



# Measuring Motivations for Media Exposure: A Thesis

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**Abstract.** The present article discusses the problem of separating the motivation concept empirically from other relevant concepts in research on mass media audiences. For about half a century, audience researchers use questionnaire items with a distinct format as measurements of motivations for media exposure. It is argued that these motivation items grammatically reflect the nature of the motivation concept as a theoretically intermediate variable between behaviour and its social or mental background, thus constituting the most plausible indicators of the concept. However, it is also argued that these questionnaire items are double-barrelled and that any measurement of motivations based on the items can largely be considered an ambiguous mixture of behaviour and its social or mental origin. A study is presented that provides empirical support for this position.

**Key words:** measurement, motivations, Uses & Gratifications, audience research, construct validity

## 1. Introduction

One of the most widely used concepts in audience research is the concept of motivation, or, stated differently, the concept of gratifications sought. The concept may be conceived of as a theoretically intermediate variable between media use on the one hand and its social or mental origins, for instance needs, on the other hand (Palmgreen et al., 1985). Palmgreen et al.'s (1980) gratifications sought scale, as well as Rubin's (1981) television viewing motivations scale are examples of the way researchers have operationalized motivations.

The development of motivation scales has received a lot of attention during the past decades. Most of the items used have been grounded in analyses of qualitative data, such as answers to open ended questions, essays and diaries (Blumler & McQuail, 1968; Greenberg, 1974; Rubin, 1981, 1983; Bantz, 1982; Rubin et al., 1988; Perse, 1994). Besides, some indications have been established that the scales represent valid measurements of motivations (for instance, see Becker, 1979; Blumler & McQuail, 1968; McLeod & Becker, 1974; Rubin, 1981). Ultimately, both the Palmgreen et al. (1980) and Rubin (1981) scales are included in a sourcebook of communication research measures (Rubin et al., 1994), that may very well turn

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out to be an important step towards their establishment as standard measurement instruments for future audience research.

At first sight, the acceptance of these measurement instruments as validated standard instruments seems a very promising development. However, also critical remarks can be made.

First, from measurement theory it is known that construct validation entails more than just the validation of some measurement. It always involves simultaneously the validation of the concept itself and ultimately the validation of the theoretical framework surrounding the concept. In slightly different words, the validation of a theoretical construct and its measurement depend, amongst others, on the quality of the theoretical frameworks used (Zeller & Carmines, 1980). At best, it requires the presence of a so-called 'nomological network', a network of theoretical *laws* (Cronbach & Meehl, 1955). Of course, these conditions for construct validation can hardly or never be met fully satisfactory. But in the case of the motivation concept and the motivation scales, one may even ask whether they are met to a reasonable extent. For instance, back in the seventies Katz et al. (1974: 24) stated that "the study of mass media suffers at present from the absence of a relevant theory of social and psychological needs". In the eighties, Palmgreen et al. (1985: 20) stated that "no general theoretical framework exists linking gratifications to their social origins". And, although some studies raising fundamental issues have been published (notably Babrow & Swanson, 1988), Roe (1996: 82) declared the quoted assertion by Katz et al. still valid in his recent review of methodological issues in audience research, especially within the tradition of the so-called 'Uses & Gratifications' approach. The absence of an undisputed theoretical framework surrounding the motivation concept is a serious obstacle to construct validation; anyway, to such an extent that this matter should not be considered being solved once and for all.

Second, standardization in the conceptualization and measurement of motivations holds the promise of accumulating research findings. However, another side to the coin is that the validity of a whole 'body of knowledge' concerning motivations for media use depends on the validity of the motivation concept and its measurement. For this reason, the validity of the concept of motivation, as well as the validity of its measurement remain crucial topics for critical examination and research.

## 2. Research question

Despite the popularity of the motivation concept in audience research, some critical studies discussing theory and measurement of motivations have been published over the last decades (most notably Babrow, 1988; Becker, 1979; Messaris, 1977). In the present study, we focus on one aspect of this methodological discussion: the analytical and empirical distinction between the motivation concept and other relevant concepts, for instance 'needs' and 'media use'. Already Rosengren (1974)

addressed the problem of separating motivations empirically from other concepts. However, he maintained the theoretical distinction between motivations and other concepts. Since then, some authors have discussed the problem, albeit briefly and mainly on a theoretical level (McQuail, 1979; Roe, 1996). We will also elaborate empirically on the subject. More specifically, we phrase our research question as follows: *is the theoretical distinction between 'motivations' on the one hand and other relevant concepts on the other hand, for instance 'needs' and 'media use', also empirically tenable?*

### 3. Two Competing Theories on the Validity of Motivation Measurements

As stated earlier, the motivation concept can be conceived of as an intermediate concept: a social or mental origin gives rise to a motivation, which in turn guides subsequent behaviour, for instance media use. The items designed to indicate such a motivation generally take the form of "(I) (watch/read/listen) (medium/content) (to/so/because) (reason)", for instance the item "I watch television to keep up with important events". They are composed of two distinct parts. The first part of the item refers actually to a *behaviour* (for instance: "I watch television"). The second one refers to the social or mental background of this behaviour, mostly a *need*, in our example the need to be informed (for instance: "to keep up with important events"). The two component parts are linked by a word indicating a causal relationship (for instance: "to"). The nature of the motivation concept as intermediate concept between needs and behaviour is thus reflected in the items designed to tap the motivations. In this section we present two distinct views on the validity of these measurements.

#### 3.1. CURRENT VIEW ON MOTIVATIONS

Today, most audience researchers, especially those working within the tradition of Uses & Gratifications research, consider motivations as latent characteristics that are not directly measurable or apprehendable by self-reflection. Consequently, they use several motivation items as indicators of one underlying motivation. Examples of such scales are the already mentioned Palmgreen et al. (1980) and Rubin (1981) scales. In short, according to these researchers, the motivation items may be considered valid indicators of motivations.

#### 3.2. THE DOUBLE-BARRELLEDNESS THESIS

As a challenge to the supposed validity of current motivation measures, we present a rival view on the nature of the motivation concept and the nature of the questionnaire items generally used to tap the motivations. Based on general guidelines for the construction of questionnaire items (Payne, 1951; Oppenheim, 1966) we state that the motivation items are double-barrelled. The items, even though grammatic-

ally correct, impose tasks on many respondents that are far too complex. Consider for instance the item “I watch television to keep up with important events”. We expect that respondents are being confronted with three statements, hidden in the wording of the item:

- (1) I watch television.
- (2) I consider it important to keep up with important events.

And, in case they agree with both of these statements:

- (3) I watch television to keep up with important events.

The reaction to (1) may be considered a reaction to a statement concerning *behaviour* (watching television). The reaction to (2) may be considered a reaction to a statement concerning a *need* (to keep up with important events). Only the reaction to (3) may be considered a reaction to the complete statement.

We expect that many respondents won't be able to accomplish such a complex task. Some others won't even be ready to do so. Instead, we expect that most of them – albeit unconsciously – will emphasize just one of the distinct statements: “I watch television” or “I consider it important to keep up with important events”. They might even react to both statements separately and subsequently weigh their reactions in order to achieve some sort of answer. In cases where such reactions are given, the respondents' scores on the item will constitute no more than an ambiguous mixture of some behavioural and need measurements.

A preliminary study, reported elsewhere (Hendriks Vettehen, 1998), provides some illustrations of the respondents' misinterpretations that may occur when they are confronted with the complicated task of reacting to motivation items. Following a procedure similar to Belson (1991), respondents were at first asked to respond to some motivation items. Next, they were asked to reconstruct the way they got to their responses, as it were, by recalling their thoughts while reacting to the statements.

It appeared that some respondents, during the first part of the interview, seemed to be fixated on the part of the item indicating the watching of a certain program. For instance, some of them reacted to the item “I watch sport programmes to let off steam” with “I totally disagree”, even before the interviewer had finished reading out the whole item. During the latter part of the interview, it appeared that they didn't like the type of program, they seldom watched it (often only because the partner wanted to watch the program) and for this reason they responded with “I totally disagree”.

Other respondents seemed to react exclusively on the latter part of the items, the part referring to the background of the watching behaviour. For instance, one respondent responded with “I don't agree, but I also don't disagree” to the item ‘I watch television because it makes me feel less lonely’. Next he commented as follows on his response: “sometimes I have this ... that it is the case ... that I feel lonely, but not always”.

Summarizing: the ‘double-barrelledness’ thesis suggests that the nature of the motivation concept as an intermediate concept between some behaviour and the

origins of that behaviour is reflected in the double-barrelled character of the motivation items. Any measurement of motivations based on these items can therefore largely be considered a mixture of behaviour and its social or mental origin.

#### 4. An Empirical Test of the Competing Theories

Of course, this 'double-barrelledness thesis' is rather provocative. We therefore designed a test in order to evaluate the value of our thesis empirically. The test comprised an empirical comparison of two competing measurement models, one model being based on the current view on motivations and the other model being based on the 'double-barrelledness thesis'.

##### 4.1. METHOD

We performed secondary analyses on data from a 1989 survey on media use in the Netherlands (Arts et al., 1990) because this survey included three analogous batteries of motivation items: items concerning the respondents' motivations for watching television (10 T-items), items concerning their motivations for listening to the radio (10 R-items), as well as items concerning their motivations for reading the newspaper (10 N-items). The three batteries of motivation items were spread across different parts of an extensive questionnaire in order to avoid a possible learning bias. For the same purpose, the order of the items varied between the three batteries. Applying a common procedure in Uses & Gratifications research, we theoretically categorized the 10 television (T) motivation items in three 'social use' items (TS-items), two 'information' items (TI-items), three 'relaxation' items (TR-items) and two 'escape' items (TE-items). We used the same categorization for the 10 radio (R) motivations items and the 10 newspaper (N) motivation items. Factor analyses on each separate set of 10 motivation items confirmed the categorizations (cf. Hendriks Vettehen, 1998).

As can be seen in Table I, the items for the three types of media use were exactly analogous. For instance, the TS3 item (Television/Social use item 3) was worded "I watch television because I recognize things that happen in my life too", whereas the NS3 item (Newspaper/Social use item 3) was worded "I read the newspaper because I recognize things that happen in my life too".

Next, starting from the current view on motivations and starting from the 'double-barrelledness thesis', we developed two competing measurement models as theoretical explanations of the observed variances and covariances in the entire set of 30 items.

##### *Model 1: A Measurement Model Based on the Current View on Motivations*

Starting from this view, we expected that clusters of items referring to the same underlying motivation for a certain type of media use would be interrelated relatively



Table I. Motivation items used to indicate motivations for watching television, listening to the radio and reading the newspaper

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<i>Motivation for watching television: social use items</i>	
TS1	I watch television to see whether others have a point of view similar to mine
TS2	I watch television to have things to talk about with friends, acquaintances and colleagues
TS3	I watch television because I recognize things that happen in my life too
<i>Motivation for watching television: information items</i>	
TI1	I watch television to keep myself informed about important events in the neighbourhood
TI2	I watch television to keep up with what's going on in the world
<i>Motivation for watching television: relaxation items</i>	
TR1	I watch television because it's a pleasant thing to do
TR2	I watch television because it's cosy
TR3	I watch television because it relaxes me
<i>Motivation for watching television: escape items</i>	
TE1	I watch television so I can forget my daily problems
TE2	I watch television because it makes me feel less lonely
<i>Motivation for listening to the radio: social use items</i>	
RS1	I listen to the radio to see whether others have a point of view similar to mine
RS2	I listen to the radio to have things to talk about with friends, acquaintances and colleagues
RS3	I listen to the radio because I recognize things that happen in my life too
<i>Motivation for listening to the radio: information items</i>	
RI1	I listen to the radio to keep myself informed about important events in the neighbourhood
RI2	I listen to the radio to keep up with what's going on in the world
<i>Motivation for listening to the radio: relaxation items</i>	
RR1	I listen to the radio because it's a pleasant thing to do
RR2	I listen to the radio because it's cosy
RR3	I listen to the radio because it relaxes me
<i>Motivation for listening to the radio: escape items</i>	
RE1	I listen to the radio so I can forget my daily problems
RE2	I have the radio turned on because it makes me feel less lonely
<i>Motivation for reading the newspaper: social use items</i>	
NS1	I read the newspaper to see whether others have a point of view similar to mine
NS2	I read the newspaper to have things to talk about with friends, acquaintances and colleagues
NS3	I read the newspaper because I recognize things that happen in my life too
<i>Motivation for reading the newspaper: information items</i>	
NI1	I read the newspaper to keep myself informed about important events in the neighbourhood
NI2	I read the newspaper to keep up with what's going on in the world
<i>Motivation for reading the newspaper: relaxation items</i>	
NR1	I read the newspaper because it's a pleasant thing to do
NR2	I read the newspaper because it's cosy
NR3	I read the newspaper because it relaxes me
<i>Motivation for reading the newspaper: escape items</i>	
NE1	I read the newspaper so I can forget my daily problems
NE2	I read the newspaper because it makes me feel less lonely

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strongly. For instance, we expected the three S-items indicating social use of television (TS1, TS2 and TS3) to be interrelated relatively strongly. The same reasoning applied to, for instance, the two items indicating an escape motivation for radio use (RE1 and RE2). In sum, we expected to distinguish four underlying motivations ('social use', 'information', 'relaxation' and 'escape') for three types of media use ('watching television', 'listening to the radio' and 'reading the newspaper'): in all 12 clusters of items.

In addition, we expected some interrelations between clusters of items referring to analogous motivations because these clusters would be likely to share a common psychological background. For instance, we expected interrelations between the clusters of items representing the 'escape' motivation for television viewing, the 'escape' motivation for listening to the radio and the 'escape' motivation for reading the newspaper, as all three motivations may share a common psychological background, for instance the need to escape from everyday problems. We assumed every other possible relation between the (measured as well as unmeasured) variables in the model to be non-existent.

The total of these expectations amounted to one measurement model as an explanation of the interrelations between the 30 motivation items. This model is shown in Figure 1.

#### *Model 2: A Measurement Model Based on the 'Double-barrelledness' Thesis*

Starting from this competing view, we assumed that a respondent will be likely to react more or less separately to both statements an item is being composed of. For this reason we expected that two separate factors may explain the respondents' scores on the item.

The first factor is a behavioural factor, referring to the type of media use mentioned in the item. For instance a 'television exposure' factor may partly account for the respondents scores on all ten motivation items concerning television viewing, thus producing covariance between the items. So, the more one watches television, the more likely one is to agree with any of the television motivation items.

The second factor is a factor referring to the psychological background of the media use mentioned in the item. For instance a 'need to escape' factor may partly account for the respondents' scores on all six motivation items concerning 'escape', thus producing covariance between the items. So, the more one feels a need 'to escape', the more likely one is to agree with any of the six items concerning 'escape'.

In all, we distinguished seven factors theoretically accounting for the observed variances and the covariances between the items. Three of these refer to the three types of media exposure ('exposure to television', 'exposure to radio' and 'exposure to newspaper'), the other four refer to psychological backgrounds. These psychological backgrounds may concern needs, interests or related characteristics. For the sake of convenience we employ the label 'need' for the four distinguished

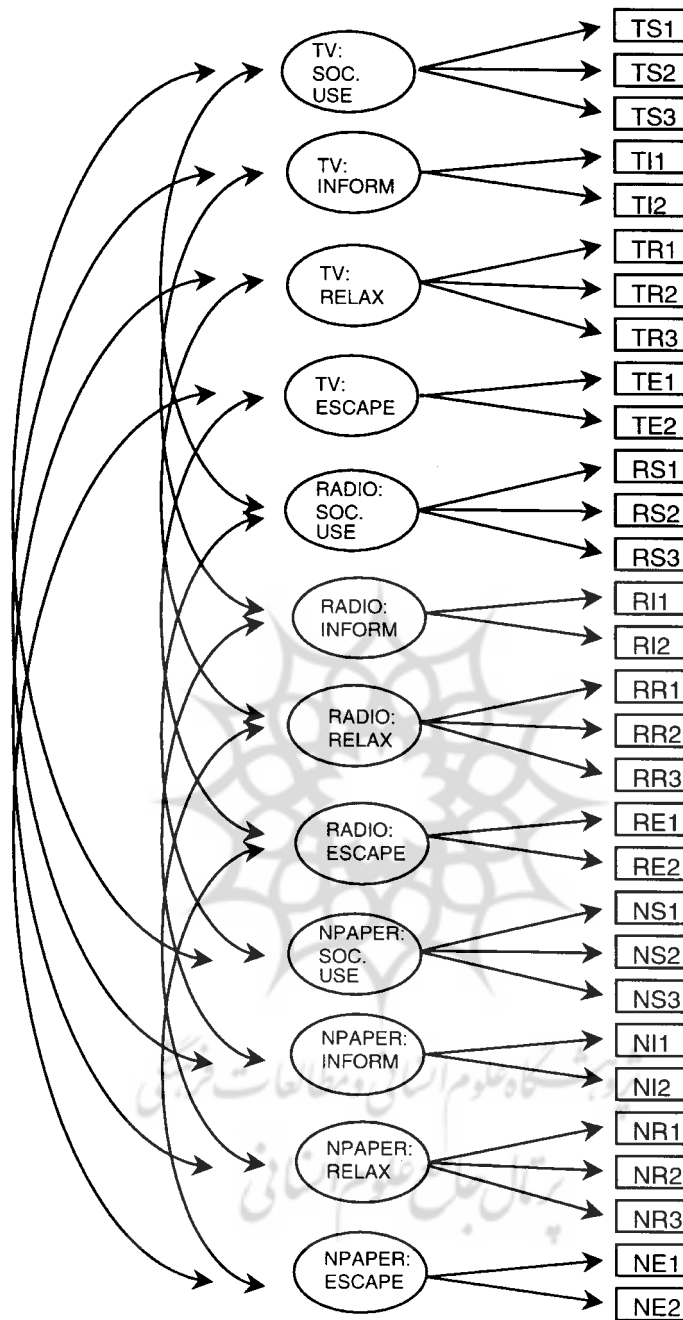


Figure 1. Explanation of correlations between the 30 motivation items according to the current Uses & Gratifications view on motivations.



psychological backgrounds ('need for information', 'need for relaxation', 'need to escape' and 'need for social or para-social interaction').

In addition, and in line with common research findings, we expected some interrelations between the three media use factors ('exposure to television', 'exposure to radio' and 'exposure to newspaper'). And also in this model, we assumed every other possible relation between the (measured as well as unmeasured) variables to be non-existent.

The total of these expectations amounted to the second measurement model as an alternative explanation of the interrelations between the 30 motivation items. This model is shown in Figure 2.

Having formulated the measurement models, we empirically tested both models. The sample on which both models were tested, originally consisted of 956 respondents, which can be considered to be largely representative of the Dutch population from 18 to 70 years in the year 1989. However, part of the respondents did not use all three types of media (television, radio, newspaper). As a consequence they did not respond to all the three batteries of motivation items. After listwise deletion of these respondents, we ended up with 832 respondents.

#### 4.2. RESULTS

An appropriate technique for estimating structural models with unmeasured variables and a number of fixed parameters is Lisrel (Jöreskog and Sörbom, 1993). We estimated all relevant parameters, as well as some 'goodness of fit' statistics for both models, using The Maximum Likelihood procedure provided by Lisrel VIII.

As a first impression of both models we might take a look at the standardised effects of the unmeasured factors on the motivation items, as well as the correlations between the unmeasured factors. Tables II and III provide this information for Model 1 (the model based on the current view on motivations), Tables IV and V provide the information for Model 2 (the model based on the 'double-barrelledness' thesis). It appears that for both models, almost all the predicted effects and correlations appear to differ substantially and significantly from zero. Only the effects of the 'need: relax'-factor on the three 'newspaper-relaxation' items (NR1, NR2 and NR3) in Model 2 disturb the general picture, the effect on one item (NR1) not even being significant ( $t = 0.97$ ,  $p < 0.05$ ; one-sided). So, with respect to these parameters, both models seem to perform reasonably well.

More important than the estimations of the individual effect parameters is of course information concerning the overall quality of the models. One way of obtaining this kind of information could be to look at the percentages variance within the items explained by the unmeasured variables, as shown in the right columns of Table II (for Model 1) and Table IV (for Model 2). However, as the Maximum Likelihood procedure is aimed at maximally reproducing not only the 30 variances within the individual items but also the 435 covariances between the items, we consider it more appropriate to evaluate the models according to general 'goodness

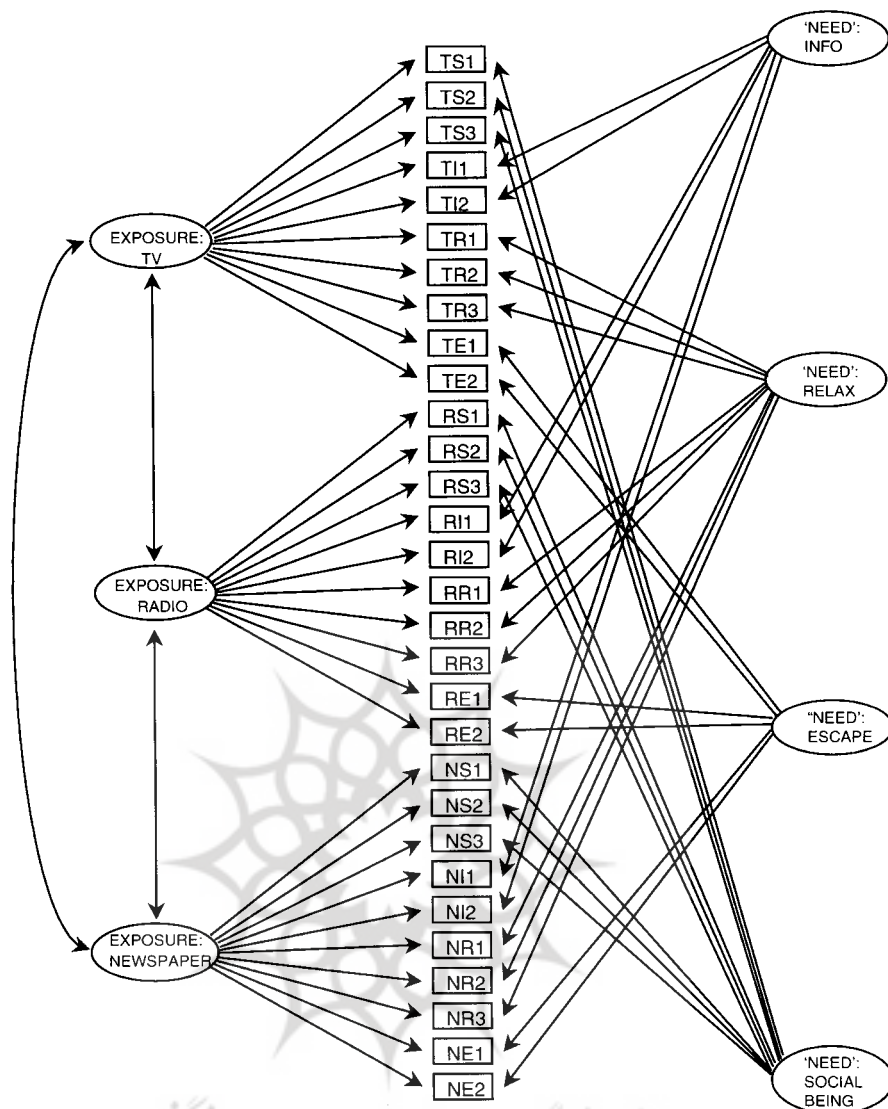


Figure 2. Explanation of correlations between the 30 motivation items according to the 'double-barrelledness thesis'.

of fit' statistics. Some of these statistics are shown in Table VI (for Model 1) and Table VII (for Model 2). In the following, we will evaluate both models according to these statistics, each of them having its own, distinct character.

A very common but rather crude 'goodness of fit' measure is the  $\text{Chi}^2$  measure, to be divided by the number of the 'degrees of freedom' (df) in the model. As a rule of thumb, Verschuren (1991: 305) considers a  $\text{Chi}^2/\text{df} < 3.00$  an indication of an eventually acceptable fit, a  $\text{Chi}^2/\text{df} < 1.00$  as an indication of a good fit. According

Table II. Analysis of correlations between the motivation items according to the current Uses & Gratifications view on motivations: Lambda-Y values (N = 832)

	Motivation for television viewing				Motivation for radio listening				Motivation for newspaper reading				$r^2(Y)$
	S	I	R	E	S	I	R	E	S	I	R	E	
	O	N	E	S	O	N	E	S	O	N	E	S	
	C.	F	L	C	C.	F	L	C	C.	F	L	C	
	U	O	A	A	U	O	A	A	U	O	A	A	
	S	R	X	P	S	R	X	P	S	R	X	P	
	E	M		E	E	M		E	E	M		E	
TS1*	0.68**												0.46
TS2	0.66												0.44
TS3	0.53												0.28
TI1		0.48											0.23
TI2		0.59											0.35
TR1			0.78										0.61
TR2			0.69										0.47
TR3			0.61										0.37
TE1				0.57									0.32
TE2				0.68									0.46
RS1					0.79								0.63
RS2					0.77								0.59
RS3					0.67								0.45
RI1						0.79							0.63
RI2						0.85							0.72
RR1							0.81						0.65
RR2							0.78						0.61
RR3							0.70						0.50
RE1								0.68					0.47
RE2								0.67					0.45
NS1									0.76				0.58
NS2									0.67				0.45
NS3									0.53				0.28
NI1										0.69			0.47
NI2										0.78			0.62
NR1											0.84		0.70
NR2											0.75		0.57
NR3											0.72		0.53
NE1												0.77	0.59
NE2												0.84	0.70

\*For the meaning of the abbreviated item labels, see Table I.

\*\*Lambda-Y estimation of standardised effects of the (unmeasured) motivation factors on the (measured) motivation items (completely standardised solution).

Table III. Analysis of correlations between the motivation items according to the current Uses & Gratifications view on motivations: Psi-values ( $N = 832$ )

	TV: Soc. use	TV: TV: Inform	TV: Relax	Radio: Escape	Radio: Soc. use	Radio: Inform	Radio: Relax	Radio Escape
Radio: Soc. use	0.60*							
Radio: Inform		0.48						
Radio: Relax			0.31					
Radio: Escape				0.71				
Newspaper: Soc. use	0.63				0.67			
Newspaper: Inform		0.51				0.34		
Newspaper: Relax			0.17				0.14	
Newspaper: Escape				0.59				0.54

\*Psi estimation of correlations between the (unmeasured) motivation-factors (completely standardised solution).

to this rule of thumb, the observed  $\text{Chi}^2/\text{df} = 6.96$  for Model 1 can be considered absolutely unsatisfactory, the  $\text{Chi}^2/\text{df} = 4.81$  for Model 2 is somewhat better but still unsatisfactory.

The AGFI 'goodness of fit' measure is also common but it takes more information concerning the model into account than the  $\text{Chi}^2$  measure, in particular the number of cases, the number of measured variables and the number of 'degrees of freedom'. Once more as a rule of thumb, Verschuren (1990: 305) considers an  $\text{AGFI} > 0.85$  an indication of an eventually acceptable fit, an  $\text{AGFI} > 0.95$  as an indication of a good fit. According to this rule, the observed  $\text{AGFI} = 0.78$  for Model 1 can be considered absolutely unsatisfactory. The  $\text{AGFI} = 0.84$  for Model 2 is near Verschuren's lower bound for acceptability, but it is still unsatisfactory.

Brown and Cudeck (1992: 231) argue that (socio-) scientific models are by nature simplifications of reality. According to their view, it hardly makes sense to test these models while assuming the possibility of a perfect fit. For this reason, they described an alternative measure of model fit, the RMSEA, a measure that takes the *a priori* imperfectness of any model into account. They regard an  $\text{RSMEA} < 0.08$  as an acceptable fit, an  $\text{RSMEA} < 0.05$  as a close fit (Brown & Cudeck, 1992: 239). According to this rule, the  $\text{RSMEA} = 0.085$  for Model 1 can be considered unsatisfactory. In contrast, the  $\text{RSMEA} = 0.068$  for Model 2 is acceptable.

A last 'goodness of fit' statistic we consider is the quite often used ECVI. The lower the value of ECVI, the better we may regard the fit to be. The value of ECVI depends, amongst others, on the number of parameters that have to be estimated. The more parameters that have to be estimated, the higher the ECVI (Boomsma, 1996, pp. 23–26). In Tables VI and VII we find an  $\text{ECVI} = 3.467$  for Model 1 and an  $\text{ECVI} = 2.377$  for Model 2. Despite the greater 'penalty' imposed on Model 2

Table IV. Analysis of correlations between the motivation items according to the double-barrelledness thesis: Lambda-Y values ( $N = 832$ )

	Exposure: TV	Exposure: Radio	Exposure: Newspaper	'Need': Info	'Need': Relax	'Need': Escape	'Need': Social being	$r^2(y)$
TS1*	0.35**						0.50	0.37
TS2	0.32						0.54	0.40
TS3	0.33						0.40	0.27
TI1	0.13			0.38				0.17
TI2	0.28			0.48				0.31
TR1	0.66				0.18			0.47
TR2	0.66				0.18			0.47
TR3	0.55				0.22			0.35
TE1	0.42					0.40		0.33
TE2	0.36					0.46		0.34
RS1		0.53					0.49	0.52
RS2		0.51					0.55	0.55
RS3		0.61					0.36	0.50
RI1		0.70		0.39				0.67
RI2		0.69		0.40				0.64
RR1		0.28			0.76			0.65
RR2		0.23			0.75			0.62
RR3		0.17			0.69			0.51
RE1		0.27				0.47		0.30
RE2		0.25				0.43		0.25
NS1			0.39				0.59	0.49
NS2			0.32				0.60	0.46
NS3			0.44				0.36	0.32
NI1			0.44	0.46				0.41
NI2			0.51	0.51				0.51
NR1			0.83		0.03			0.69
NR2			0.71		0.08			0.51
NR3			0.73		0.07			0.54
NE1			0.36			0.48		0.59
NE2			0.28			0.72		0.61

\*For the meaning of the abbreviated item labels, see Table I.

\*\*Lambda-Y estimation of standardised effects of the (unmeasured) exposure factors and 'need' factors on the (measured) motivation items (completely standardised solution).

Table V. Analysis of correlations between the motivation items according to the double-barrelledness thesis: Psi-values ( $N = 832$ )

	Exposure TV	Exposure Radio
Exposure Radio	0.15*	
Exposure Newspaper	0.16	0.17

\*Psi estimation of correlations between the (unmeasured) exposure factors (completely standardised solution).

Table VI. Analysis of correlations between the motivation items according to the current Uses and Gratifications view on motivations: some 'goodness of fit' statistics ( $N = 832$ )

CHI <sup>2</sup> (df = 393)	2736.7
AGFI	0.78
RMSEA	0.085
ECVI	3.467
ECVI saturated model	1.119
ECVI independence model	11.152

because of the greater number of estimated parameters (63 in Model 2 versus 42 for Model 1), Model 2 scores better on this 'goodness of fit' statistic than Model 1.

Summarizing: regarding the results on each of the four described 'goodness of fit' statistics, we have to conclude that the measurement model based on the 'double-barrelledness' thesis (Model 2) performs better than the measurement model based on the current view on motivations (Model 1). In absolute terms: according to the nowadays accepted rules of thumb, the performance of the 'double-barrelledness' model (Model 2) can be considered 'just acceptable'. In contrast, the model based on the current view on motivations (Model 1) has to be dismissed.

Table VII. Analysis of correlations between the motivation items according to the double-barrelledness thesis: some "goodness of fit" statistics ( $N = 832$ )

CHI <sup>2</sup> (df = 372)	1789.2
AGFI	0.84
RMSEA	0.068
ECVI	2.377
ECVI saturated model	1.119
ECVI independence model	11.152



## 5. Discussion

The results at hand give us the opportunity to formulate the following, at least tentative answer to the question whether the theoretical distinction between 'motivations' on the one hand and concepts like 'needs' and 'media use' on the other hand, is empirically tenable.

First, we developed the double-barrelledness thesis, which states that any measurement of motivations based on the current motivation items can be considered a mixed measurement of behaviour and its mental origin to a large extent. The thesis produced a fairly satisfactory model for explaining variances within and covariances between the motivation items in the test. In contrast, the traditional view in Uses and Gratifications research on these measurements produced an inadequate model for such an explanation.

Second, we have argued that the grammatical structure of current motivation items exactly reflects the nature of the motivation concept as a theoretical mediator between behaviour and its mental background. In this light, our double-barrelledness thesis is more than just a critical remark concerning the wording of a question. Ultimately, the validity of the concept itself is at stake.

We especially point to contamination problems that may occur in virtually all statistical analyses involving motivation items. As a typical example we mention the contamination that may occur in case we compute measures of association between motivation items on the one hand and need items or media-use items on the other hand. As an illustration, we performed a small analysis on data taken from the 1989 survey we used in the test. We computed correlations between a *need for companionship* (item: "do you feel lonely, once in a while?"), *television viewing for companionship* (item: "I watch television because it makes me feel less lonely") and *amount of television viewing* (a multi-item construct).

One correlation revealed that respondents who felt a need for companionship tended to watch television for companionship ( $r = 0.24$ ;  $p < 0.05$ , 2-tailed). Another correlation revealed that respondents who watched television for companionship tended to spend more time television viewing ( $r = 0.29$ ;  $p < 0.05$ , 2-tailed). It is tempting to conclude on the basis of these two correlations that the need for companionship is a rather strong motivation for television viewing. However, based on the double-barrelledness thesis and based on the other correlation, that conclusion may be questioned.

First, the dimension "I watch television" in the motivation item may account for at least part of the correlation between the motivation and the amount of television viewing. In turn, the dimension "it makes me feel less lonely" in the motivation item may account for at least part of the correlation between the motivation item and the need for companionship.

Second, a different conclusion can be drawn from the non-significant correlation between the need for companionship and the amount of television viewing ( $r = 0.02$ ;  $p > 0.05$ , 2-tailed). On the basis of this correlation we may conclude that

a need for companionship does not motivate the amount of television viewing substantially. Becker (1979) referred to this alternative of deducing motivations from an observed relationship between a behavior and its (social/mental) background as the 'inferential approach'.

Perhaps an elaborated alternative to the measurement of motivations may be found in the so-called 'Expectancy-Value' approach (Palmgreen & Rayburn, 1982, 1985), particularly in the application of the measurement  $b_i \times e_i$  as a determinant of media exposure (with  $b_i$  = belief that some object of exposure possesses attribute  $i$  and  $e_i$  = evaluation of attribute  $i$ ). Babrow and Swanson (1988) empirically elaborated on this subject. They compared two structural models of determinants of student news exposure, one model using motivation (gratifications sought) measures and the other model using  $b_i \times e_i$  measures. Because of some discrepancies between the models, the authors concluded "that it is unlikely that  $b_i e_i$  are simply alternative measures of exactly the same underlying construct" (Babrow & Swanson, 1988: 16). However, at least some of the discrepancies they observed may very well be explained by the 'double-barrelledness' thesis. For instance, only in the model using motivation measures, the authors found direct paths between the motivations for a behaviour on the one hand and the behaviour itself (tv news exposure) on the other hand. This direct path may be a result of the contamination between the behavioural 'barrel' in the motivation items and the measurement of the behaviour.

Of course, we should not dismiss the motivation concept or its current measurement instruments and start looking for alternatives on the basis of the present test only, not the least because this test has its limitations. Notably, in Study 2 we had only 10 analogous motivation items (for each type of media exposure) available in the dataset to represent four motivations. So, for instance a partial replication of this study, using the Palmgreen et al. (1980) or Rubin (1981) scales (adapted to various kinds of media use) might be a subject for further research.

However, we do hope this study may at least provide some food for critical thoughts on the validity of the motivation concept and its current measurements. We also hope it may stimulate further research, even although this task is far from easy, as validating and theory-testing are very much entwined. It also entails the risk of ultimately having to ask ourselves the unpleasant question: why clinging to a concept that is not empirically separable from its theoretical causes and consequences? But even after half a century research on 'motivations' for media use, that risk should be taken.

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