

Psychological Escapism: Predicting the Amount of Television Viewing by Need for Cognition

By Bernd Henning and Peter Vorderer

Germans spend an average of more than 3 hours watching television each day. Among them, there are many who turn on their TV sets for less than 1.5 hours a day, and others who do this for more than 8 hours a day. What accounts for these differences? The central thesis in this paper is that individuals may be distinguished by their attitude toward thinking and that differences in their need for cognition explain the differences in their time spent with TV. The lower viewers' need for cognition is, the less pleasant they feel when they have nothing to do because there is nothing left to do but think. The easiest way for individuals to escape this pressure to think is by watching TV. Thus, individuals will watch more TV when they have a lower need for cognition. Results of a survey study show that the concept of escapism proves to be useful in explaining TV use when it takes over a psychological perspective as well as a sociological one.

In 1998, Germans over the age of 13 spent an average of 3 hours and 20 minutes watching television each day (Darschin, 1999, p. 154). This average represents a distribution of individual values with considerable variation: For example, there are approximately 27 million nonviewers and light viewers in Germany who watch television less than 1.5 hours each day, and there are also approximately 15 million heavy viewers who watch television more than 6 hours each day, including 3 million Germans who watch TV more than 8 hours daily (Fischer, 1997, p. 41). The causes of such individual differences in amount of television viewing remain largely unexplained, although researchers have attempted to attribute them to sociodemographic variables. As Schulz (1987) has noted:

[S]ociodemographic variables can only explain 13 percent of the variance within the viewing amount. The large unexplained percentage of variance is a challenge for the media-science. The important question, which social and psychological characteristics distinguish light viewers from heavy viewers, has up to now been answered only to a small degree. (pp. 27–28; authors' translation)

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The objective of this study is to contribute to the closing of this scientific and theoretical gap. It seeks to answer the following question: What caused the differences observed among individuals with regard to amount of television viewing?

Concepts of Escapism

Perhaps the most prominent approach toward explaining causes of television exposure involves escapism. "In its core, escapism means that most people have, due to unsatisfying life circumstances, again and again cause to 'leave' the reality in which they live in a cognitive and emotional way" (Vorderer, 1996, p. 311):

[One can] argue that, from a psychological point of view, also other functions like the possibility of not being alone ("companionship") or to pass the time away can be subsumed under one and the same motive, because all these cases are attempts or intentions of recipients to apparently leave their current social situation. (Vorderer, 1996, p. 313)

But in addition to one's social situation, there is also a psychological situation that is largely independent of social influences and can trigger an escapist manner of television viewing.

Kubey (1986) notes that the research literature "has made it clear that television is an activity likely to be chosen by people wishing to escape from negative feelings and from the demands of reality" (p. 110). What sorts of negative feelings and demands of reality, however, cause people to escape with television to varying degrees? Kubey proposes three hypotheses:

1. [. . .] that negative experiences at work would lead people to gravitate to television upon returning home;
2. [. . .] that negative experiences while interacting with other people would be related to heavier viewing; and
3. [. . .] that heavier viewers of television would report feeling relatively worse than light viewers during "non-activities" such as waiting, daydreaming, sitting and not doing anything, or staring out a window. (p. 111)

With these hypotheses in mind, we will now provide a more precise categorization of concepts related to escapism. Kubey's first hypothesis stands for what we call sociological escapism; his second hypothesis, for social-psychological escapism; and the third one, for individual-psychological escapism.

We use the term *social-psychological escapism* when escapism concerns the closer social setting of the recipient. In the spotlight of social-psychological escapism stands the compensation of deficits in social interactions. Although this conceptualization of escapism seems very plausible, empirical investigations of this approach have yielded heterogeneous and altogether rather weak results. Perloff, Quarles, and Drutz (1983), for instance, found a significant positive effect of the dissatisfaction with relationships on the viewing amount, whereas Rubin (1985) could not find such a correlation.

By using the term *sociological escapism*, we refer to the oldest concept of escapism. Even in the 1940s and 1950s mass communication researchers held alienated work and life experiences responsible for an escapist media usage (Vorderer, 1992, p. 107). Here again the empirical findings are inconsistent and altogether rather weak. Vitouch (1993, p. 82–83), for instance, could not find significant correlations between viewing amount and the variables control at workplace and external belief of control, whereby external belief of control referred to the subjective feeling that one's own life depends mainly on destiny and chance or on other more powerful people (Krampen, 1981, 1991). Schulz (1997) found only very weak correlations between viewing amount and external belief of control, whereas Benner (1996) found significant correlations. Another example of what we mean by the term *sociological escapism* is given by Schulz (1997, p. 101). He assumes that the increase of the television viewing in Germany within the 1980s and 1990s also results from the population's desire to make the increased hardships of everyday life more bearable by means of watching television, so one could expect an association between viewing amount and life satisfaction. Again, though, the empirical findings are heterogeneous and altogether rather weak. Neither Rubin (1985) nor Benner (1996), for instance, were able to find significant associations between viewing amount and life satisfaction, whereas Morgan (1984) found significant correlations between viewing amount and perceived quality of life. The theoretical and empirical difficulty of associating escapism with social causes via alienation and life satisfaction has already been discussed by Groeben and Vorderer (1988) with their example of reading motivations. They have shown that the empirical association between social situation and life satisfaction has turned out to be much weaker than proposed in the concept of *sociological escapism*.

Finally, Kubey's third hypothesis illustrates what we call *individual-psychological escapism*, which refers to aspects of the personality largely unaffected (or at least not caused directly) by the social setting. Alternately stated, individual-psychological escapism means that an individual escapes from something that is not (directly) socially caused. Kubey's aforementioned third hypothesis serves as an especially illustrative example of this kind of escapism. At its core, this hypothesis suggests that people watch more television according to how bad they feel when they have nothing else to do (Kubey, 1986). Kubey's findings are based on a sample consisting of assembly-line workers, clerical workers and secretaries, and managers. These 107 persons were equipped with pocket-sized electronic paging devices for a period of 1 week. Whenever one of them received a beep according to a random schedule, the individual completed a self-report questionnaire. Altogether 4,791 questionnaires were collected. The questionnaire asked about the primary and secondary activities in which the respondents were involved at that moment. By means of a semantic differential consisting of happy–sad, cheerful–irritable, friendly–hostile, and sociable–lonely, Kubey built the factor "affect." Then, he computed the correlations between amount of television viewing and the affect of the respondents during different activities. His main finding is that the amount of viewing correlates with the affect during idle periods, but not with the affect experienced while an individual is working or talking. This suggests that

individuals watch more television the worse they feel while doing nothing, whereas viewing amount is not influenced by their affect as they work or talk. Kubey also found significant correlations between viewing amount and the affect experienced while walking and standing as well as while riding in a car, bus, or train (but not while driving), whereas there were no significant correlations between viewing amount and mood during housework, meals, or other leisure activities.

The question thus arises: Do heavy viewers feel worse than light viewers because they feel lonely while idle, walking, and standing, or do they feel worse because these are “unstructured activities with little or no externally structured or immediate goal-directed involvement” (p. 117)? To answer this question, Kubey compared the affect experienced during unstructured activities (e.g., staring into space, waiting for someone, walking or pacing, standing in place, relaxing, sitting, lying in bed, trying to sleep, fantasizing, daydreaming, thinking about the past or future, or riding in a car, bus, or train) to the affect experienced during structured activities (e.g., cooking or baking, cleaning, completing chores at home, sewing or knitting, partaking in hobbies, laboring in the workplace) while taking into account whether the respondent was alone or with others. Kubey’s unambiguous results show that heavy viewers feel worse than light viewers only during unstructured activities, but not during structured activities, no matter if the respondents were alone or with others. In other words, during unstructured activities, heavy viewers feel worse than light viewers, even when they are in the company of others.

Kubey explained these findings with regard to alienation from the self, which he measured with the Maddi Alienation Inventory (Maddi, Kobasa, & Hoover, 1979, cited in Kubey, 1986). He indeed found a significant correlation between alienation from self and the affect experienced during unstructured activities. Kubey concluded:

Individuals’ experience of alienation from self translates into negative experiences during idle time because it is during such time that people necessarily come into greater contact with the self. For those most alienated from [the] self, television offers a ready means of structuring attention that permits both escape from and avoidance of the discomfort that normally occurs during idle time. (Kubey, 1986, pp. 116–117)

Individual-Psychological Escapism and Need for Cognition

Kubey’s explanation of the negative affect experienced during idle periods as alienation from self is plausible. At the same time, however, we regard this explanation as being too restrictive. On a more general level, therefore, we assume that people feel worse during unstructured activities, when it is less pleasant for them to think, in general, and that their thoughts need not necessarily be about themselves. Whereas Kubey explains the association between viewing amount and negative affect during unstructured activities using the concept of alienation from self, we aim to widen this explanation from the more specific “alienation from self” to the more general “disliking of thinking.”

Cacioppo and Petty (1982) have developed a scale that measures the opposite of this disliking of thinking, namely the “tendency for an individual to engage in and enjoy thinking” (p. 116). They call this positive attitude towards thinking “need for cognition” (NFC), a term that they have taken from Cohen, Stotland, and Wolfe (1955, cited in Cacioppo & Petty, 1982):

Cohen et al. (1955) described the need for cognition as “a need to structure relevant situations in meaningful, integrated ways. It is a need to understand and make reasonable the experiential world” (p. 291). Gardner Murphy (1947) described a similar tendency as characterizing “thinkers,” for whom he suggested it had become “fun to think” (p. 405) and to “quest for reality” (p. 407). (Cacioppo & Petty, 1982, pp. 116–117)

Concerning individual differences in the amount of television viewing, our argument is that individuals can be distinguished by their attitude toward thinking—on a scale ranging from a low to a high need for cognition. The lower their need for cognition, the less comfortable they feel when they have nothing to do, because then there is nothing left to do but think. The simplest way for individuals to escape this pressure to think is by watching television, because television is available 24 hours a day and it distracts from one’s own thoughts. Watching television, therefore, frees individuals from the pressure of having to think by themselves. This does not mean, however, that it is impossible to think while watching television. Instead, it suggests that the sequential nature of television programming makes it more difficult for individuals to think autonomously. In contrast to reading a book, one cannot put aside television to make a “thinking-pause.” Television lacks, so to speak, a “thinking-pause button,” but people with a low need for cognition do not miss such a button. They rather like watching television because they know that such a button is lacking. In contrast, people who tend toward a high need for cognition frequently perceive times in which they have nothing to do as an opportunity, rather than a pressure, to think. As a result, they therefore should feel less frequently a need for distraction by watching television. Thus, our basic hypothesis is that individuals will watch more television the weaker their need for cognition is.

An experiment conducted by Cacioppo and Petty (1982, p. 126) shall serve as an illustrative example of the need for cognition. Their sample consisted of 97 students who answered the need-for-cognition scale and then had to solve either a simple or a complex number-circling task with 3,500 random numbers. In the simple condition, participants were instructed to circle all 1s, 5s, and 7s, whereas in the complex condition participants were instructed to circle all 3s and 4s and any 6 that preceded a 7. Afterward participants rated their enjoyment of the task on a 7-point scale. Their main finding is that participants categorized by median split as high in need for cognition enjoyed the complex number-circling task significantly more than the simple one, whereas participants classified as low in need for cognition derived significantly more enjoyment from the simple task rather than from the complex one.

Important to mention is the association between need for cognition and intelligence: "Need for cognition is thought to reflect a cognitive motivation rather than an intellectual ability [. . .] and thus it should be related to but nonredundant with intellectual ability" (Cacioppo, Petty, Feinstein, & Jarvis, 1996, p. 215). Indeed, need for cognition is significantly related to intellectual ability indexes such as verbal intelligence, American College Testing scores, and high school-college grade point averages (for an overview of relationships between need for cognition and other individual differences from over 100 empirical studies see Cacioppo et al., 1996). This might be the explanation for the often described relationship between viewing amount and formal education (e.g., Schulz, 1987, 1997; Buss, 1997). The question is why viewing amount and formal education correlate. A higher formal education itself cannot be accepted as a theoretically satisfying cause for watching less television. Maybe need for cognition is the answer to this question: Formal education correlates with viewing amount only because formal education correlates with need for cognition, which can be regarded as a theoretically satisfying cause of individual differences with regard to the amount of television viewing.

Research Design

Probably the most prominent factors influencing the amount of television viewing are age and degree of formal education (e.g., Schulz, 1987, 1997; Buss, 1997). Because of the large "explanatory distance" between these sociodemographic variables and the viewing amount, however, neither age nor formal education provides a theoretically satisfying cause of viewing amount differences. To minimize the theoretically unexplained influences of age and formal education, therefore, we decided to choose a sample consisting of students. With regard to age and formal education, students are a very homogeneous group. Thus, our objective was to answer the following question: Why do students, despite being of similar age and having nearly identical levels of formal education, spend different amounts of time watching television?

The central hypothesis of our study is this:

H1: Students watch more television when they have a lower need for cognition.

There are also a number of supplementary hypotheses to be tested. We distinguished between personality variables and variables concerning the life context of the respondents. The first relevant context variable is the time budget that should have a great influence on a person's amount of television viewing. It is also highly plausible that viewing amount differences are further influenced by the distinction between those students who possess a television of their own and those who must share a television with others. A higher viewing amount can also be expected if students have access to cable or satellite programs and therefore can choose among a broader range of television programs.

H2: Students watch more television if they spend less time on work.

H3: Students watch more television if they possess their own television set.

H4: Students watch more television if they have access to cable or satellite programs.

Furthermore it is assumed that students who share an apartment with others watch less television than other students because they automatically encounter more conversation partners within their apartment.

H5: Students watch less television if they share their apartment with others.

Although it is plausible to assume that richer people watch less television because of the availability of more leisure alternatives, one also can argue that the income of students should vary only marginally so that income should not be a factor affecting the viewing amount of students. Thus, this research question arises:

RQ1: Is the viewing amount of students affected by their level of income?

Highly plausible is an effect of the viewing amount of the students' parents on their own viewing amount. Correlations between the viewing amount of schoolchildren and that of their parents are well documented (Eron & Huesmann, 1989). Even within a sample consisting of adults between the age of 20 and 65, Benner (1996, pp. 83–84) found significant correlations between the viewing amounts of respondents and their parents.

H6: Students watch more television the more their parents watch television.

In addition to need for cognition, additional personality variables identified by other researchers as having significant influences on amount of television viewing (see above) were included: life satisfaction, loneliness (instead of the related dissatisfaction with social interactions), and external belief of control. Whereas some researchers have found significant correlations between these personality variables and the viewing amount, though, others have not. As the findings to date have been ambiguous, we want to explore whether or to what degree these variables affect the viewing amount.

RQ2: Does perceived loneliness affect a student's viewing amount?

RQ3: Does life satisfaction affect a student's viewing amount?

RQ4: Does external belief of control affect a student's viewing amount?

The final (and thus fifth) personality variable we included is perceived strain, which has often been regarded as an explanation for a compensatory use of television (e.g., Schulz, 1997). Although this is certainly plausible, we assume that

perceived strain is caused strongly by a high quota of work, resulting in the reality that people suffering from strain have less time to watch television and, therefore, there would not be a positive effect of strain on the amount of viewing.

H7: Perceived strain does not have a positive effect on a student's viewing amount.

H8: The more time a student spends on work, the greater will be his or her level of perceived strain.

We furthermore expect the more abstract phenomenon of life satisfaction to be affected by the more concrete experiences of loneliness, strain, and external belief of control.

H9: The higher a student's level of perceived strain, the lower will be his or her life satisfaction.

H10: The stronger a student's level of perceived loneliness, the lower will be his or her life satisfaction.

H11: The stronger a student's external belief of control, the lower will be his or her life satisfaction.

Finally, we expect the following effects of context variables on personality variables:

H12: The greater a student's income, the higher his or her life satisfaction will be.

H13: The lesser a student's income, the stronger his or her external belief of control will be.

H14: The perceived loneliness of students sharing an apartment with others is lower than the perceived loneliness of other students.

If the assumption of an association between need for cognition and amount of viewing is accurate, then this association also should hold for the students' parents. If the parents watch a great deal of television, one could expect them to have a low need for cognition, which in turn should influence the students' need for cognition via a socialization process or heredity. Thus, need for cognition should be affected (if only indirectly) by the parents' amount of viewing.

H15: A student's need for cognition will be lower the more his or her parents watch television.

By including the aforementioned five personality variables—need for cognition, loneliness, life satisfaction, strain, and external belief of control—all three

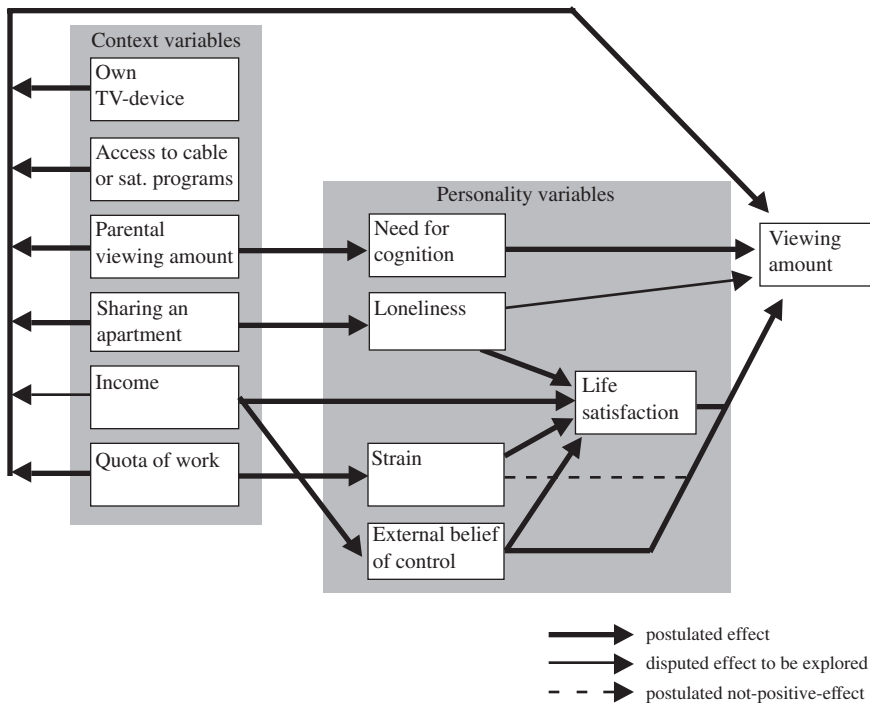


Figure 1. Hypotheses concerning the effects of personality variables and context variables on viewing time.

concepts of escapism have been taken into account. At least in our student sample we expect the individual-psychological escapism, here based on need for cognition, to have the strongest effect on the viewing amount. The social-psychological escapism is here represented by the personality variable of loneliness and the context variable “whether or not sharing an apartment.” Assigned to sociological escapism are income and the personality variables of life satisfaction, strain, and external belief of control.

Figure 1 shows all of the aforementioned hypotheses together. Beyond the depicted hypotheses we will also explore whether sex and age—the two standard biodemographical variables—have an effect on any variables contained in the theoretical model. The illustration also emphasizes that the appropriate statistical technique to test all included hypotheses is path analysis.

A problem with the measurement of the viewing amount using questionnaires is “the biased tendency of respondents when answering, towards social desirability, for which numerous evidence exists. An example is the fact that the viewing amount measured with questionnaires is always smaller than the viewing amount measured with telemetric methods” (Vorderer, 1992, p. 96). In addition to this finding of social desirability, it is conceivable that the respondents make miscalculations while trying to estimate and calculate their average viewing amount. To

help reduce this problem of miscalculation, we employed the following procedure in our questionnaire: To measure the viewing amount, rather than including a single open-ended question, we employed a small table with closed-ended answers of half-hour stages in rows, ranging from *not at all* up to *more than 8 hours*. These preprinted answers are thought to make it easier for the respondents to “admit” large viewing amounts. Respondents were instructed to distribute five crosses in the column marked Monday to Friday and two crosses in the column Saturday and Sunday, referring specifically to the last 2 or 3 months. With this method, we intended to free the respondents from the necessity of calculating an average over the week that we assume to be a main source of the discrepancy between self-reported and telemetrically measured viewing amounts. This method was also used to measure the quota of work. The amount of their parents’ television viewing was estimated by the respondents separately for their mothers and their fathers as well as separately for weekdays and weekends.

Concerning the selection of personality scales, we attached importance to the comparability with previous studies. For measurement of the personality variables strain and life satisfaction, we therefore employed the corresponding subscales of the Freiburger Persönlichkeitsinventar (FPI-R; Fahrenberg, Hampel, & Selg, 1994), which have been already employed by Benner (1996). External belief of control was measured with a secondary scale of the Fragebogen zu Kompetenz- und Kontrollüberzeugungen (FKK; Krampen, 1991) developed out of the IPC-Fragebogen zu Kontrollüberzeugungen (Krampen, 1981), which in turn was used by Benner (1996). Perceived loneliness was measured with a German version of the well-known UCLA Loneliness Scale (Doering & Bortz, 1993). Finally, need for cognition was measured with the aforementioned NFC Scale (Cacioppo & Petty, 1982).

The disadvantage of these personality scales is that they are all quite extensive. We aimed to develop a lean questionnaire, therefore shortening each personality scale to eight items. This was done by choosing those items that reached the highest factor loadings in the corresponding standardization samples. In our questionnaire, respondents were instructed to indicate their agreement with each item on a 6-point Likert scale ranging from *not at all true for me* up to *completely true for me*. As need for cognition has been employed only rarely within mass communication research (at least to our knowledge), we list here the eight items that we used (in their German translations) in our questionnaire:

1. I prefer complex to simple problems.
2. I tend to set goals that can be accomplished only by expending considerable mental effort.
3. I prefer a task that is intellectual, difficult, and important to one that is somewhat important but does not require much thought.
4. I find little satisfaction in deliberating hard and for long hours.
5. I would rather do something that requires little thought than something that is sure to challenge my thinking abilities.
6. Thinking is not my idea of fun.
7. I only think as hard as I have to.

8. Simply knowing the answer rather than understanding the reasons for the answer to a problem is fine with me.

Our sample consisted of 428 students from various disciplines at a huge German university, who live in a household equipped with a television set and who watch television at least half an hour per week. Respondents were recruited in front of canteens during lunchtime and were asked to complete a questionnaire concerning television use by students. They were told that the questionnaire was to be completed autonomously and that it would require approximately 15 minutes to fill out.

The sample consists of 36% women (the overall percentage of women at this university is 42%). The age of the respondents ranged from 19 to 36 years, with a mean of 24.9 years ($SD = 3.0$). The respondents watch an average of 1.9 hours ($SD = 1.2$; min = 0.07; max = 7.57) of television per day (Monday–Sunday), or 114 minutes. To our surprise we found a significant difference between men and women, $F(1, 423) = 20.05$; $p < .001$: Men watch an average of 2.08 hours (125 minutes) of television per day (Monday–Sunday), whereas women watch only 1.56 hours (93 minutes).

The telemetrically measured viewing amount on average per day for German students between the ages of 19 and 36 years during May and June 1997 (the time period corresponding to our question for the past 2 or 3 months) was, according to the GfK-Database, 106 minutes (our sample: 114 minutes). Distinguished by sex, the mean viewing amount was 116 minutes (our sample: 125) for men and 94 minutes (our sample: 93) for women. The comparison between our findings and the representative GfK Data shows that our method for measuring the viewing amount apparently successfully avoided the otherwise typical underestimation of the amount of television viewing when measured with self-report questionnaires.

By factor analysis, we computed personality variables out of their corresponding items. Beforehand we eliminated 3 out of 40 items as this increased the internal consistency (measured as Cronbach's alpha) of the personality variables. The personality variable loneliness reached with all its eight items a Cronbach's alpha of .82; life satisfaction with six items, .81; strain with all eight items, .82; need for cognition with eight items, .72; and, finally, external belief of control with seven items, a mere .59. Before conducting path analysis, we tested to see whether the personality variables were correlated significantly with the respondents' viewing amount as a child (estimated by the respondents on a six-point scale ranging from *very little* up to *very much*) and at the age of 18 (estimated by the respondents in hours). If they were correlated, it would not be sensible to regard the personality variables as a cause of the current viewing amount; they instead would have to be regarded as consequences of previous television consumption. Only strain, however, was significantly correlated with viewing amount as a child ($r = -.10^*$). All other correlations are not significant they do not even show a trend. Thus, these findings do not support the hypothesis that the variances within the personality variables must be regarded as a consequence of the viewing amount during childhood or adolescence.

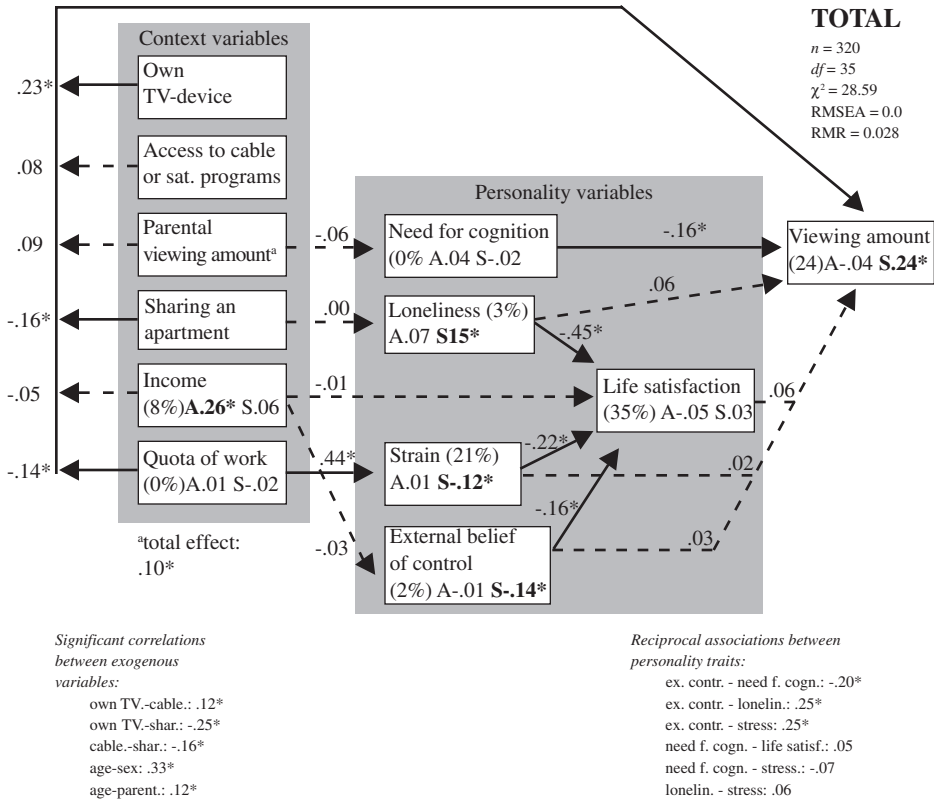


Figure 2. Effects of context variables, personality variables, age, and sex on viewing time.

Results

The following path analyses are based on a correlation matrix consisting of the viewing amount, the six context variables, the five personality variables, the demographic variables age, and sex, and seven television-viewing motives. This correlation matrix was computed with the PRELIS software, which is a part of LISREL (Joereskog & Soerbom, 1996a, 1996b). Missing values were excluded listwise, decreasing the sample size from 428 to 320 cases. For the purpose of comparison, analyses were also carried out based on a correlation matrix with pairwise deletion of missing values, showing negligible differing results.

The path analyses were conducted blockwise. In the first block we entered the context variables that already explained 16% of the variance within the viewing amount. With the additional entering of the personality variables, the explanation of viewing amount variance increases to 19%. In a third step we entered age and sex, resulting in an explained viewing amount variance of 24%. Within this third step we simultaneously explored the effects of age and sex on the viewing amount

as well as on all other variables included in the model, except the dichotomous variables and the parental viewing amount. Out of this extensive model we then developed a model, excluding nonsignificant paths, in accordance with the postulate of parsimony.

We will show here only the extensive model, including all variables, and the end model in accordance with the postulate of parsimony (for more details, see Henning, 1998). Figure 2 shows the results of the extensive model.

Within the six context variables, having one's own television device has the strongest effect on the viewing amount, followed by quota of work, the distinction between students sharing an apartment and those not, and the parental viewing amount. No significant effects on the viewing amount were found for access to cable or satellite programs or income.

As regards RQ1, there is no significant effect of income on viewing amount. H4 also was rejected: The effect of access to cable or satellite programs is not significant in this model. This can be explained statistically by the fact that its significant bivariate correlation with viewing amount dissolves in the stronger effect of own television device, with which it is significantly correlated.

All other hypotheses concerning the effects of context variables on viewing amount were confirmed (H2, H3, H5, H6). The total effect of the parental viewing amount, although in itself significant, is composed of its direct effect and its indirect effect via need for cognition, which both, when taken alone, are not significant (H15 rejected).

Within the block of personality variables, the central hypothesis of the negative effect of need for cognition on the viewing amount (H1) is clearly confirmed. Neither loneliness, life satisfaction, nor external belief of control have significant effects on the viewing amount (answers on questions RQ2, RQ3, RQ4), and strain has no significant effect on the viewing amount (H7 confirmed).

Thirty-five percent of the variance within life satisfaction is explained. The assumed effects of strain, loneliness, and external belief of control on life satisfaction (H9, H10, H11) are confirmed, with loneliness having the strongest effect. Twenty-one percent of the variance within strain is explained by the quota of work (H8 confirmed). For the purpose of this study, however, this interesting interconnection of personality variables is meaningless, as none of these variables has a significant effect on the viewing amount. Still, it should be mentioned that external belief of control shows reciprocal associations with need for cognition, loneliness, and strain. Thus external belief of control is correlated with all of the personality variables included in this study. Nevertheless, the only personality variable that it affects in a way that can be interpreted as causal is life satisfaction.

Income has neither a significant effect on life satisfaction nor on external belief of control (H12 and H13 rejected). Also contrary to our expectations, sharing an apartment with others does not affect loneliness (H14 rejected).

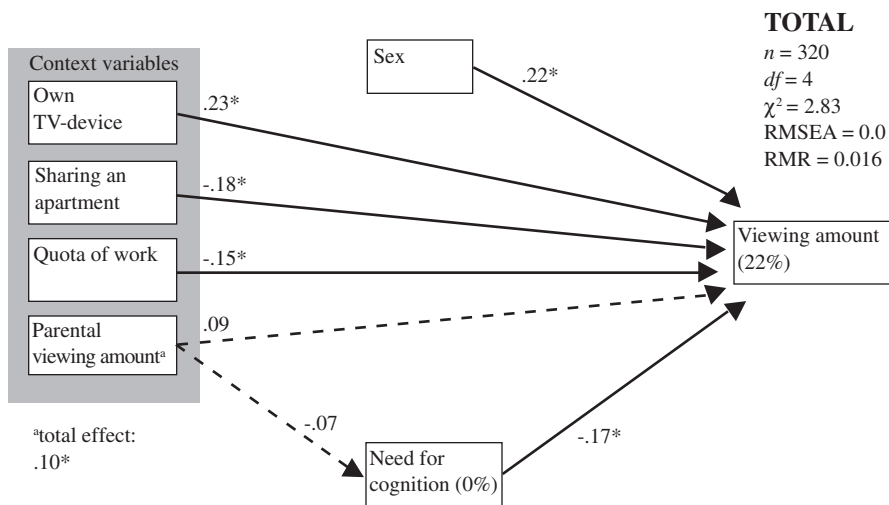
The only variable that is significantly affected by age is income: Older students have a higher income than younger ones. Perhaps they have better paying jobs. As all other variables are not affected by age, one may conclude that our goal to minimize the correlation between age and viewing amount has been achieved.

To our surprise, sex has a significant effect on the viewing amount: Male students watch more television than female students. Men also perceive themselves as being more lonely, whereas women rate higher in external belief of control and in strain. These findings do not contribute, however, to answering the question of why men watch more television than women, as neither loneliness, external belief of control, nor strain have a significant effect on the time spent watching television. Contrary to our expectation, the differences in viewing amount between men and women did not dissolve into indirect effects via other variables. In our sample, sex is actually the strongest predictor of the viewing amount.

In this article, we can mention only marginally a further step in our analysis, in which we entered, in addition to the extensive model described above, seven television-viewing motives adapted from Greenberg (1974), Rubin (1981, 1983, 1984), and Schorr-Neustadt (1994). We used only three items per viewing motive, which still yielded satisfactory internal consistency (measured as Cronbach's alpha) in five out of seven cases: pastime (Cronbach's $\alpha = .81$), entertainment (.73), companionship (.80), escape or to forget (.61), relaxation (.77), social learning (.59), and information (.80). We simultaneously tested the effects of these motives on the viewing amount, as well as the effects of all variables included in the extensive model on the motives. This results in a very complex model that cannot be depicted here (for further details, see Henning, 1998). The main findings are that only pastime (path coefficient .23*) and entertainment (.17*) affect the viewing amount significantly. The viewing motives increase the explanation of viewing amount variance from 24% to 36%. Thus, more than one third of the variance within the viewing amount can be statistically explained with this model. We regard this, however, as theoretically unsatisfying, as we can explain only 16% of the variance within the viewing motive pastime and just 11% of the variance within entertainment. Still, it is very important to mention that the only personality variable that affects these two motives is need for cognition (effect on pastime, $-.24^*$; on entertainment, $-.17^*$). Need for cognition additionally affects three further motives: companionship ($-.17^*$), relaxation ($-.17^*$), and to forget ($-.15^*$). Thus, it is possible to show that people high in need for cognition watch less television because they feel a lower need to pass their time or to be entertained by means of watching television. All other personality variables affect, at best, only two motives and only those that in turn do not affect amount of viewing.

In the next step we developed the end model in accordance with the postulate of parsimony. Therefore, all variables that do not have a significant effect on the viewing amount were eliminated: access to cable or satellite programs, income, loneliness, life satisfaction, strain, external belief of control, and age. The resulting end model still explains 22% of the variance within the viewing amount. Figure 3 shows this end model.

As can be seen in the model, 22% of the individual differences in the amount of television viewing by students is explained with only six variables. Two of these variables emphasize the almost trivial fact that the viewing amount is affected by the existence of one's own television set and by the quota of work. Though one can regard these effects as trivial, the findings still clearly show that

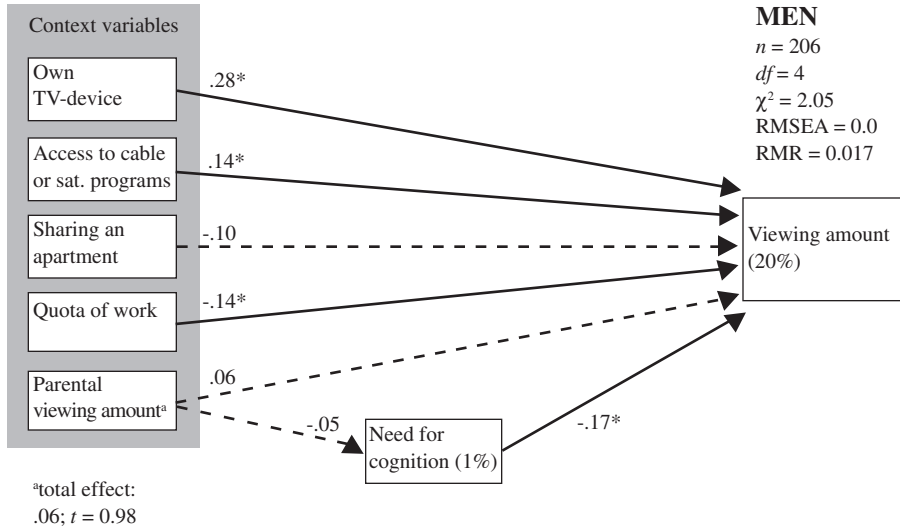


Significant correlations between exogenous variables:
 shar. - own TV: -.25*

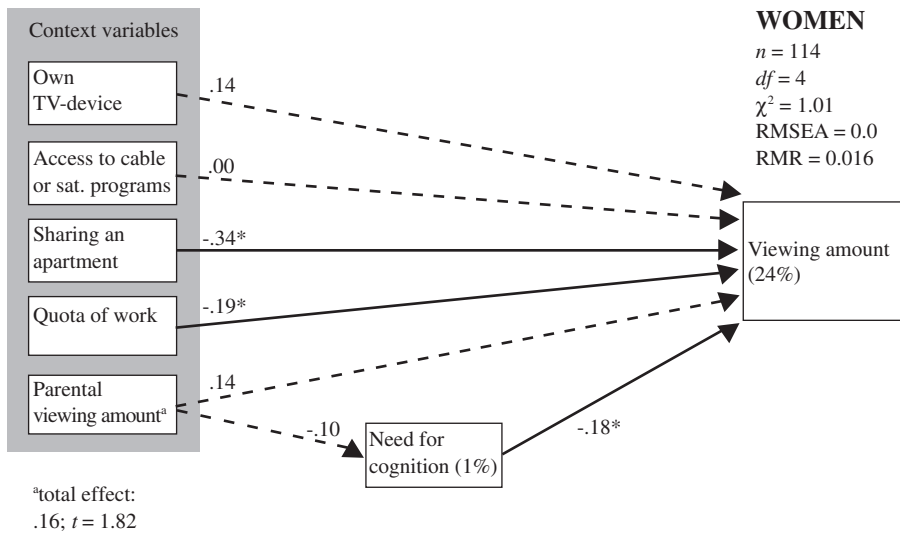
Figure 3. End model in accordance with the postulate of parsimony.

these effects have to be taken into account when one attempts to explain individual differences in the viewing amount. In this model, the existence of one's own television set has the strongest effect on the amount of television viewing. This end model once again confirms our central hypothesis: Students watch more television when they have a lower need for cognition. The weakest effect on the viewing amount in this model is the effect of the parental viewing amount. Nevertheless, its total effect—composed of its direct effect and its indirect effect via need for cognition—is significant. We interpret this as a socialization effect of the parental viewing amount on one's own viewing amount. Still, it is also conceivable that this association is not socialized but indirectly inherited via personality traits that affect television viewing. Furthermore, the association also could be an artifact resulting from the fact that the parental viewing amount was estimated by the students and not by their parents. Finally, the model also confirms the hypothesis that students sharing their apartment with others watch less television.

The five effects just mentioned can be regarded as theoretically explainable causes of viewing amount differences that do not apply to the sixth effect of the end model, namely the effect of sex: Male students watch more television than female students. The comparison of this finding with the telemetrically measured GfK Data (see above) shows (with high likelihood) that this sex difference cannot be put down to a random bias of our sample. Sex retains its direct effect on the viewing amount—we were not able to dissolve this direct effect into indirect effects, neither via context or personality variables nor via television-viewing motives.



Significant correlations between exogenous variables:
 shar. - own TV: -.26*; shar. - cable: -.15*



Significant correlations between exogenous variables:
 shar. - own TV: -.26*; shar. - cable: .24*

Figure 4. End models separated by sex.

In our final step of analysis we therefore attempted, in a sheer explorative manner by means of chi-square differences tests, to find associations that differ significantly in their strength between men and women. Unfortunately, we did not find a single path that is significantly different for men and women while also being relevant for viewing amount differences. Still, we found a couple of paths that tend to differ, although not significantly, between the sexes. In Figure 4, they are depicted in path diagrams, which again are built in accordance with the postulate of parsimony. They consist only of such variables that have a significant total effect on the viewing amount for at least one of the two sexes. We therefore included access to cable or satellite programs here, as this variable has a significant effect on the viewing amount of men, but not on the viewing amount of women (still, the difference between the effect strengths for men and women is insignificant).

The two path diagrams show that the viewing amount of men is affected mainly by the existence of one's own television set and access to cable or satellite programs. Perhaps men are more attracted than women by the additional offers on cable and satellite programs. The viewing amount of women is mainly affected by the distinction between those who share their apartment with others and those who do not. Perhaps sharing one's apartment satisfies typically female communication needs, which women who do not share their apartment must attempt to satisfy by means of watching television.

To almost the same degree, the viewing amount of both sexes is affected by the quota of work and need for cognition. For women, the parental viewing amount achieves a somewhat stronger effect on the viewing amount than for men. It is only because of the rather small sample size that this effect is insignificant within the women's sample (as shown above, within the total sample the effect of parental viewing amount is significant).

Discussion

Our objective was to contribute to the explanation of differences among individuals with regard to their time spent viewing television. We were able to explain 24% of the variance in viewing amount, although the prominent but theoretically unsatisfying effects of age and formal education (see above) were excluded by means of choosing a student sample. Two important variables for this explanation of variance were the existence of one's own television set and the quota of work that can be regarded as the fundamental framework of the amount of television viewing. It was also possible to demonstrate a significant, albeit small, effect of the parental viewing amount on one's own viewing amount. The more parents are estimated by their children to watch television, the more the children report watching television as well.

Still, the most important finding of this study is the significant negative effect of need for cognition on the viewing amount. We interpret this effect as a manifestation of individual-psychological escapism. Thus, widening the originally socio-logically based concept of escapism with an individual-psychological component

largely unaffected by the social setting, proved to be a theoretical as well as an empirical enrichment. The resulting negative effect of need for cognition on the viewing amount, measured as path coefficient, reached “only” a strength of $-.17^*$, which is certainly not overwhelming, but this somewhat modest strength has to be considered in relation to the nonsignificant effects of the other personality variables included in our study (i.e., life satisfaction, loneliness, strain, and external belief of control), which are all quite prominent and commonly assumed predictors of escapist television use. The negative effect of need for cognition remained stable in our multivariate path analyses, even when separated by sex. Most importantly, we were able to build a causal chain from need for cognition via the viewing motives of pastime and entertainment, to the amount of television viewing.

No confirmation was found in this study for the notion of sociological escapism. Life satisfaction, external belief of control, strain, and income showed no significant effects on the viewing amount. At least in our student sample all these variables have no relevance for individual differences within the viewing amount. Evidence for the notion of social-psychological escapism comes from the significant effect of sharing an apartment with others. Contrary to our expectations, it was not possible to dissolve this effect into an indirect effect via loneliness. Although this means that students who share an apartment with others do not feel less lonely, it remains plausible to assume that they watch less television because they automatically have more opportunities to socialize. Sharing an apartment with others has a stronger effect on the viewing amount of women than of men, but this difference is insignificant and thus cannot explain the surprising effect of sex on the viewing amount. The same is true for the existence of one’s own television set and the access to cable or satellite programs, which have a stronger effect on the viewing amount of men than of women. Completely independent of sex influences is the negative effect of need for cognition. Both female or male students watch more television when they enjoy thinking less. Following the escapist argument, people with nothing to do are likely to escape with television according to how unpleasant they find what is left for them to do (namely thinking) when they have nothing else to do.

In addition to this escapist argument, it is also possible to interpret the findings of this study in an “attractionistic” way. Instead of the repulsion of negative feelings or unsatisfying life circumstances, on which the escapist argumentation is based, the attractionistic perspective focuses on the force of attraction of television. Concerning individual differences within the viewing amount, one then would have to ask why different people are attracted to television to different degrees, no matter if they previously have experienced negative feelings or not. From this point of view, it is conceivable that people who are high in need for cognition are less attracted to watching television because television distracts them and makes it more difficult for them to concentrate on their own thoughts. As such, need for cognition would be a counterforce to the attraction of television, and it would be unnecessary to argue that people low in need for cognition are pushed toward television viewing as a result of suffering from negative feelings while having nothing to do. Alternately stated: Escapism means that people low in need for cogni-

tion are more strongly pushed toward television than those who are high in need for cognition, whereas attractionism means that people high in need for cognition are less attracted by television than those who are low in need for cognition.

The escapist and the attractionistic perspectives certainly do not exclude one another; they can easily be combined to a two-component model of television use. One component is the repulsion of negative feelings or bad moods. If this force effects an individual, he or she is repulsed by the bad mood, that is, he or she escapes it. In such a case, the individual does not necessarily have to watch television. He or she will watch television only if he or she finds watching television to be attractive, which occurs if the individual is attracted by television after he or she has been repulsed by a bad mood. It is certainly also possible, however, to be attracted by television without having been repulsed by a bad mood in the first place. Nevertheless, in most cases, the repulsion due to bad moods will increase the force of attraction of television. Concerning the question of individual differences in amount of television viewing, one can argue that a really large viewing amount results only if the force of attraction of television is intensified by the repulsion force of bad moods.

Further research on individual differences within the viewing amount should increasingly take into account the attractionistic perspective. It then will be necessary to take into account the program contents disregarded in our study. This for instance, should help clarify why the access to cable and satellite programs tends to have a stronger effect on the viewing amount of men than of women. Further research also should take more precisely into account the time available for watching television. As our study has shown that the quota of work is a strong predictor of the viewing amount, it is plausible to assume that a more precise empirical handling of leisure time will be worthwhile. Satisfying leisure activities can provide a noteworthy counterforce to the force of attraction of television. Perhaps it thus would be possible to explain the fact that sharing an apartment tends to have a stronger effect on the viewing amount of women than of men: Do women, when sharing an apartment, automatically spend more time with their apartment mates than do men? Finally, we wish to emphasize once again that our study is based on a student sample, in which differences within need for cognition are probably smaller than in the population. Thus, there is reason to hope that, in a sample extended beyond the student population, the negative effect of need for cognition on the viewing amount will prove to be even stronger than in this study. Then need for cognition may indeed be the theoretical explanation of the oft-cited association between formal education and the amount of television viewing.

References

- Benner, S. (1996). *Persoenlichkeit und Fernsehen. Eine Studie ueber persoenlichkeitsspezifischen Medien- und insbesondere Fernsehkonsum unter besonderer Beruecksichtigung der "Vielseher."* Unpublished master's thesis, University of Cologne, Cologne, Germany.
- Buss, M. (1997). Fernsehen in Deutschland: Vielseher 1979/80 und 1995 im Vergleich. In H. Fuenfgeld & C. Mast (Eds.), *Massenkommunikation. Ergebnisse und Perspektiven* (pp. 125–154). Opladen, Germany: Westdeutscher Verlag.

- Cacioppo, J. T., & Petty, R. E. (1982). The need for cognition. *Journal of Personality and Social Psychology*, 42, 116–131.
- Cacioppo, J. T., Petty, R. E., Feinstein, J. A., & Jarvis, W. B. G. (1996). Dispositional differences in cognitive motivation: The life and times of individuals varying in need for cognition. *Psychological Bulletin*, 119, 197–253.
- Cohen, A. R., Stotland, E., & Wolfe, D. M. (1955). An experimental investigation of need for cognition. *Journal of Abnormal and Social Psychology*, 51, 291–294.
- Darschin, W. (1999, May). Tendenzen im Zuschauerverhalten. *Media Perspektiven*, 154–166.
- Doering, N., & Bortz, J. (1993). Psychometrische Einsamkeitsforschung: Deutsche Neukonstruktion der UCLA Loneliness Scale. *Diagnostica*, 39, 224–239.
- Eron, L. D., & Huesmann, L. R. (1989). Fernsehen, Familie und Kultur. In J. Groebel & P. Winterhoff-Spurk (Eds.), *Empirische Medienpsychologie* (pp. 151–167). Munich, Germany: Psychologie Verlags Union.
- Fahrenberg, J., Hampel, R., & Selg, H. (1994). *Das Freiburger Persönlichkeitsinventar: FPI. Revidierte Fassung FPI-R und teilweise geänderte Fassung FPI-A1*. Göttingen, Germany: Hogrefe.
- Fischer, W. (1997). Was und wieviel wählen Zuschauer aus dem Fernsehangebot aus? In E. Bieger, W. Fischer, B. Gilles, C. Hoeller, S. Mueller, & B. Traum-Peters (Eds.), *Den Alltag erheben. Wie die Zuschauer das Fernsehen mit ihrem Leben verknüpfen* (pp. 40–51). Cologne, Germany: Katholisches Institut fuer Medieninformation.
- Greenberg, B. S. (1974). Gratifications of television viewing & their correlates for British children. In J. G. Blumler & E. Katz (Eds.), *The uses of mass communication: Current perspectives on gratifications research* (pp. 71–92). Beverly Hills, CA: Sage.
- Groeben, N., & Vorderer, P. (1988). *Leserpsychologie: Lesemotivation - Lektürewirkung*. Muenster, Germany: Aschendorff.
- Henning, B. (1998). *Ablenken lassen oder nachdenken müssen. Das Denkbedürfnis als Ursache von interindividuellen Unterschieden in der Fernsehnutzungsdauer*. Unpublished master's thesis, Hochschule für Musik und Theater Hannover, Hannover, Germany.
- Joereskog, K., & Soerbom, D. (1996a). *LISREL 8: Structural equation modeling with the SIMPLIS command language*. Chicago: Scientific Software International.
- Joereskog, K., & Soerbom, D. (1996b). *PRELIS 2: User's reference guide*. Chicago: Scientific Software International.
- Krampen, G. (1981). *IPC-Fragebogen zu Kontrollueberzeugungen*. Göttingen, Germany: Hogrefe.
- Krampen, G. (1991). *Fragebogen zu Kompetenz- und Kontrollueberzeugungen (FKK). Handanweisung*. Göttingen, Germany: Verlag fuer Psychologie.
- Kubey, R. W. (1986). Television use in everyday life: Coping with unstructured time. *Journal of Communication*, 36(3), 108–121.
- Maddi, S. R., Kobasa, S., & Hoover, M. (1979). An alienation test. *Journal of Humanistic Psychology*, 19, 73–76.
- Morgan, M. (1984). Heavy television viewing and perceived quality of life. *Journalism Quarterly*, 61, 499–504.
- Murphy, G. (1947). *Personality: A biosocial approach to origins and structure*. New York: Harper.
- Perloff, R. M., Quarles, R. C., & Drutz, M. (1983). Loneliness, depression and the uses of television. *Journalism Quarterly*, 60, 352–356.

- Rubin, A. M. (1981). An examination of television viewing motivations. *Communication Research, 8*, 141–165.
- Rubin, A. M. (1983). Television uses and gratifications: The interactions of viewing patterns and motivations. *Journal of Broadcasting, 24*, 37–51.
- Rubin, A. M. (1984). Ritualized and instrumental television viewing. *Journal of Communication, 34*(3), 67–77.
- Rubin, A. M. (1985). Uses of daytime television soap operas by college students. *Journal of Broadcasting & Electronic Media, 29*, 241–258.
- Schorr-Neustadt, M. (1994). *Fernseherealitaet und Fernseh motive. Auf der Jagd nach Einschaltquoten: Reality-TV*. Unpublished doctoral thesis, University of Salzburg, Salzburg, Austria.
- Schulz, W. (1987). Determinanten und Folgen der Fernsehnutzung. In J. Groebel & M. Grewe-Partsch (Eds.), *Mensch und Medien. Zu Ehren von Hertha Sturm* (pp. 9–32). Munich, Germany: KG Saur.
- Schulz, W. (1997, February). Vielseher im dualen Rundfunksystem. *Media Perspektiven, 92*–102.
- Vitouch, P. (1993). *Fernsehen und Angstbewaeltigung. Zur Typologie des Zuschauerhaltens*. Opladen, Germany: Westdeutscher Verlag.
- Vorderer, P. (1992). *Fernsehen als Handlung. Fernsehfilmrezeption aus motivationspsychologischer Perspektive*. Berlin, Germany: Edition Sigma.
- Vorderer, P. (1996). Rezeptionsmotivation: Warum nutzen Rezipienten mediale Unterhaltungsangebote? *Publizistik, 41*(3), 310–326.