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Mass media advertising: Information or wallpaper?

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A1: Results meta-analysis

Table A1.1: Studies meta-analysis with respect to avoidance and attention

source:	medium:	method:	sample:
LEE93	videocassettes	survey (telephone)	n=200
MIT94	television & print	panel (consumer-)	n=203
BUC91	television vs. radio	experiment	n=80 undergraduates
BAU68	television & print	survey (face-to-face, two parts)	n=1846 & n=1536
PFA90	television & print	experiment	n=716 undergraduates
GOO93	television	experiment	n=302
INT96	television	panel (people meter)	n=1000 households
KRU95	television	observation (in-home)	n=62
INT93	television	diary	b=564
ABE90	television	various methods	small samples
HOL95	television	survey (time series)	100 commercials
KIT85	television	survey (face-to-face)	n=100
GRE88	television	survey	n=4000
INT95	television	diary	n=696
DAN95	television	panel (people meter)	n=1028 (440 homes)
CRO92	television	observation (camera) & experiment	n=32 students & n=83 adults
CAP86	television	observation (1) & survey (2)	n=500 households & n=16000
BUN82	television	analysis of electricity figures	190 observations (one week)
BAK95	television	survey (mail)	n=?
AGO89	television	survey	n=4984
HEE85	television	survey	n=1500 adults, 400 children
SAP89	television	experiment	n=86+35
YOR85	television	survey	n=80
ZUF93	television	panel (Nielsen scanner data)	n=584 households
WEI95	television	experiment	n=180 households
HOR86	television	observation by students	n=160
KOV95	television	experiment (semi-)	n=69
TYL95	television	observation by students	n=253
ROY96	television	survey	n=153
RI95	television	survey (telephone)	n=500
OOM93	television	panel (people meter data)	n=850 households
OLN91	television	experiment (face-to-face)	146 commercials
LAN97	television	?	?
LAA91	television	panel (people meter data)	n=400
WAL94	television	secondary analysis of copy-test data	n=190 & n=120
ABE91	radio (car)	survey & battery-tape	n=101
HOL89	print (free local papers)	focus groups	n=40
CEB85	print	face-to-face survey	n=775
JAM92	print	experiment	n=304
BRO90	print	copy-test & face-to-face survey	n=307
BOG88b	print (newspapers)	observation & face-to-face survey	n=4
TMP96	print (newspapers)	copy-test (face-to-face/CAPI)	n=1013

(Table 1.1 continued)

(source)	(medium)	(method)	(sample)
BOG88a	print (newspapers)	secondary analysis & phone	n=7296
BOG88c	print (newspapers)	observation & face-to-face survey	n=10
BOG88d	print (newspapers)	eye-tracking & face-to-face survey	n=12
CEB94	print (newspapers)	survey	n=222+742
MOL91	print (magazines)	face-to-face survey (RRO)	various, in article: n=94
CEL88	print (magazines)	experiment	n=136
BUR89	general	survey	n=176 married women
ROG93	general	survey	n=400 households

first column: the letters are the first three letters of the first author, followed by the last two figures of the publication year, for example: **BAU68** = Bauer & Greyser, 1968; third column: n = number of respondents.

Table A1.2: Variables related to avoidance of radio or television commercials

<p>group of variables: user characteristics</p>	<p>measured variables and references:</p> <p>general user characteristics:</p> <p>age (Cronin & Menelly, 1992; Danaher, 1995; Heeter & Greenberg, 1985; Van de Laar & Breemhaar, 1991; Sapolsky & Forrest, 1989; Tyler Eastman & Newton, 1995)</p> <p>sex (Cronin & Menelly, 1992, Heeter & Greenberg, 1985; Van de Laar & Breemhaar, 1991; Royne Stafford & Stafford, 1996; Tyler Eastman & Newton, 1995)</p> <p>education (Van de Laar & Breemhaar, 1991; Zufryden, Pedrick & Sankaralingam, 1993)</p> <p>income (Zufryden, Pedrick & Sankaralingam, 1993)</p> <p>household type (Zufryden, Pedrick & Sankaralingam, 1993)</p> <p>avoidance in general (other media) (Lanigan, 1997)</p> <p>price-consciousness (Lanigan, 1997)</p> <p>amount of television use (Van de Laar & Breemhaar, 1991)</p> <p>affinity with television (Royne Stafford & Stafford, 1996)</p> <p>evaluation of advertising:</p> <p>attitude to television advertising (Van de Laar & Breemhaar, 1991; Mittal, 1994), or advertising on video tapes (Lee & Katz, 1989)</p> <p>irritation (television advertising) (Bakker, 1995; Research International, 1995)</p> <p>statements about (television) advertising: boredom, bewilderment, curiosity, overload, patronise (Lanigan, 1997; Royne Stafford & Stafford, 1996)</p>
<p>situation of use</p>	<p>equipment: pre-set station selector (radio: Abernethy, 1991), cable, satellite, video or remote control device (television: Capocasa & Lucchi, 1986; Danaher, 1995; Heeter & Greenberg, 1985; Horsley, 1986; Kitchen, 1985; Van de Laar & Breemhaar, 1991; Lanigan, 1997; Research International, 1995; Sapolsky & Forrest, 1989; Zufryden, Pedrick & Sankaralingam, 1993)</p> <p>temporal (television): time of the evening (Intomart, 1996; Oomens, Roest & Vaessen, 1993), course of the evening (Capocasa & Lucchi, 1986), day of the week (Oomens, Roest & Vaessen, 1993)</p> <p>number of other television viewers (Intomart, 1996)</p>
<p>medium characteristics</p>	<p>scheduling:</p> <p>program variables (television): program type (Capocasa & Lucchi, 1986; Danaher, 1995; Intomart, 1996; Oomens, Roest & Vaessen, 1993; Tyler Eastman & Newton, 1995), popularity program (Bunn, 1982; Intomart, 1996; Van de Laar & Breemhaar, 1991), age targeting (program) (Intomart, 1996)</p> <p>break variables (television): break type (Capocasa & Lucchi, 1986; Cronin & Menelly, 1992; Horsley, 1986; Intomart, 1996; Oomens, Roest & Vaessen, 1993; Sapolsky & Forrest, 1989; Tyler Eastman & Newton, 1995), number of ads in a break (Danaher, 1995), ad at the end of a break (Cronin & Menelly, 1992), break length (Intomart, 1996; Oomens, Roest & Vaessen, 1993)</p> <p>ad content:</p> <p>familiarity television commercial (Sapolsky & Forrest, 1989)</p>

Table A1.3: Variables related to attention to advertising in various media

<p>group of variables: user characteristics</p>	<p>measured variables and references: general user characteristics: sex (Bauer & Greyser, 1968; Burns & Foxman, 1989, Cebuco, 1985; Hollander & Renckstorf, 1989; Horsley, 1986) age (Bauer & Greyser, 1968; Burns & Foxman, 1989, Intomart, 1995) education (Bauer & Greyser, 1968; Burns & Foxman, 1989) income (Bauer & Greyser, 1968; Burns & Foxman, 1989) medium use (Bauer & Greyser, 1968) price-consciousness (Cebuco, 1985) product use or intention to buy (Bogart & Tolley, 1988) evaluation of advertising: attitude with respect to television advertising (Bauer & Greyser, 1968; Burns & Foxman, 1989), print advertising (Cebuco, 1985) or video advertising (Lee & Katz, 1993) irritation (television advertising: Bakker, 1995; James & Kover, 1992) useful information in print advertising (Bronner & Verzijden, 1990; Hollander & Renckstorf, 1989) learn about new products (television advertising: James & Kover, 1992) evaluative judgements of specific advertisements: prior affect for television commercials (Goodstein, 1993), felt involvement with magazine ads (Celci & Olson, 1988) evaluations of television commercials: entertainment, usefulness, curiosity (Olney, Holbrook & Batra, 1991) emotional ratings of television commercials: pleasure and arousal (Olney, Holbrook & Batra, 1991) Attitude towards the ad (Aad) or likeability with respect to television commercials (Goodstein, 1993; Walker & Dubitsky, 1994)</p>
<p>situation of use</p>	<p>temporal: day of the week, time (television: Horsley, 1986)</p>
<p>medium characteristics</p>	<p>scheduling: (television) program type (Horsley, 1986; Intomart, 1996) break variables: break type (television: Horsley, 1986; Kitchen, 1985; Intomart, 1996, Yorke & Kitchen, 1985), ad position (radio: Abernethy, 1991), break length (television: Intomart, 1996), break other channel (television: Intomart, 1996) (television) channel type (Horsley, 1986; Intomart, 1993, 1995) position (magazine or newspaper): Van der Molen & Robben, 1991; TMP, 1996) ad content: typicality (Goodstein, 1993) or uniqueness (Olney, Holbrook & Batra, 1991) of television commercial size of print advertisement (Cebuco, 1985; Van der Molen & Robben, 1991; TMP, 1996) (television) commercial appeals (Olney, Holbrook & Batra, 1991), brand appeals in television commercials (Goodstein, 1993) or print advertisements (Bogart & Tolley, 1988) colour in (print) advertisement (Van der Molen & Robben, 1991; TMP, 1996)</p>

Table A1.4: Variables related to evaluation of advertising

group of variables:	measured variables and references:
general beliefs	<p>beliefs with respect to the execution of advertisements (Alwitt & Prabhaker, 1992, 1994; Bauer & Greyser, 1968; Ducoffe, 1995, 1996; Mittal, 1994; Pollay & Mittal, 1993)</p> <p>beliefs about deception, unrealistic, corrupt values (Alwitt & Prabhaker, 1992, 1994; Bauer & Greyser, 1968; Pollay & Mittal, 1993; Sikkema & Soels, 1994; Sikkema, 1996)</p> <p>statements: 'there is too much advertising', and 'it is repeated too often' (Alwitt & Prabhaker, 1992, 1994; Bakker, 1995; Bauer & Greyser 1968; Ducoffe, 1995, 1996); 'advertising is offensive' (Alwitt & Prabhaker, 1992, 1994; Anderson, Englebow & Becker, 1978; Bauer & Greyser, 1968; Pollay & Mittal, 1993)</p> <p>beliefs with respect to economic benefits (Alwitt & Prabhaker, 1992, 1994; Anderson, Englebow & Becker, 1978; Bauer & Greyser, 1968; Pollay & Mittal, 1993)</p>
personal beliefs (functions)	<p>entertainment (Alwitt & Prabhaker, 1992; Bakker, 1995; Bauer & Greyser, 1968; Ducoffe, 1995, 1996; Mittal, 1994; Pollay & Mittal, 1993; Sikkema & Soels, 1994; Sikkema, 1996)</p> <p>information (Alwitt & Prabhaker, 1992, 1994; Bauer & Greyser, 1968; Ducoffe, 1995, 1996; James & Kover, 1992; Mittal, 1994; Pollay & Mittal, 1993; Sikkema & Soels, 1994; Sikkema, 1996)</p> <p>affirmation of value (Alwitt & Prabhaker, 1992)</p> <p>social learning/contact (Alwitt & Prabhaker, 1992; Pollay & Mittal, 1993; Mittal, 1994)</p>
general user characteristics	<p>age (Alwitt & Prabhaker, 1992, 1994; Bauer & Greyser, 1968; Burns & Foxman, 1989; Hoek & Gendall, 1994; Silman & Samuels, 1995)</p> <p>sex (Bauer & Greyser, 1968; Hoek & Gendall, 1994)</p> <p>education (Burns & Foxman, 1989)</p> <p>income/social status (Alwitt & Prabhaker, 1992; Alwitt & Prabhaker, 1994; Bauer & Greyser (1968); Burns & Foxman, 1989; Silman & Samuels, 1995)</p> <p>media use (ITV viewing, reading press; Silman & Samuels, 1995)</p> <p>program involvement/liking (Alwitt & Prabhaker, 1992, 1994; Tavasolli, Shultz II & Fitzsimons, 1995)</p> <p>number of television sets in the house (Alwitt & Prabhaker, 1992)</p> <p>product use (Bauer & Greyser, 1968; Mittal, 1994)</p>
medium characteristics	<p>pacing, intrusiveness of messages (Bauer & Greyser (1968); Bronner & Verzijden, 1990; Mittal, 1994)</p> <p>ad format, frequency (Alwitt & Prabhaker, 1994)</p>

A2: Topic list Study I

Instruction: start the interview with an introduction and questions on general medium use (1). If necessary, name a medium (every interview a different medium). Then, ask about advertising in general (2) and in the context of the described media (3). Sequence depends on the interviews (lv. = Interviewee).

[1] Topics with respect to media use

- ✓ what media/titles/programs, how often
- ✓ when (moments, situations)
- ✓ why (habits, reasons for use, habits, influence of others, upbringing or education, friends or colleagues, history of use, recent changes in use)
- ✓ with whom (social context)
- ✓ difficult to do without? (involvement, affinity with medium)

[2] Topics with respect advertising in general

- ✓ ask lv. to describe advertising (Postbus51 different?)
- ✓ ask lv. to describe how she/he deal with advertising (behaviour: activity or selection, such as skipping, scanning, zapping, duration, time, frequency, intensity: often or never, attention, habit, regularity) (Note: when difficult for lv. skip to advertising in the media they use, see 3)
- ✓ why (reasons, motives, functions)
- ✓ ask lv. for (examples of) specific moments, situations, people, media, campaigns
- ✓ personal opinion on advertising in general (+ reason), opinions of others, pros and cons advertising (general beliefs)
- ✓ social use (personal situation, talking with others)

[3] Topics with respect advertising in specific media

- ✓ ask how lv. sees advertising in general (behaviour, reasons, motives, function of advertising in these media, liking or disliking, social context)
- ✓ check for magazines, television, newspapers, radio, outdoor, mail
- ✓ differences between media with respect to advertising in these media

A3: Main questions Study II

(part of the CATI questionnaire for television)

- [Q.1] I would like to ask you a few questions about watching television. How many days per week do you watch television, on average?
- [Q.2] And when you watch television, for how many hours or minutes are you doing this, on average?
- [Q.3] When was the last time you were watching television? [Instruction: 'last time' includes the day of the interview. 'Watching' can be explained as "it is not important how attentive you were whilst watching. It is about the opportunity you had to see what was on the screen".]
- [Q.4 to Q.10] [Extra questions about this last moment of medium use: at home or somewhere else, with whom, why, for how long and with attention or not.]
- [Q.11] [If the medium is used for at least one minute] You were describing the number of hours/minutes you were watching television. Could you give an estimation of the number of commercials you noticed during this morning/afternoon/evening? [Instruction: allowed to add to the respondent: "it is not necessary that you remember the exact content of the commercials, or whether you liked them or not. Try to give an estimation of the number of commercials you noticed, at least in part".]
- [Q.12] What percentage of these spots draws your attention? 0 means none of the commercials, and 100 means all commercials. [Instruction: allowed to add to the respondent: "it is not necessary that you remember the exact content of the commercials, or whether you liked them or not. Try to give an estimation of that part of all commercials possibly seen that drew your attention, whether positively or negatively".]
- You were describing the last moment you were watching television and possibly saw some television commercials. The next few questions deal with television advertising in general. I will name you some possible reactions to advertising. Would you please state whether you do this 'always', 'often', 'sometimes' or 'never' when advertising appears on the screen?
- [Q.13] You watch the commercials briefly
- [Q.14] You zap to another channel
- [Q.15] You turn the volume down
- [Q.16] You do something else in the same room
- [Q.17] You leave the room
- [Q.18] You search for the commercials
- [Q.19] When you are watching television, do you always, often, sometimes or never pay attention to the commercials?

- [Introduction]** I'll read you some statements about television advertising. We would like to know your opinion about these statements. Would you please indicate whether you agree or disagree with the statement [Instruction: if agreed or disagreed, ask whether the respondent strongly agrees or disagrees].
- [Q.20]** Television commercials provide me with useful information about bargains
- [Q.21]** For me, television commercials are funny
- [Q.22]** Television commercials provide me with meaningful information about the product use of other consumers
- [Q.23]** Television commercials provide me with useful information about new products
- [Q.24]** For me, television commercials are entertaining
- [Q.25]** For me, television commercials appear at inconvenient moments
- [Q.26]** For me, television commercials are too loud ('schreeuwerig' in Dutch)
- [Q.27]** For me, television advertising has no credibility
- [Q.28]** For me, television commercials are repeated too often
- [Q.29]** For me, all television commercials are alike
- [Introduction]** The next few questions are about advertising in different media, such as television, radio, newspapers and magazines [only CATI version] [Instruction for answering: when positive or negative, ask whether this is very positive or very negative.].
- [Q31]** Are you in general positive or negative about television advertising?
- [Q32]** Are you in general positive or negative about radio advertising?
- [Q33]** Are you in general positive or negative about newspaper advertising?
- [Q34]** Are you in general positive or negative about magazine advertising?

A4: Response by version and method (Study II)

Table A4.1: Number of respondents by version (medium) and method

	CATI	mail	net sample
television	272	392	664
radio	259	404	663
newspaper	267	411	678
magazine	267	398	665
	n=1065 ⁽¹⁾	n=535 ⁽²⁾	⁽³⁾

⁽¹⁾ 1065 respondents completed the CATI questionnaire for one of the four media; ⁽²⁾ 535 respondents also completed the mail questionnaire for the 'remaining' three media; ⁽³⁾ these four samples do not differ in terms of sex ($\chi^2(3)=0.43$, $p=0.94$), age ($\chi^2(12)=1.57$, $p=0.99$) and education ($\chi^2(21)=2.34$, $p=0.99$).

A5: Pilot study 1997

At the end of a lecture, 111 first year Communication students of the University of Amsterdam were asked to complete a questionnaire about television and magazine advertising (February, 1997)¹. Of these respondents, 44 were male students (39.6%) and 67 were female students (60.4%). This sex difference reflects the general proportion of male and female students in Communication studies. The age of the respondents varies from 18 to 27, their average age is 20. The aim of this pilot study was to test two sequences of the belief statements and to test another measurement for 'paying attention to advertising'.

Results belief statements

To test the sequence of the belief statements, two versions of the questionnaire were used. The first version fits the sequence of study II (the negative – irritation – statements were listed together). In the second version all statements with respect to the belief dimensions 'information', 'entertainment' and 'irritation' were mixed (see sequence in Table A5.1). Results show that the two versions do not differ in terms of sex ($\chi^2(1)=0.13$, $p=0.72$) and age ($t(107)=-0.73$, $p=0.47$). Results also show that the average statement scores do not differ in the two versions, the only exception being the statement 'For me, magazine advertisements are funny' ($t(109)=-2.88$, $p=0.01$). In the old sequence of study II, the average score was 3.38 on a five point (Likert) scale. The new sequence resulted in a lower average score (2.97). For all other statements, however, a T-test revealed no significant differences ($p>0.05$).

This pilot study aimed at testing a few differences in the belief statements as well. According to some members of SUMMO's advise board, who evaluated the statements used in study II (see note 13 of Chapter 3), some statements were too much in favour of television advertising in stead of magazine advertising. As a reaction to this criticism, two irritation statements were excluded ('too loud' and 'inconvenient moments') and two statements about advantages were included ('beautiful' and 'new ideas'). Two of the other statements are slightly changed to be more appropriate to magazine advertising ('too often' is replaced by 'too much', and 'new products' by 'specific products'). These nine belief statements are summarised in Table A5.1 as well as their average scores.

Table A5.1: Average scores belief statements (n=111)

	magazine advertisements (ma)	television commercials (tc)
For me, ma (/tc) are entertaining	2.96	3.25
Ma (/tc) provide me with useful information about bargains	3.10	2.71
Ma (/tc) provide me with new ideas about products or services	3.32	3.40
In my opinion, there are too many ads in a magazine (/on television)	3.17	3.95
For me, ma (/tc) are funny	3.14	3.14
For me, ma (/tc) are beautiful	3.36	3.08
Ma (/tc) provide me with useful information about specific products	2.97	2.77
For me, ma (/tc) have no credibility	2.86	3.47
In my opinion, all ads are alike	2.96	3.32

scale: 1 = strongly disagree, 5 = strongly agree

At first sight, the results confirm the results of the second study. The average scores of 'entertaining', 'bargains' and 'funny' are slightly higher for both media. The average scores of 'too many' and 'no credibility' on the other hand, are somewhat lower. In other words, respondents of this study are a little more positive than the respondents of the second study. This result is in line with the results of the meta-analysis and study II, which showed that younger persons – like the students in this sample – are more positive about advertising. More important, the nine belief statements could be reduced to the three expected factors 'entertainment', 'information' and 'irritation' (see Table A5.2).

Table A5.2: Results factor analysis (factor loadings)

	magazine advertising (n=108)			television advertising (n=109)		
	factor 1	factor 2	factor 3	factor 1	factor 2	factor 3
	EV=2.72,	EV=1.69,	EV=1.19,	EV=2.47,	EV=1.73,	EV=1.21,
	R²=30.2%	R²=18.8%	R²=13.3%	R²=27.5%	R²=19.3%	R²=13.5%
funny	0.77	0.22	-0.16	0.92	0.03	0.01
amusing	0.86	0.03	-0.03	0.89	0.09	-0.01
beautiful	0.80	0.05	0.09	0.60	0.03	-0.40
specific products	0.16	0.80	-0.05	0.01	0.88	-0.06
bargains	-0.02	0.83	-0.16	0.16	0.79	-0.02
new ideas	0.14	0.75	-0.11	-0.02	0.67	-0.25
alike	0.09	0.05	0.73	-0.08	0.08	0.79
too many	-0.20	-0.14	0.76	0.01	-0.18	0.60
no credibility	0.01	-0.25	0.59	-0.08	-0.15	0.50

EV = Eigenvalue, R² = Explained Variance

Results 'paying attention to advertising'

In study II, 'paying attention' was measured by asking whether the respondent paid 'never', 'sometimes', 'often' or 'always' attention to advertising in a specific medium. Transcripts of part of the interviews²

showed that this question was frequently interpreted as a 'yes/no' question. Therefore, a dichotomous scale was used in this study. The variable 'paying attention' was divided in five items to have a more reliable measure. These items consist of paying attention to different types of advertising, namely: new ads, beautiful ads, irritating ads, funny ads and ads for interesting products. Mokken scale analysis for the items about magazine advertising showed that the five items can be used as one scale. A scalability coefficient (Loevinger's H weighted) of 0.46 indicates a "medium scale" (Mokken, 1970, p.185). No items are excluded in the search procedure. Based on these results an index variable 'paying attention (index)' can be constructed which indicates how many respondents said 'yes' to how many items. Mokken analysis for the five television items showed one scale as well. This scale however, is rather weak (H=0.35). Exclusion of one of the items ('paying attention to irritating ads') resulted in a medium scale (H=0.41).

A6: Analyses Chapter 4 (Study II)

Table A6.1: Last time advertising behaviour (Section 4.2.1)

	mean	median	valid n	dk	skewness	kurtosis
NP: number of ads noted	19.72	10	247	75	7.89	74.37
NP: % attention drawn	22.80	10	228	22	1.39	1.43
MA: number of ads noted	15.82	10	248	31	2.88	10.82
MA: % attention drawn	25.05	15	237	4	1.25	0.83
RA: number of ads noted	11.86	6	198	50	2.57	7.30
RA: % attention drawn	12.41	0	176	8	2.25	5.09
TV: number of ads noted	10.78	6	310	44	2.32	6.48
TV: % attention drawn	15.43	5	265	14	1.34	1.21

NP = newspaper advertising, MA = magazine advertising, RA = radio advertising, TV = television advertising, dk = number of 'don't know' answers.

Table A6.2: General advertising behaviour (Section 4.2.2)

	valid n	never	some- times	often	always	dk	skewness	kurtosis
newspaper items:								
skipping (item e)	590	2.9%	32.7%	50.3%	14.1%	11	-0.1	-0.4
searching (item f)	581	61.1%	33.1%	3.4%	1.5%	19	1.5	2.5
paying attention (item g)	646	17.2%	63.9%	13.6%	5.3%	8	0.8	1.0
looking briefly (item h)	594	5.2%	43.4%	42.4%	8.9%	7	0.1	-0.3
reading thoroughly (item i)	593	22.1%	69.5%	6.7%	1.7%	9	0.5	2.0
magazine items:								
skipping (item e)	560	5.0%	31.6%	45.2%	18.2%	5	0.1	-0.5
searching (item f)	549	73.4%	23.3%	2.6%	0.7%	5	1.9	4.0
paying attention (item g)	625	24.6%	60.3%	10.4%	4.6%	5	0.8	1.0
looking briefly (item h)	560	8.9%	38.9%	41.8%	10.4%	5	0.0	-0.4
reading thoroughly (item i)	554	28.7%	64.4%	5.2%	1.6%	3	0.6	1.6
radio items:								
zapping (item a)	524	74%	19.1%	5.2%	1.7%	3	2.0	3.9
muting (item b)	526	82.7%	10.8%	5.1%	1.3%	2	2.6	6.4
leaving the room (item c)	516	47.3%	41.5%	10.1%	1.2%	11	0.8	0.1
doing something else (item d)	540	27.4%	32.6%	26.7%	13.3%	7	0.3	-1.0
(combination a to d)	341	12.9%	29.0%	35.8%	22.3%	—	-0.2	-0.9
searching (item f)	526	98.1%	1.3%	0.4%	0.2%	25	9.6	106.2
paying attention (item g)	632	49.1%	47.6%	2.5%	0.8%	19	0.8	0.9
listening (item h)	564	16%	40.6%	19.9%	23.6%	5	0.2	-1.1
television items:								
zapping (item a)	577	19.8%	43.5%	31.5%	5.2%	7	0.1	-0.6
muting (item b)	551	73.9%	14%	9.3%	2.9%	9	1.8	2.4
leaving the room (item c)	558	20.4%	52.9%	25.3%	1.4%	3	0.1	-0.5
doing something else (item d)	610	5.7%	36.9%	49.7%	7.7%	5	-0.2	-0.2
(combination a to d)	503	18.9%	23.1%	41.6%	16.5%	—	-0.2	-1.0
searching (item f)	552	96.9%	2.7%	0.4%	0.0%	9	6.4	44.8
paying attention (item g)	646	27.9%	65.3%	5.4%	1.4%	6	0.5	1.5
watching (item h)	573	13.1%	65.1%	15.9%	5.9%	2	0.8	0.9

Table A6.3: Belief statements

	valid n	(strongly) disagree	(strongly) agree	skewness	kurtosis
newspaper items:					
bargains (item a)	629	16.2%	62.1%	-0.8	0.2
funny (item b)	637	46.3%	24.9%	0.2	-0.7
product use of others (item c)	594	58.8%	17.6%	0.4	-0.6
new products (item d)	611	27.5%	50.6%	-0.5	-0.8
entertaining (item e)	621	56.7%	17.1%	0.4	-0.4
inconvenient moments (item f)	599	59.3%	12.9%	0.7	0.3
too 'loud' (item g)	592	57.3%	13.5%	0.6	0.1
no credibility (item h)	598	39.3%	23.7%	0.3	-0.5
repeated too often (item i)	577	43.7%	31.6%	0.4	-0.8
all alike (item j)	574	46.9%	25.4%	0.5	-0.6
magazine items:					
bargains (item a)	594	34.2%	42.1%	-0.3	-0.9
funny (item b)	605	47.4%	23.3%	-0.2	-0.7
product use of others (item c)	579	59.6%	19.2%	0.5	-0.5
new products (item d)	589	22.6%	56.6%	-0.6	-0.4
entertaining (item e)	593	57.0%	16.3%	0.4	-0.4
inconvenient moments (item f)	581	51.8%	23.4%	0.5	-0.5
too 'loud' (item g)	572	51.6%	21.5%	0.5	-0.5
no credibility (item h)	578	34.4%	33.0%	0.1	-0.7
repeated too often (item i)	566	35.3%	42.8%	0.1	-1.1
all alike (item j)	551	42.6%	31%	0.3	-0.8
radio items:					
bargains (item a)	584	57.9%	19.0%	0.3	-0.8
funny (item b)	600	60.5%	16.3%	0.4	-0.6
product use of others (item c)	566	71.2%	11.5%	0.7	0.0
new products (item d)	579	50.1%	28.4%	0.2	-0.9
entertaining (item e)	592	55.7%	19.6%	0.3	-0.9
inconvenient moments (item f)	577	36.0%	39.3%	0.1	-1.0
too 'loud' (item g)	583	36.2%	37.4%	0.1	-0.9
no credibility (item h)	566	28.4%	44.2%	0.0	-0.9
repeated too often (item i)	572	16.8%	65.0%	-0.6	-0.5
all alike (item j)	536	37.3%	36.7%	0.2	-0.9
television items:					
bargains (item a)	626	63.6%	16.9%	0.5	-0.5
funny (item b)	640	59.8%	13.9%	0.4	-0.7
product use of others (item c)	613	75.4%	12.3%	0.8	0.1
new products (item d)	619	44.4%	34.9%	0.0	-1.1
entertaining (item e)	636	47.5%	23.0%	0.0	-1.0
inconvenient moments (item f)	636	14.6%	72.9%	-1.0	0.2
too 'loud' (item g)	626	26.5%	47.5%	-0.2	-0.9
no credibility (item h)	622	18.0%	61.7%	-0.6	-0.3
repeated too often (item i)	639	9.2%	83.3%	-1.5	1.8
all alike (item j)	606	30.0%	50.5%	0.1	-1.0

items a-e are positive statements, items f-j are negative statements; scale: 1=strongly disagree, 5=strongly agree

Table A6.4: Factor loadings newspaper statements (n=485)

	factor 1 (EV=2.86, R ² =28.6%)	factor 2 (EV=1.69, R ² =16.9%)	factor 3 (EV=0.99, R ² =9.9%)
items:			
too often	0.74	0.01	0.07
too loud	0.71	-0.15	0.09
inconvenient moments	0.68	-0.29	-0.01
no credibility	0.65	0.11	-0.28
alike	0.55	-0.02	-0.25
amusing	0.05	0.81	0.07
funny	-0.13	0.78	0.16
information bargains	-0.19	0.47	0.40
information product use others	0.05	0.06	0.80
information new products	-0.16	0.33	0.72

EV = Eigenvalue, R² = Explained variance

Table A6.5: Factor loadings magazine statements (n=482)

	factor 1 (EV=3.07, R ² =30.7%)	factor 2 (EV=1.69, R ² =16.9%)	factor 3 (EV=0.99, R ² =9.9%)
items:			
too loud	0.71	-0.27	0.21
too often	0.71	0.20	-0.32
no credibility	0.69	-0.13	-0.19
alike	0.66	0.03	-0.13
inconvenient moments	0.65	-0.26	-0.11
information bargains	-0.08	0.80	0.02
information new products	-0.14	0.71	0.25
information product use others	0.01	0.48	0.44
amusing	-0.07	0.06	0.82
funny	-0.18	0.33	0.60

EV = Eigenvalue, R² = Explained variance

Table A6.6: Factor loadings radio statements (n=471)

	factor 1 (EV=3.53, R ² =35.3%)	factor 2 (EV=1.72, R ² =17.2%)	factor 3 (EV=0.90, R ² =9.0%)
items:			
inconvenient moments	0.72	-0.14	-0.02
too often	0.70	-0.01	-0.10
no credibility	0.70	-0.31	0.04
too loud	0.67	-0.07	-0.22
alike	0.58	0.13	-0.33
information new products	-0.08	0.81	0.16
information product use others	-0.08	0.80	0.07
information bargains	-0.09	0.74	0.33
amusing	-0.17	0.20	0.87
funny	-0.16	0.44	0.70

EV = Eigenvalue, R² = Explained variance

Table A6.7: Factor loadings television statements (n=445)

	factor 1 (EV=2.60, R ² =26.0%)	factor 2 (EV=2.09, R ² =20.9%)	factor 3 (EV=0.97, R ² =9.7%)
items:			
too often	0.74	0.11	-0.03
no credibility	0.73	-0.21	-0.02
alike	0.67	0.05	-0.03
too loud	0.65	-0.06	-0.20
inconvenient moments	0.56	-0.06	0.01
information product use others	-0.01	0.77	0.08
information bargains	0.02	0.72	0.09
information new products	0.02	0.71	0.32
amusing	-0.05	0.17	0.87
funny	-0.12	0.21	0.84

EV = Eigenvalue, R² = Explained variance

Table A6.8: Correlation between belief dimensions and attitude towards advertising

	attitude towards ...			
	newspaper advertising	magazine advertising	radio advertising	television advertising
irritation	-0.32 (n=509)	-0.27 (n=497)	-0.31 (n=486)	-0.17 (n=567)
information	0.32 (n=564)	0.32 (n=546)	0.40 (n=527)	0.38 (n=589)
entertainment	0.35 (n=608)	0.32 (n=578)	0.45 (n=570)	0.45 (n=632)

All (Pearson) correlation coefficients are significant at the 0.01 level (2-tailed).

A7: Analyses Chapter 5 (Study II)

Factor analyses 'advertising use'

The factor analyses are based on the Principal Components Analysis with Varimax rotation. A first factor analysis – in which all behavioural statements (the statements of the next table plus the item 'looking briefly') were included – yielded two factors. The second factor, however, consisted of only one item, namely 'looking briefly'. Interpretation of this item is rather difficult since it refers to 'positive' as well as 'negative' behaviour with respect to print advertising. A second factor analysis with the remaining items yielded one factor with an explained variance of more than 50% (see Table A7.1). This factor refers to paying attention to print advertising.

Table A7.1: Results of factor analyses for print advertising use (factor loadings)

items:	newspaper advertising	magazine advertising
	(one factor: EV=2.16, R ² =54.0%)	(one factor: EV=1.03, R ² =52.7%)
skipping	-0.48	-0.69
searching	0.76	0.68
paying attention	0.84	0.81
reading thoroughly	0.81	0.81

EV = Eigenvalue, R² = Explained variance.

A factor analysis in which all statements with respect to radio (or television) advertising were included yielded three factors with a cumulative explained variance of more than 50% (see Table A7.2). The first factor consists of the items 'leaving the room' and 'doing something else' and is referred to as physical avoidance (i.e. 'use3'). The second factor is based on the items 'zapping', 'muting', and '(not) watching'. This factor is labelled 'avoidance in general' (i.e. 'use2'). The items 'searching' and 'paying attention' highly load on the third factor, which is called 'attention' (i.e. 'use1').

Table A7.2: Results of factor analyses for broadcast advertising use (factor loadings)

items:	radio advertising			television advertising		
	factor 1:	factor 2:	factor 3:	factor 1:	factor 2:	factor 3:
	'physical avoidance'	'avoidance'	'attention'	'physical avoidance'	'avoidance'	'attention'
	(EV=1.56, R ² =22.3%)	(EV=1.32, R ² =18.9%)	(EV=1.17, R ² =16.8%)	(EV=1.36, R ² =19.4%)	(EV=1.42, R ² =20.3%)	(EV=1.19, R ² =16.9%)
zapping	0.11	0.73	0.14	-0.17	0.74	0.13
muting	-0.12	0.76	0.06	0.01	0.43	-0.16
leaving the room	0.85	0.03	0.01	0.82	-0.23	-0.06
doing something else	0.83	0.02	0.01	0.76	0.31	0.05
searching	0.20	0.12	0.65	0.03	0.05	0.81
paying attention	-0.14	0.05	0.75	-0.07	-0.30	0.66
listening/watching	-0.26	-0.44	0.40	-0.28	-0.67	0.20

EV = Eigenvalue, R² = Explained variance; only factors with EV ≥ 1 are shown; factor 1 = physical avoidance = use3, factor 2 = avoidance = use2, factor 3 = attention = use1.

Correlation between 'summary scores' and 'factors'

In order to see to what extent the factor analyses represent an 'unnatural' situation – in which factors are wrongly perceived as uncorrelated – Pearson correlation coefficients between the factor and a constructed variable based on summary scores were calculated per medium (see note 1 in Chapter 5).

Table A7.3: Pearson correlation coefficients 'advertising use'

	use1: attention	use2: avoidance	use3: physical avoidance
newspaper	0.99	—	—
magazine	0.99	—	—
radio	0.89	0.91	0.97
television	0.94	0.84	0.98

All significant at the 0.01 level.

Table A7.4: Pearson correlation coefficients 'belief factors'

	irritation	information	entertainment
newspaper	0.98	0.88	0.94
magazine	0.99	0.89	0.82
radio	0.98	0.95	0.88
television	0.99	0.97	0.96

All significant at the 0.01 level.

Table A7.5.: Correlation matrix newspaper advertising (1065≥n>303; missing cases are deleted pair wise)

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
(a) use	1.00											
(b) liking	0.31 *	1.00										
(c) irritation	-0.17 *	-0.27 **	1.00									
(d) information	0.18 *	0.15 **	0.00	1.00								
(e) entertainment	0.53 *	0.31 **	0.00	0.00	1.00							
(f) frequency	-0.03	0.01	-0.10 *	0.11 *	-0.10 *	1.00						
(g) duration	0.01	0.01	0.06	0.02	-0.02	0.11 **	1.00					
(h) sex	-0.05	0.01	-0.01	0.06	-0.04	0.05	0.07	1.00				
(i) age	-0.09 *	-0.12 **	0.10 *	0.07	-0.15 **	0.28 **	0.34 **	-0.07 *	1.00			
(j) education	-0.08	0.02	-0.05	-0.15 **	0.04	0.06	0.01	0.15 **	-0.23 **	1.00		
(k) job	-0.06	0.05	0.01	0.01	-0.01	-0.03	-0.13 **	0.22 **	-0.33 **	0.24 **	1.00	
(l) working hours	-0.02	0.02	-0.06	0.04	-0.02	0.10	0.06	0.49 **	0.00	0.09 *	0.09 *	1.00
(m) size household	0.01	0.09 **	-0.07	0.04	0.06	-0.06	-0.25 **	-0.04	-0.38 **	-0.03	0.09 *	-0.10 *

factor 'use' consists of four items (Table A7.1), also referred to as 'attention'; 'sex' and 'job' are dummy variables (1 = men/job, 0 = women/no job), * = significant at 0.05 level.

Table A7.7: Correlation matrix radio advertising (1065 > n > 307; missing cases are deleted pair wise)

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
(a) use1	1.00													
(b) use2	0.00	1.00												
(c) use3	0.00	0.00	1.00											
(d) liking	0.22 *	-0.14 *	-0.08	1.00										
(e) irritation	-0.14 *	0.13 *	0.12 *	-0.24 *	1.00									
(f) information	0.23 *	-0.06	-0.10 *	0.32 *	0.00	1.00								
(g) entertainment	0.26 *	-0.04	-0.11 *	0.29 *	0.00	0.00	1.00							
(h) frequency	0.11 *	-0.06	-0.01	-0.01	-0.02	0.01	-0.03	1.00						
(i) duration	-0.06	-0.13 *	0.06	0.09 *	-0.03	-0.00	-0.02	0.24 *	1.00					
(j) sex	0.09	0.12 *	-0.15 *	0.00	0.00	0.07	0.01	0.10 *	-0.05	1.00				
(k) age	-0.21 *	-0.03	-0.05	-0.24 *	0.01	-0.06	-0.18 *	0.03	0.00	-0.07 *	1.00			
(l) education	0.01	0.08	0.02	-0.14 *	0.11 *	-0.08	-0.03	-0.08 *	-0.23 *	0.15 *	-0.23 *	1.00		
(m) job	0.04	-0.04	-0.07	0.06	0.04	-0.07	0.11 *	0.09 *	0.05	0.22 *	-0.33 *	0.24 **	1.00	
(n) working hours	0.11	-0.05 *	-0.21 *	0.03	-0.13 *	0.12 *	-0.01	0.12 *	-0.02	0.49 *	0.33	0.09 *	0.09 *	1.00
(o) size household	0.11 *	0.01	0.03	0.14 *	0.01	0.10 *	0.09	-0.03	0.03	-0.04	-0.38 *	-0.03	0.09 *	-0.10 *

use1 = factor 'attention', use2 = factor 'avoidance', use3 = factor 'physical avoidance' (Table A7.2); 'sex' and 'job' are dummy variables (1 = men/job, 0 = women/no job), * = significant at 0.05 level.

Table A7.8: Correlation matrix television advertising (10652 > n > 312; missing cases are deleted pair wise)

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
(a) use1	1.00													
(b) use2	0.00	1.00												
(c) use3	0.00	0.00	1.00											
(d) liking	0.21*	-0.30*	-0.08	1.00										
(e) irritation	-0.11*	0.21*	0.15*	-0.14*	1.00									
(f) information	0.12*	-0.18*	-0.04	0.27*	0.00	1.00								
(g) entertainment	0.30*	-0.27*	-0.07	0.37*	0.00	0.00	1.00							
(h) frequency	0.03	-0.08	0.06	-0.01	0.09*	0.06	0.02	1.00						
(i) duration	-0.01	-0.05	0.05	0.02	0.00	0.11*	0.03	0.25*	1.00					
(j) sex	0.02	0.10*	-0.14*	0.04	-0.05	-0.03	0.00	-0.11*	-0.13*	1.00				
(k) age	-0.26*	0.08	0.03	-0.23*	0.00	-0.09*	-0.27*	0.10*	0.04	-0.07*	1.00			
(l) education	0.01	0.07	-0.02	-0.01	0.03	-0.09*	0.11*	-0.17*	-0.28*	0.15*	-0.23*	1.00		
(m) job	0.07	0.01	-0.04	0.10*	0.03	-0.03	0.11*	-0.15*	-0.15*	0.22*	-0.33*	0.24*	1.00	
(n) working hours	0.01	0.12*	-0.16*	0.05	-0.03	-0.10	-0.03	-0.17*	-0.10	0.49*	0.00	0.09*	0.00	1.00
(o) size household	0.01	-0.17*	-0.04	0.06	0.03	0.11*	0.10*	-0.03	-0.06	-0.04	-0.38*	-0.03	0.09*	-0.10*

use1 = factor 'attention', use2 = factor 'avoidance', use3 = factor 'physical avoidance' (Table A7.2); 'sex' and 'job' are dummy variables (1 = men/job, 0 = women/no job), * = significant at 0.05 level.

Results regression analyses

(Method: Backward, missing values are deleted pair wise)

Table A7.9: Newspaper advertising (β values)

predictors:	dependent variables:				
	attention	liking	entertainment	information	irritation
liking	0.10	—	—	—	—
bf irritation	-0.15 *	-0.27 *	—	—	—
bf information	0.16 *	0.15 *	—	—	—
bf entertainment	0.50 *	0.31 *	—	—	—
frequency	e	e	e	0.12 *	-0.13 *
age	e	e	-0.15 *	e	0.14 *
education	-0.08	e	e	-0.16 *	e
size of household	e	e	e	e	e
model statistics:	adjusted $R^2=0.34$, $F(5,297)=36.92$, $p=0.00$	adjusted $R^2=0.18$, $F(3,299)=23.36$, $p=0.00$	adjusted $R^2=0.02$, $F(1,301)=6.56$, $p=0.01$	adjusted $R^2=0.03$, $F(2,300)=5.72$, $p=0.00$	adjusted $R^2=0.02$, $F(2,300)=4.05$, $p=0.02$

bf = belief factor, d = dummy variable (1 = presence, 0 = absence), — = not applicable, e = excluded from the regression model (removal criterion: $p \geq 0.10$), also excluded in all models: 'duration', 'sex (d)', 'working hours'; * = significant at the 0.05 level.

Table A7.10: Magazine advertising (β values)

predictors:	dependent variables:			
	attention	liking	information	irritation
liking	0.10 *	—	—	—
bf irritation	-0.13 *	-0.18 *	—	—
bf information	0.39 *	0.20 *	—	—
bf entertainment	0.26 *	0.25 *	—	—
frequency	e	e	e	e
age	e	-0.11 *	e	0.17 *
sex (d)	e	e	e	e
education	0.10 *	e	0.12 *	e
working hours	0.13 *	e	e	e
model statistics:	adjusted $R^2=0.30$, $F(6,291)=22.09$, $p=0.00$	adjusted $R^2=0.14$, $F(4,293)=13.42$, $p=0.00$	adjusted $R^2=0.01$, $F(1,296)=4.02$, $p=0.04$	adjusted $R^2=0.03$, $F(1,296)=8.82$, $p=0.00$

bf = belief factor, d = dummy variable (1 = presence, 0 = absence), — = not applicable, e = excluded from the regression model (removal criterion: $p \geq 0.10$), also excluded in all models: 'duration', 'size of household'; * = significant at the 0.05 level; note: no significant regression model for the dependent variable 'entertainment' ($p \geq 0.05$).

Table A7.11: Radio advertising (β values)

	dependent variables:						
	use1: attention	use2: avoidance	use3: physical avoidance	liking	irritation	informa- tion	entertain- ment
liking	e	-0.12 *	e	—	—	—	—
bf irritation	-0.13 *	e	0.09	-0.22 *	—	—	—
bf information	0.22 *	e	e	0.30 *	—	—	—
bf entertainment	0.24 *	e	-0.11 *	0.25 *	—	—	—
frequency	0.12 *	e	e	e	e	e	e
duration	e	-0.12 *	e	e	e	e	e
age	0.16 *	e	e	-0.20 *	-0.18 *	e	e
sex (d)	e	0.18 *	e	e	e	e	e
education	e	e	e	-0.13 *	e	e	0.12 *
working hrs	e	-0.14 *	-0.20 *	e	e	0.13 *	-0.14 *
size of hh	e	e	e	e	e	0.11	e
model statistics:	adjusted R ² =0.17 F(5,301)= 13.01, p=0.00	adjusted R ² =0.05 F(4,302)= 4.77, p=0.00	adjusted R ² =0.06 F(3,303)= 7.09, p=0.00	adjusted R ² =0.27 F(5,301)= 24.16, p=0.00	adjusted R ² =0.03 F(1,305)= 10.05, p=0.00	adjusted R ² =0.02 F(2,304)= 4.17, p=0.02	adjusted R ² =0.02 F(2,304)= 4.77, p=0.01

bf = belief factor, hrs = hours, hh = household, d = dummy variable (1 = presence, 0 = absence), — = not applicable, e = excluded from the regression model (removal criterion: $p \geq 0.10$); * = significant at the 0.05 level.

Table A7.12: Television advertising (β values)

	dependent variables:					
	attention	avoidance	physical avoidance	liking	entertain- ment	information
liking	e	-0.16 *	e	—	—	—
bf irritation	-0.11 *	0.20 *	0.14 *	-0.14 *	—	—
bf information	0.11 *	-0.12 *	e	0.27 *	—	—
bf entertainment	0.25 *	-0.19 *	e	0.35 *	—	—
duration	e	e	e	e	e	0.12 *
age	-0.23 *	e	e	-0.12 *	-0.27 *	-0.10
sex (d)	e	0.11 *	e	e	e	e
education	e	e	e	e	e	e
working hours	e	e	-0.16 *	0.08	e	e
size of household	-0.12 *	-0.13 *	e	e	e	e
model statistics:	adjusted R ² =0.15 F(5,299)= 11.50, p=0.00	adjusted R ² =0.18 F(6,298)= 12.11, p=0.00	adjusted R ² =0.04 F(2,302)= 7.23, p=0.00	adjusted R ² =0.24 F(5,306)= 20.69, p=0.00	adjusted R ² =0.07 F(1,310)= 23.85, p=0.00	adjusted R ² =0.02 F(2,309)= 3.48, p=0.03

bf = belief factor, d = dummy variable (1 = presence, 0 = absence), — = not applicable, e = excluded from the regression model (removal criterion: $p \geq 0.10$), also excluded in all models: 'frequency'; * = significant at the 0.05 level; Note: no significant regression model for the dependent variable 'irritation' ($p \geq 0.05$).

Results LISREL analyses

Table A7.13: Results LISREL analysis radio advertising (standardised path coefficients)

	information	entertainment	liking	use1	use2	use3
bf irritation	—	—	-0.22 *	-0.13 *	—	0.09 *
bf information	—	—	0.29 *	0.22 *	—	—
bf entertainment	—	—	0.25 *	0.24 *	—	-0.11 *
liking	—	—	—	—	-0.12 *	—
frequency	—	—	—	0.10 *	—	—
duration	—	—	—	—	-0.11 *	—
age	—	—	-0.21 *	-0.15 *	—	0.01 *
sex	—	—	—	—	0.18	—
education	-0.03	-0.14	—	—	—	—
working hours	0.13 *	-0.01 *	—	—	-0.14 *	-0.21 *
size of household	0.11 *	—	—	—	—	—

use1 = attention, use2 = avoidance, use3 = physical avoidance, bf = belief factor, * = significant at the 0.05 level (based on LISREL estimates, ML); model statistics: $\chi^2(48)=65.11$, $p=0.05$, AGFI=0.96, PGFI=0.45; squared multiple correlation: $R^2_{\text{information}}=0.02$, $R^2_{\text{entertainment}}=0.00$, $R^2_{\text{liking}}=0.25$, $R^2_{\text{use1}}=0.15$, $R^2_{\text{use2}}=0.06$, $R^2_{\text{use3}}=0.06$.

Table A7.14: Results LISREL analysis television advertising (standardised path coefficients)

	information	entertainment	liking	use1	use2	use3
bf information	—	—	0.27 *	0.11 *	-0.10 *	—
bf entertainment	—	—	0.34 *	0.27 *	-0.17 *	—
liking	—	—	—	—	-0.18 *	—
bf irritation	—	—	-0.13 *	-0.10 *	0.17 *	0.13 *
frequency	—	—	—	—	—	—
duration	0.11 *	—	—	—	—	—
age	-0.09 *	-0.24 *	-0.13 *	-0.21 *	—	—
sex	—	—	—	—	0.11	—
working hours	—	—	0.08 *	—	—	-0.15 *
size of household	—	—	—	-0.11 *	-0.13 *	—

use1 = attention, use2 = avoidance, use3 = physical avoidance, bf = belief factor, * = significant at the 0.05 level (based on LISREL estimates, ML); model statistics: $\chi^2(30)=34.97$, $p=0.24$, AGFI=0.97, PGFI=0.38; squared multiple correlation: $R^2_{\text{information}}=0.02$, $R^2_{\text{entertainment}}=0.06$, $R^2_{\text{liking}}=0.26$, $R^2_{\text{use1}}=0.16$, $R^2_{\text{use2}}=0.17$, $R^2_{\text{use3}}=0.04$.

In the next two tables, the four LISREL models are compared by means of the standardised total effects of the independent and (other) dependent variables on 'advertising use' and 'liking'.

Table A7.15: Standardised total effects for use and liking of print advertising (LISREL)

	newspaper advertising (Figure 5.2)		magazine advertising (Figure 5.3)	
	use	liking	use	liking
liking	0.10	—	0.12	—
bf irritation	-0.17	-0.25	-0.14	-0.16
bf information	0.16	0.14	0.39	0.19
bf entertainment	0.51	0.29	0.28	0.23
frequency	0.04	0.05	—	—
age	-0.08	-0.06	-0.03	-0.14
education	(-0.11)	(-0.02)	(0.06)	(0.02)
working hours	—	—	0.13	—
model statistics:	R ² =0.33	R ² =0.17	R ² =0.29	R ² =0.13
	$\chi^2(12)=6.49$, $p=0.89$; AGFI=0.99, PGFI=0.33		$\chi^2(10)=5.70$, $p=0.84$; AGFI=0.99, PGFI=0.28	

bf = belief factor; () = not significant.

Table A7.16: Standardised total effects for use and liking of broadcast advertising (LISREL)

	radio advertising (Figure 5.4)				television advertising (Figure 5.5)			
	use1	use2	use3	liking	use1	use2	use3	liking
liking	—	-0.12	—	—	—	-0.18	—	—
bf irritation	-0.13	0.03	0.09	-0.22	-0.10	0.19	0.13	-0.13
bf information	0.22	-0.04	—	0.29	0.11	-0.15	—	0.27
bf entertainment	0.24	-0.03	-0.11	0.25	0.27	-0.23	—	0.34
frequency	0.10	—	—	—	—	—	—	—
duration	—	-0.11	—	—	0.01	-0.02	—	0.03
age	-0.15	0.03	0.00	-0.21	-0.28	0.09	—	-0.23
sex ('men')	—	(0.18)	—	—	—	(0.11)	—	—
education	(-0.01)	(0.02)	(0.00)	(-0.14)	—	—	—	—
working hours	0.03	-0.14	-0.21	0.03	—	-0.01	-0.15	—
size of household	0.02	0.00	—	0.03	0.11	-0.13	—	—
model statistics:	R ² =0.15	R ² =0.06	R ² =0.06	R ² =0.25	R ² =0.16	R ² =0.17	R ² =0.04	R ² =0.26
	$\chi^2(48)=65.11$, $p=0.05$; AGFI=0.96, PGFI=0.45				$\chi^2(30)=44.97$, $p=0.24$; AGFI=0.97, PGFI=0.38			

bf = belief factor, use1 = 'attention', use2 = 'avoidance', use3 = 'physical avoidance'; () = not significant (see Table A7.13 and Table A7.14).

A8: Analyses Chapter 6 (Study IV)

Table A8.1: Correlation matrix I (n=671 advertisements)

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
(a) recognition	1.00							
(b) proven	0.40 *	1.00						
(c) likeability	0.30 *	0.17 *	1.00					
(d) pc FS	-0.04	0.01	-0.04	1.00				
(e) pc FMCG	0.02	-0.07	0.07	-0.17 *	1.00			
(f) pc MP	0.03	-0.02	0.06	-0.07	-0.14 *	1.00		
(g) pc BCP	0.09 *	0.11 *	-0.06	-0.12 *	-0.25 *	-0.10 *	1.00	
(h) product use	-0.01	0.08 *	0.06	-0.01	-0.01	-0.16 *	0.04	1.00
(i) product interest	0.09 *	0.09 *	0.09 *	0.06	-0.12 *	-0.03	-0.05	0.28 *

proven = proven recognition, pc = product category (is dummy variable, with 1 = presence and 0 = absence), FS = financial services, FMCG = fast moving consumer goods, MP = medical products, BCP = body care products; * = significant at the 0.05 level.

Table A8.2: Items of index variable 'paying attention' (yes/no)

items:	% yes
(a) paying attention to new ads (n=100)	31.0%
(b) paying attention to beautiful ads (n=100)	71.0%
(c) paying attention to irritating ads (n=100)	35.0%
(d) paying attention to funny ads (n=100)	66.0%
(e) paying attention to ads for interesting products (n=99)	71.7%

The five items of Table A8.2 form a weak scale ($H=0.31$, $n=100$). Mokken search procedure resulted in two stronger scales, namely paying attention to irritating (item c), funny (item d) and beautiful ads (item b) (scale 1: $H=0.44$), and paying attention to new ads (item a) and ads for interesting products (item e) (scale 2: $H=0.56$). Despite this result, it is decided to use the five items as one scale (H -value of individual items vary between 0.26 and 0.44). This scale was constructed by means of counting the number of items, which the respondent said 'yes' to.

Table A8.3: Results behavioural statements (average on five-point scale)

items:	mean	factor
(a) I thoroughly read the advertisement (n=97)	2.05	F1
(b) I look briefly at the advertisement (n=100)	2.96	*
(c) I skip the advertisement immediately (n=97)	2.28	F1
(d) Paying attention to advertisements (n=99) (index variable)	2.74	F1

scale items a to c: 1 = never, 2 = sometimes, 3 = regularly, 4 = frequently, 5 = always; scale item d: 1 = 'yes' to one of the five items, 5 = 'yes' to all five items (see previous table); distribution all items: skewness and kurtosis < 1. * = Factor analysis with the four items yielded one factor with a cumulated explained variance of 39.5% and a very low communality of item b ('looking briefly') (0.05). This item was not included in the second factor analysis. Based on the factor scores of this latter factor analysis, the factor 'advertising use' (F1) was constructed. ($EV=1.58$, $R^2=52.0\%$) with the following factor loadings for the remaining three items: 0.61 (item a), 0.51 (item c), 0.44 (item d).

Table A8.4: Results belief statements (average on five-point scale) (n=98)

items:	mean	factor
(a) For me, magazine ads are entertaining	3.09	F1
(b) Magazine ads provide me with useful information about bargains	3.23	F2
(c) Magazine ads offer me new ideas about products or services	3.53	F2
(d) For me, there are too many ads in a magazine	3.14	F3
(e) For me, magazine ads are funny	3.06	F1
(f) For me, magazine ads are beautiful	3.18	F1
(g) Magazine ads provide me with useful information about specific products	3.27	F2
(h) For me, magazine ads have no credibility	2.78	F3
(i) For me, all magazine ads are alike	2.88	F3

scale: 1 = strongly disagree, 5 = strongly agree; F1 = belief factor 'entertainment', F2 = belief factor 'information', F3 = belief factor 'irritation'.

Table A8.5: Factor loadings belief statements (n=98)

items:	factor 1: entertainment (EV=2.53, R ² =28.1%)	factor 2: information (EV=1.83, R ² =20.3%)	factor 3: irritation (EV=1.36, R ² =15.1%)
funny (item e)	0.89	0.10	0.01
amusing (item a)	0.83	0.17	-0.04
beautiful (item f)	0.72	-0.08	-0.07
spec products (item g)	-0.13	0.79	-0.14
bargains (item b)	0.11	0.76	0.03
new ideas (item c)	0.26	0.68	-0.22
too many (item d)	-0.19	0.29	0.76
no credibility (item h)	0.00	-0.31	0.71
alike (item i)	0.04	-0.23	0.70

EV = Eigenvalue, R² = Explained variance; method: PCA with Varimax rotation

Table A8.6: Results of six regression analyses (β values)

predictors:	dependent variables (magazine advertising):					
	use:	evaluation:				
	recognition	attention	liking	irritation	information	entertainment
use	0.22 *	—	—	—	—	—
liking	e	0.27 **	—	—	—	—
bf irritation	e	-0.31 **	-0.20 *	—	—	—
bf information	e	e	0.25 *	—	—	—
bf entertainment	e	e	0.20	—	—	—
regular reading	0.25 *	0.25 *	e	e	0.22 *	e
subscription (d)	e	e	e	-0.21 *	e	e
news (d)	e	-0.22 *	e	-0.22	e	e
women (d)	e	e	e	0.42 **	e	e
age	e	e	e	0.43 **	0.26 **	-0.35 **
sex	e	e	e	0.30 *	-0.24 *	0.25 *
education	e	-0.23 *	e	e	0.32 **	-0.29 *
household income	e	e	0.23 *	e	e	e
household size	e	e	e	e	0.32 **	e
model statistics	adjusted $R^2=0.12$, $F(2,76)=$ 6.53, $p=0.00$	adjusted $R^2=0.29$, $F(5,80)=$ 8.06, $p=0.00$	adjusted $R^2=0.14$, $F(4,81)=$ 4.47, $p=0.00$	adjusted $R^2=0.30$, $F(5,80)=$ 8.36, $p=0.00$	adjusted $R^2=0.23$, $F(4,81)=$ 7.20, $p=0.00$	adjusted $R^2=0.10$, $F(3,82)=$ 4.09, $p=0.01$
bf = belief factor, d = dummy variable (1 = present, 0 = absent), — = not applicable, e = excluded in the selection procedure (removal criterion: $p \geq 0.10$), * = significant at the 0.05 level.						

Table A8.7: Correlation matrix II (n=88 respondents)

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)
(a) recognition	1.00													
(b) use	0.30*	1.00												
(c) liking	0.09	0.32*	1.00											
(d) bf entertainment	0.18	0.22*	0.15	1.00										
(e) bf information	-0.05	0.23*	0.26*	0.00	1.00									
(f) bf irritation	-0.15	-0.20	-0.20	0.00	0.00	1.00								
(g) regular reading	0.32*	0.32*	0.13	0.08	0.19	0.12	1.00							
(h) subscription	0.17	-0.07	0.08	-0.13	0.12	-0.16	-0.07	1.00						
(i) news (d)	-0.16	-0.25*	0.06	-0.17	-0.27*	-0.23*	-0.18	0.21*	1.00					
(j) women (d)	0.04	0.02	-0.07	-0.07	0.32*	0.30*	0.14	0.07	-0.63*	1.00				
(k) age	-0.08	-0.07	0.04	-0.23*	0.22*	0.34*	-0.11	0.22*	0.16	-0.08	1.00			
(l) sex	0.06	-0.10	0.15	0.12	-0.28*	-0.07	-0.10	-0.10	0.53*	-0.73*	0.07	1.00		
(m) education	-0.16	-0.23*	0.11	-0.07	-0.24*	-0.33*	-0.18	0.04	0.44*	-0.38*	-0.36*	0.38*	1.00	
(n) household income	-0.14	-0.12	0.20	-0.20	0.06	0.01	-0.13	0.15	0.26*	-0.04	0.24*	0.08	0.04	1.00
(o) household size	-0.06	-0.01	0.15	-0.11	0.32*	-0.06	-0.09	0.00	-0.13	0.22*	-0.01	-0.11	-0.12	0.40*

use = 'attention' (based on factor analysis), bf = belief factor, d = dummy (1 = presence, 0 = absence), * = significant at the 0.05 level.

Notes Appendix

- 1 I thank *Judith van Ankeren*, *Piet Bakker*, *Lilian van der Bolt* and the other lecturers of the Communication Introduction course who asked their students to complete the questionnaire.
- 2 *Dr. Wil Dijkstra* of the Free University of Amsterdam used the transcripts of the taped CATI interviews to analyse the interactions between the interviewer and the respondent (see also: Van der Zouwen & Dijkstra, 1996).