:00 PM: Discrete data. Example based on Hasebrink and Krotz (1992).*

questioned the additional information value of analyzing the remaining episodes.

We further restricted our analyses to the prediction of viewing initiation and termination on weekdays only. The reason for this is that living arrangements on weekdays may differ from that during weekends.

Model estimation. Because of the discrete nature of our data, we chose logistic event modeling. Interpretation of parameters will be similar to that in common logistic regression, with one notable exception: Not the person, but the person-period will be the unit of analysis. This means that the model does not predict the probability that an event will happen to a person, but the conditional probability that an event will happen to a person in a particular interval.

Analysis of both initiation and termination were carried out in two stages. The first stage was directed at finding a parsimonious set of pre-

dictors for a given dependent variable (e. g., 'initiation of television viewing'). This was done by first entering all relevant predictors and then deleting the least significant predictor until only significant predictors were left in the regression model and no significant predictors were left out (tested with the likelihood ratio test, .05 level, two-tailed). Next, during a second stage, we tried to find out whether the first stage model was equally suited for male and female partners, and if not, what additions should be made. Second stage analysis always started with entering all relevant gender-related interactions into the model. So if the first stage ended up with a model with two significant predictors (X_1 and X_2) and without gender (G), we started the second stage with an extended model which did not only include the main effects of X_1 and X_2, but also the main effect of gender (G) and the interactions (X_1 by G, and X_2 by G). We then would compare the fit of the initial and the extended model and calculate the significance of the difference. In case of no significant difference, we would conclude that the first stage model is equally valid for men and women. In the opposite case, we would conclude that the model was not equally valid for men and women. In that case, we would start deleting the least significant interactions until only significant interactions were left over in the predictor set.

Results

Average levels of television viewing

Before we present the results of the event history analysis we carried out, we will first present an overview of aggregate viewing patterns in our sample. Table 3 presents some basic data on the episodes of television viewing and non-viewing per day. In the first three columns in the left half of this table, data on episodes of non-viewing are presented. The first column shows the distribution of the episodes of non-viewing. It shows that in total 1,217 episodes of non-viewing were sampled, and that most of these episodes (i. e., 844 or 69.5 %) are either the first or the second episode of the day. The second column shows how many episodes of non-viewing the average respondent went through. The total of the second column is 271.7 %, meaning that on average the sampled respondent went through 2.7 episodes of non-viewing. The third column shows length of episode of non-viewing. Clearly, the first episode of non-viewing is on average much longer than the subsequent ones. Its average duration is 14 hours and 9 minutes. Given that the observation interval starts at 4:00 AM this means that the average viewer starts watching television at 6:09 PM.

The right half of Table 3 shows data on the episodes of viewing. The first column in the right half of the table shows that 774 episodes of

Table 3. *Episode of television viewing and non-viewing by sequential order: Numbers of sampled episodes, percentage of sampled respondents involved, mean duration of episode.*

	Episodes of non-viewing			Episodes of viewing		
	N (episodes)	% of sampled respondents	Mean duration	*N* (episodes)	% of sampled respondents	Mean duration
1st episode	448	100.0 %	14:09	398	88.8 %	1:35
2nd episode	396	88.4 %	4:30	225	50.2 %	1:34
3rd episode	224	50.0 %	4:01	98	21.9 %	1.20
4th episode	96	21.4 %	3:42	35	7.8 %	1:30
5th episode	35	7.8 %	2:58	14	3.1%	0:55
6th episode	14	3.1 %	3:50	4	0.9 %	0:48
7th episode	4	0.9 %	5:33			
	1217	271.7 %	21:20	774	172.8 %	

viewing were sampled, and that the majority of these episodes (i. e., 623 or 80.4 % of these 774 episodes) were either a first or second episode. The second column in the right half of Table 3 shows that most of the respondents went through one or two episodes of viewing, but only 21.9 % through a third, and 7.8 % through a fourth. Finally, the third column in the right half of Table 3 shows that duration of an episode is not related to its sequential order. The association between duration and sequential order is not significant[4].

Average timing of television viewing. Figure 2 shows the average timing of television viewing for our sample. It is at its peak between 8:00 PM

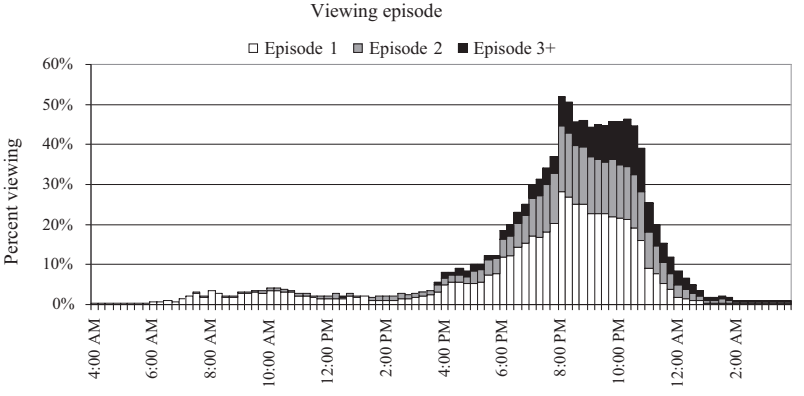

Figure 2. *Percentage of respondents watching television, by time of day.*

and 8:15 PM. At this time, 52 % of all sampled subjects is watching television. Of these 52 %, more than 50 % is in its first, and more than 30 % in its second viewing episode. So, for understanding prime time, understanding of initiation and termination of these two viewing episodes is clearly of paramount importance.

Event history analysis of first initiation of television viewing

We now come to the core part of this study, i. e., determining the influence of individual and household characteristics on television viewing. First we tried to determine what factors contribute to the initiation of television viewing by regressing initiation on the time-functional, time-constant, and time-varying variables and then reducing the number of variables by a stepwise removal of non-significant variables. We did this two times, for the initiation of the first and second viewing episode respectively. The estimated model for the first initiation of television viewing is presented in Table 4.

Table 4. *Prediction of first initiation of television viewing on time-functional, time-constant and time-varying variables. Final model.*

Variable	B	S.E.	LR	df	Sig.	Exp(B)
Time of Day	0.091	0.015	37.7	1	0.000	1.09
Time of Day Squared	−0.001	0.000	16.1	1	0.000	1.00
Self: Gender (m = 0, f = 1)	−0.363	0.111	10.7	1	0.001	0.70
Self: Age	−0.023	0.004	25.6	1	0.000	0.98
Self: Highest completed level of education	−0.087	0.026	11.9	1	0.001	0.92
Self: At home	0.752	0.142	30.8	1	0.000	2.12
Self: With non-family	−0.607	0.199	10.5	1	0.001	0.55
Self: Work, school, and study	−1.610	0.321	32.7	1	0.000	0.20
Self: Household work, and child care	0.371	0.139	7.0	1	0.008	1.45
Self: Eating and drinking	0.398	0.155	6.4	1	0.012	1.49
Self: Socializing, hobbies, and indoor games	−0.407	0.182	5.4	1	0.020	0.67
Self: Reading	0.517	0.189	6.9	1	0.008	1.68
Self: Transportation	0.683	0.201	11.2	1	0.001	1.98
Partner: Sleeping and personal care	−0.593	0.217	8.1	1	0.005	0.55
Partner: Work, school, and study	−0.651	0.173	15.9	1	0.000	0.52
Partner: Watching television	0.856	0.166	23.2	1	0.000	2.35
Constant	−5.130	0.476	116.3	1	0.000	0.01

Note: N (person-quarters): 24913. Likelihood chi-square model: 644.2; df = 16; p = .000. Nagelkerke's R^2 = 16.9 %.

Time-functional effects. The first two rows of Table 4 are indicative of 'time-functional effects'. These variables play an important role in the prediction of initiation. In a model with only these two time-functional variables, 8.4% of the observed differences in initiation are explained. According to this model, the predicted probability that initiation will take place is at its highest at 10:00 PM. Note that this does not mean that the average person starts viewing at 10:00 PM. On the contrary, by then most people will have started watching television already. However, for those who have not started to watch television by then, the risk is higher than at any other time before or after.

Effects of time-constant personal characteristics. We now will focus on the influence of four time-constant variables: Household size, age, education, and gender. Simultaneous inclusion of these four time-constant variables increases Nagelkerke's R^2 from 8.4% to 8.8%. So they play a modest role. According to Table 4, age and education have negative effects on initiation. Given that ninety percent of all sampled people start watching television at least once, this probably means that elderly and higher educated people are likely to postpone television viewing. The bivariate effect of age on first initiation and that of level of education on initiation were both negative as well. The effect of household size on initiation was neither in bivariate nor in multivariate analysis significant.

The effect of gender was somewhat complex. Gender has a positive effect on first initiation in bivariate analysis, meaning that on average women are more likely to start watching early in the day. However, as one can see in Table 4, this effect of gender becomes negative if other relevant predictors of initiation are included. An explanation for this could be that women are more often in situations in which they can watch television. They are more often at home and therefore have more opportunities to start watching early in the day. However, the multivariate analysis suggests that in similar circumstances men are more likely to start watching. So if men are at home, they are actually more likely to start watching television than women. A reason for this may be that women, unlike men, see home as a social context for which they are primarily responsible. In other words, they are not simply at home, they are homemakers at work (cf. Morley, 1986).

In trying to answer the last part of our fourth research question (about the similarity between the factors that explain television viewing for men and women) we analyzed whether or not the process of initiation is analogous for men and women. We did this by comparing the model displayed in Table 4 with a model that also included relevant gender-related interaction terms[5]. These added terms did, however, not signifi-

cantly improve the model[6]. Therefore we conclude that first initiation is a process that is the same for men and women.

Effects of engagement in family settings and contacts with others. In separate bivariate analyses, four out of five variables indicative of engagement in family settings and contacts with others had a positive effect on first initiation, and one had a negative effect. 'At home, alone', 'with kids', and 'with adult family' were all significant positive predictors of the initiation of television viewing, while 'being with non-family' had a significant negative effect. These bivariate effects suggest that in the Netherlands, television viewing is a private activity. Watching television is something one does at home, with kids or with adult family or when one is alone. It is not something that is undertaken with people from outside the household.

A more or less similar picture emerges from multivariate analysis. In this analysis, 'being at home' again has a positive effect, and 'being with non-family' again a negative effect on initiation. The effects of these two variables were considerable. After entering them into the equation, Nagelkerke's R^2 increased from 8.8% to 12.8%. The effects of 'being alone', 'with kids' or 'with adult family' did not retain significance in multivariate analysis. This means that these variables do not influence the first initiation of television viewing directly, but are spurious or influence initiation via other predictor variables.

Own activities as antecedents of television initiation. Following our first research question, we looked at how a respondent's own activities influence the initiation of television viewing. In the final model, six variables indicative of own activities are retained. After adding these variables, Nagelkerke's R^2 increased from 12.8% to 15.5%, so they have some predictive power.

Some effects of activity variables are easy to understand. Variables indicative of home bound activities (such as as 'eating and drinking', 'household work' and 'child care', and 'reading') tend to have a positive effect on initiation. This means that such activities tend to precede initiation directly and may play an enhancing role.

An exception to the rule that indoor activities precede and/or enhance first viewing initiation is the negative effect of 'socializing' and involvement in 'hobbies and indoor games' on initiation. It appears that this activity tends to inhibit or postpone television viewing. That is also the effect of involvement in 'work', 'school', or 'study'.

A special case is that of transportation. It has a positive effect on initiation. In order to understand this, one has to keep in mind that all activity variables are lagged, so that initiation of television viewing can

be predicted on the basis of activities in the preceding quarters. The positive effect of transportation on initiation can therefore also be interpreted as merely reflecting a temporal order. Our finding simply means that many people turn on the television as soon as they have come home.

Partner activities antecedents of television initiation. We also found some modest support for our assumption that viewing initiation by the respondent is influenced by the actions of her/his partner. By entering variables related to activities by the respondent's partner, the percentage of explained variance as measured by Nagelkerke's R^2 increases from 15.5% to 16.9%. Synchronization appears to be key word for understanding the effects of partner activities here. For instance, if the partner is sleeping or engaged in personal care, this has a negative effect on the initiation of television viewing. The likely explanation for this is that partners synchronize their time use, and that if one partner is getting ready for bed, the other partner will follow soon and will not start watching television.

The synchronization mechanism may also explain why engagement in 'work', 'school', or 'study' by the partner has a negative effect on initiation of viewing by the partner. And finally, it explains why viewing by the respondent's partner has a positive impact on initiation of television viewing by the respondent. This validates similar observations made in an earlier study by Huysmans (2001).

Table 5. *Prediction of second initiation of television viewing on time-functional, time-constant and time-varying variables. Final model.*

Variable	B	S.E.	LR	df	Sig.	Exp(B)
Time of day	0.194	0.034	41.5	1	0.000	1.21
Time of day squared	−0.002	0.000	35.0	1	0.000	1.00
Time at risk	−0.031	0.015	4.2	1	0.039	0.97
Time at risk squared	0.001	0.000	5.8	1	0.016	1.00
Self: At home	0.452	0.189	6.0	1	0.015	1.57
Self: With non-family	−1.074	0.290	16.9	1	0.000	0.34
Self: Sleeping and personal care;	−2.283	0.358	52.3	1	0.000	0.10
Self: Work, school, and study	−0.949	0.346	8.9	1	0.003	0.39
Self: Socializing, hobbies, and indoor games;	−0.498	0.223	5.4	1	0.020	0.61
Self: Sports, social, and cultural participation;	−1.660	0.522	16.2	1	0.000	0.19
Self: Reading	−0.728	0.263	8.9	1	0.003	0.48
Self: Transportation	0.669	0.246	7.1	1	0.008	1.95
Partner: Watching television	0.743	0.178	16.2	1	0.000	2.10
Constant	−8.066	0.962	70.3	1	0.000	0.00

Note. N (person-quarters): 7068. Likelihood chi-square model: 385.5; df = 13; p = .000. R^2 Nagelkerke = 21.7%.

Event history analysis of second initiation of television viewing

The models explaining first and second initiation of television viewing have many similarities, but some dissimilarities as well. The most striking dissimilarity is the effect of reading. It has a positive effect on first but a negative effect on second initiation of television viewing. So the first time that people start watching television is often preceded by some reading, but if they start reading again, the probability of re-initiation is diminished significantly. Reading is, apparently, compatible with spending some time in front of the television set but not with watching television more than once a day.

Besides the reversal of the effect of reading, there are some other differences as well. Some predictors of first initiation appear to have no direct effect on second initiation. This is true for age, education, and gender. These time-constant variables all had a negative effect on first initiation but had no such effect on second initiation. So being old, higher educated, and female appears to produce a compressed viewing pattern, with most viewing concentrated at the end of the day. Other variables that have a significant negative effect on first but not on second initiation are involvement in 'household work' and 'child care' by the respondent; 'eating and drinking' by the respondent; 'sleeping and personal care' by respondent's partner; and involvement in 'work, school, or study' by respondent's partner. An explanation for the fact that these variables are not significant predictors of second initiation may be that most of them do not operate during the evening hours, during which most re-initiation of television viewing takes place. This interpretation is, however, somewhat odd for understanding the disappearance of the effect of 'sleeping and personal care' by the partner − these activities are of course more typical of evening hours than of daytime hours. So for this finding, another explanation is needed, and perhaps it is rather simple. The fact that 'sleeping and personal care' by the partner is not included in the final model predicting second initiation of viewing may be caused by the fact that the role of this variable is now being taken care of by another variable: 'Sleeping and personal care' *by the respondent*. 'Sleeping and personal care' *by the partner* remains significant if that variable is not entered.

A third group of dissimilarities was made up by variables that had no significant effect on first viewing initiation but did have an effect on second viewing initiation. As mentioned earlier, 'sleeping and personal care' by the respondent was one of these variables. Another variable that newly emerged as a predictor of initiation was that of engagement in 'sports, social, and cultural participation'. It makes sense that this variable specifically competes with second initiation of television viewing,

because both second re-initiation of television viewing and engagement in sport and participation take place during the evening hours, so they may compete with each other. This finding offers some support for the displacement hypothesis put forward by Putnam (1995).

Furthermore, there were some clear similarities between the models for first and second initiation as well. In both models, 'time of day' has a curvilinear effect on initiation. This effect is complemented in the model for second initiation by the effect of 'time at risk', which also has a curvilinear effect. The latter effect means that re-initiation of television viewing is likely to take place either just after finishing the first viewing session, or otherwise after a long interval of non-viewing. Additional similarities between the models for first and second initiation are that being 'at home' and 'watching television' by respondent's partner again show as positive predictors, and being 'with non-family'; involvement in 'work, school, and study'; and 'socializing' and engagement in 'hobbies or indoor games' again stand in the way of initiation.

A final similarity between the models for first and second initiation was that both models are valid for men and women alike. For second initiation, this was tested by a comparison of the fit of the model displayed in Table 5 with a model that also included the gender variable and relevant gender-related interaction terms. This did not significantly improve the model[7]. Therefore we conclude that the mechanisms underlying second initiation appear to be the same for both men and women.

Event history analysis of first termination of television viewing

To understand the factors involved in the termination of television viewing we used an analogues procedure as for initiation. This resulted in a model for the prediction of first termination of television viewing presented in Table 6.

Time-functional effects. Again, the first two variables indicate time-functional effects. The interpretation of these effects is that for those watching television for the first time, the chances of viewing termination are relatively low at the start of the evening. They are higher during the daytime and at the end of the evening. 'Time at risk' has no effect on termination, i.e., the time someone has already spent in front of the television does not predict how likely it is that s/he will stop viewing. The combined predictive power of time-functional effects is moderate. A model using the above-mentioned time-functional effects explains 3.9% of all differences in the timing of termination.

Table 6. *Prediction of first termination of television viewing on time-functional, time-constant and time-varying variables. Final model.*

Variable	B	S.E.	LR	df	Sig.	Exp(B)
Time of day	−0.094	0.016	35.4	1	0.000	0.91
Time of day squared	0.001	0.000	26.7	1	0.000	1.00
Household size	0.125	0.049	6.4	1	0.011	1.13
Self: Highest completed level of education	0.132	0.027	23.5	1	0.000	1.14
Self: Sleeping and personal care	0.904	0.254	11.8	1	0.001	2.47
Self: Reading	−0.631	0.274	6.0	1	0.014	0.53
Partner: Socializing, hobbies, and indoor games	−0.444	0.182	6.4	1	0.011	0.64
Partner: Watching television	−0.462	0.128	13.2	1	0.000	0.63
Constant	−0.039	0.371	0.0	1	0.917	0.96

Note: N (person-quarters): 2524. Likelihood chi-square model: 137.4 df = 8; $p < .001$. R^2 Nagelkerke = 9.1%.

Effects of time-constant personal characteristics. Of all four time-constant variables ('household size', gender, age, and level of education) only education and 'household size' were retained in the final model, signaling that these are the only two time-constant variables that have a direct influence on termination. The effect is in both cases positive, meaning that higher educated people and those from larger households tend to watch television for relatively short intervals. Inclusion of education and 'household size' into the estimated model augments the variance explained from 3.9 to 6.8 percent.

The effect of education is relatively strong. The higher educated appear to watch for shorter intervals, but we cannot ascertain why. It could be a consequence of the degree of self-discipline that higher educated people have developed, or a value culture that is present only among those higher educated. Furthermore, it could also be the result of the fact that higher educated people tend to have less physically demanding jobs; or perhaps is it that mental habits of those higher educated are at odds with watching indiscriminately and thus for an extended period. We do not know why the higher educated watch for shorter intervals. However, our data do suggest that it is not only because of the fact that those higher educated have other activity patterns. If this were the case, then the effect of one's level of education would have melted away after entering activity-related variables, which it did not.

Age has no direct effect on first termination. As a single predictor, it has a significant negative effect on termination, meaning that the elderly apparently do watch television for longer periods of time. However, as soon as education is entered into the equation, the effect of age becomes insignificant. So it seems that older people tend to be reluctant to turn

off the television because of their lack of education. Had they had more opportunity for education, they might not have developed these routines that keep them glued to the television set.

Gender does apparently not have any impact on first television termination. The zero order effect of gender is neither significant, nor is it a significant predictor of first television termination in multivariate analysis. We have also checked whether or not the model present in Table 6 was equally valid for men and women, using the procedure outlined earlier. It did not produce a significantly better model, so we assume that gender has no influence on first termination at all[8].

Effects of engagement in family settings and contacts with others. The five time-varying variables ('at home', 'alone', 'with kids', 'with adult family', 'with non-family') did not have a direct effect on termination. Similarly, none of the zero order associations between these variables and first termination were significant. So we conclude that engagement in the family settings and contacts with others do not have a measurable influence on termination.

Effects of activities. Out of the nine variables indicative of own activities and of the ten variables indicative of partner activities, only four contributed significantly to the prediction of first viewing termination, and their effect is rather moderate. The variable 'sleeping and personal care' by the respondent has a positive effect on termination of television viewing. It is easy to understand why. It is very likely that people will cease to watch television after getting ready for bed, or if they are already in bed, watching television. So we see here that turning off the television marks the end of the day. Table 6 further indicates that reading is a negative predictor of termination. Those who read before or while watching television appear to be reluctant to stop watching. We are unable to establish why though.

The effects of partner activities are easier to interpret. If the respondent's partner is engaged in 'socializing, hobbies, and indoor games', the respondent will be more likely to continue watching television. Here, watching television appears to operate as substitute activity that compensates for partner unavailability. The negative effect of television viewing by the partner on viewing termination is, of course, easy to understand. Again, we see that partners like to watch television together.

As said, the effect of activity related variables on first termination is rather moderate. Inclusion of 'sleeping and personal care' and 'reading' by the respondent increases the explained variance from 6.8 to 8.1 percent. Moreover, inclusion of partner activities augments the explained variance to 9.1 percent.

A genderized model for explanation of second termination of television viewing

Before we discuss the last model to be presented, we have to explicate how we arrived at it. As before, we started with a set of 28 predictors, which were reduced by means of a backward stepwise procedure so that only significant predictors were retained. For the model explaining the second termination of television viewing, retained predictors were 'time of day' plus its square; highest educational level of the respondent; 'work, school, or study'; engagement in 'sports' by the respondent; 'social and cultural participation' by the respondent; 'sports, social, and cultural participation' by the partner; and 'watching television' by the partner. Our next step in the analysis then was to check whether the model was equally valid for men and women, by adding gender-related interaction terms to the model. In total, seven gender-related interaction terms and the gender variable itself were entered into the model. Then we evaluated the change in model fit, to see whether it was significant. In this case it was[9]. Then, the nonsignificant interaction terms were removed by means of a backward stepwise procedure. This resulted in our final, 'genderized' model, presented in Table 7.

Again, we see that time has a curvilinear effect on the probability of termination. Chances of termination are high before noon and after midnight. They are at their lowest at 6:30 PM − just as we saw for the chances of terminating the first viewing episode. Nagelkerke's R^2 for the model with 'time of day' and its square is 3.9 %, which is again moderate.

A second similarity between first and second termination is the role played by level of education. Again, we see that high education promotes

Table 7. *Prediction of second termination of television viewing on time-functional, time-constant and time-varying variables. Final 'genderized' model.*

Variable	B	S.E.	LR	df	Sig.	Exp(B)
Time of day	−0.190	0.035	30.1	1	0.000	0.83
Time of day Squared	0.002	0.000	29.8	1	0.000	1.00
Gender	1.270	0.384	11.0	1	0.001	3.56
Self: Highest completed level of education	0.167	0.047	12.7	1	0.000	1.18
Self: Highest educational level by gender	−0.177	0.067	7.1	1	0.008	0.84
Self: Work, school, or study	−1.952	0.715	10.0	1	0.002	0.14
Partner: Sports, social, and cultural participation	−0.979	0.441	6.2	1	0.013	0.38
Partner: Watching television	−0.458	0.163	8.1	1	0.004	0.63
Constant	2.929	1.045	7.9	1	0.005	18.71

Note: N (person-quarters): 1398. Likelihood chi-square model: 66.7; df = 8; $p < .001$. R^2 Nagelkerke = 8.0 %.

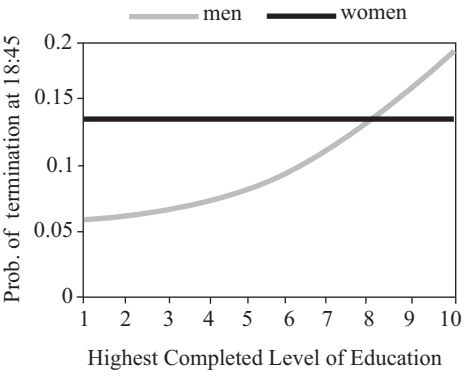

Figure 3. *Estimated educational differences in probability of second termination at 18:45 by gender.*

termination of viewing. However, here, for the second viewing episode, we find this is only true for men. For women, this effect is almost non-existent. Women cut short their second viewing episode anyway, regardless of their level of education. As a result, we see that lower educated men watch for longer intervals, and the highest educated men watch for shorter intervals, than their female counterparts. An explanation for this may be that home is a leisure context for lower educated men, but not for women or higher educated men.

By entering gender, level of education, and 'educational level by gender' into the equation, Nagelkerke's R^2 increases from 3.9% to 5.5%. An extra 1.1% is gained by entering the variable indicative of engagement in 'work, school, or study' by the respondent into the equation. An explanation for this effect may be that we are here dealing with real television fans. They have already watched television before work, and now they come from their work, or school, or from doing their homework and turn on the television almost right away.

By including engagement in 'sports, social, and cultural participation' and 'watching television' by the partner, Nagelkerke's R^2 finally increases from 5.6% to 8.0%. Again, these effects are no surprise. In all preceding analyses, 'television viewing' by the partner has been associated with viewing initiation or continuation by the respondent, and here we see the same. The negative effect of engagement in 'sports, social, and cultural participation' is not a big surprise either. In the case of first viewing termination, we saw that 'socializing, hobbies, and indoor games' by the partner prevented termination. We then argued that watching television appears to operate as substitute activity that compensates for partner unavailability. The same reasoning applies here as

well. So, our interpretation of this effect is that in case one partner is engaged in participation, s/he tends to be unavailable for the other partner. In that case, the other partner will fill in the gap of that absence by continuing to watch television.

Discussion

At the end of this article, we would like to summarize our main findings and reflect on consequences of our findings for existing theory and research.

Summary. Our first research question was how television viewing is influenced by the performance of other activities. It is clear from our data that these other activities do have an influence, and that this influence is not always negative. People often start watching television right after engagement in household work and child care, and after eating and drinking. Sleeping and personal care, as well as occupational activities are, on the other hand, very effective blockers of television initiation. Moreover, participatory activities (such as socializing, engagement in hobbies and games, and in sports, social, or cultural participation) appear to delay, cut short and inhibit television viewing.

Our second research question directly relates to the embeddedness of television viewing in a web of primary social ties. Our data indicate that being at home, and being involved in home-centered activities, are both positively related to the initiation of television viewing. Conversely, the co-presence of non-family prevents the initiation of viewing. So it seems that the family setting promotes the *initiation* of television viewing. This does, however, not mean that the family setting only promotes television viewing. This becomes clear from our analyses of viewing termination, in which we saw presence within the family setting does not protect against termination of viewing, and that large households actually tend to have higher levels of viewing termination. So, family life does promote some television viewing, but it does not promote long sustained viewing sessions.

Furthermore, we found some expected and unexpected effects of partner activities. As expected, we found that viewing by one partner increased the likelihood of the other partner starting or continuing to watch television. Nor were we surprised by the finding that occupational activities and sleeping and personal care by one partner predicted non-initiation of viewing by the other partner. These findings can be interpreted as additional evidence for the idea that partners synchronize their activities, and that television viewing is part of that synchronization process. We were, on the other hand, somewhat surprised by the finding

that participatory activities (socializing, engagement in hobbies and games, sports, and cultural and social participation) by one partner appeared to inhibit termination of viewing by the other partner. Our understanding of this finding is that in such situations, television viewing acts as a substitute that compensates for partner unavailability.

Finally, we found that stable personal characteristics played a role in shaping television viewing as well. Most consistent appeared to be the influence of highest completed level of education. Education apparently inhibits initiation of television viewing and promotes the early termination of viewing sessions. We found some indications that education is less important for understanding the viewing patterns of women. The influence of gender on routines in television viewing appeared to be rather complicated. On average, women tend to start watching television earlier than men. However, if the effect of the situational context is controlled for (particularly the fact the women are more often at home) another picture emerges. We then see that women are more reluctant to start watching television. We further saw that on average, women tend to interrupt their second viewing session earlier than men. Finally, age had a considerable impact on initiation and termination. On average, the elderly postpone viewing. Once they have started, they watch for longer intervals. However, this appeared not to be a genuine effect of age but an effect of education instead.

Conclusion. In this article we have elaborated on some central ideas from the Media Use As Social Action approach. Building on the assumption that most human actions are routine responses to frequently occurring experiences and that television viewing usually is a routine way of coping with such frequently occurring experiences, we analyzed the interplay between television viewing and other aspects of everyday life.

We found that television viewing is an integral part of family life and an alternative to it as well. Or put otherwise, one might say that television viewing is partly a shared activity and partly a substitute activity. As a shared activity, it is combined with family activities such as eating and drinking, household work, and child care. And as a substitute activity, it can serve as a surrogate partner if the real partner is unavailable. This latter finding confirms the parasocial character of television viewing as discussed by Graney and Graney (1974), Horton and Wohl (1956), Prakke (1956), Rubin, Perse, and Powell (1985), and Rubin and Perse (1987).

Notes

1. Of an additional 7 households, it is unknown whether they participated fully or partially (due to incomplete information gathered during the personal interview).
2. In response to the questions "What were you doing? What else were you doing?" respondents could describe in their own words what they had done, during a given quarter. These answers were preliminary coded using the three-digit code scheme introduced by Eurostat (2000), and then for the purpose of this research into 14 broad categories. Then, fourteen dummies were created and then lagged. Recoding of three-digit Eurostat codes into 10 broader activity categories was done by applying the following scheme: 010, 011, 012, 019, 530, 531, 030, 031, 032, 033, 039 → Sleeping and Personal Care; 020, 021, 022, 029 → Eating and Drinking; 100, 110, 111, 112, 113, 119, 121, 122, 131, 133, 139, 141, 142, 149, 200, 210, 211, 212, 213, 219, 220, 221 → Work, School, and Study; 300, 310, 311, 312, 313, 319, 320, 321, 322, 323, 324, 325, 329, 331, 332, 333, 334, 335, 339, 340, 341, 342, 343, 344, 349, 350, 351, 352, 353, 354, 359, 360, 361, 362, 363, 365, 366, 369, 370, 371, 379, 390, 380, 381, 382, 383, 384, 385, 386, 387, 389 → Household Work and Child Care; 510, 511, 512, 513, 514, 519, 540, 364, 700, 710, 711, 712, 713, 719, 720, 721, 726, 722, 729, 730, 731, 732, 733, 734, 735, 739 → Socializing, Hobbies and Indoor Games; 410, 411, 412, 419, 420, 421, 422, 423, 424, 425, 427, 428, 429, 430, 431, 432, 391, 520, 521, 522, 523, 524, 525, 526, 529, 600, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 621, 630, 631 → Sports, Social and Cultural participation; 800, 810, 811, 813, 814, 815, 819 → reading; 820, 821, 822, 829 → watching television or video; 830, 831, 832, 839 → listening to radio or audio; 900 thru 994 → transportation. Note that the dummy for watching television or video was *not* used as a predictor of the initiation or termination of someone's own television viewing; it was only used as a predictor of the initiation or termination of television viewing by someone's partner. Moreover, it was used without restrictions as a predictor of the initiation or termination of someone's own television *news* use.
3. Past research indicates that fixed time interval data usually present a picture of everyday life activities that is largely unbiased (Oudhof, Stoop, and Luttikhuizen, 1988). An advantage of a fixed time grid is that it provides a basis for the recall of events (Freedman, Thornton, Camburn, Alwin, and Young-Demarco, 1988) although there appears to be some underreporting of activities of short duration (Harvey, 1993; Huysmans, 2001).
4. Tested at .05 with one-way analysis of variance.
5. So, to give an example the interaction term 'household size × gender' was added to the variable 'household size', the interaction term 'self: at home × gender' was added to the variable 'self: at home', etc.
6. Likelihood chi-square of the initial model: 644.2; df = 16; $p < .001$. Likelihood chi-square of the model with gender and gender interactions: 656.8; df = 31; $p = < .001$; likelihood chi-square of the difference between these models 12.7; df = 24; $p = .623$
7. Likelihood chi-square of the initial model: 385.5; df = 13; $p < .001$. Likelihood chi-square of the model with gender and gender interactions: 403.9; df = 27; $p = < .001$; likelihood chi-square of the difference between these models 18.4; df = 24; $p = .190$.
8. For the procedure, see note 6. Likelihood chi-square of the initial model: 137.4; df = 8; $p <. 001$; likelihood chi-square of the model with gender and gender interactions: 152.5; df = 17; $p <. 001$; likelihood chi-square of the difference between these models 15.1; df = 9; $p < .089$.

9. Likelihood chi-square of the initial model: 58.8; df = 7; p < .001. Likelihood chi-square of the model with gender and gender interactions: 79.4; df = 15; p = < .001. Likelihood chi-square of the difference between these models 20.6; df = 8; p = < .01.

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