

# TOWARDS A MORE COST EFFECTIVE ROUTE FOR EVALUATING MEDIA IN TERMS OF COMMUNICATION EFFECT

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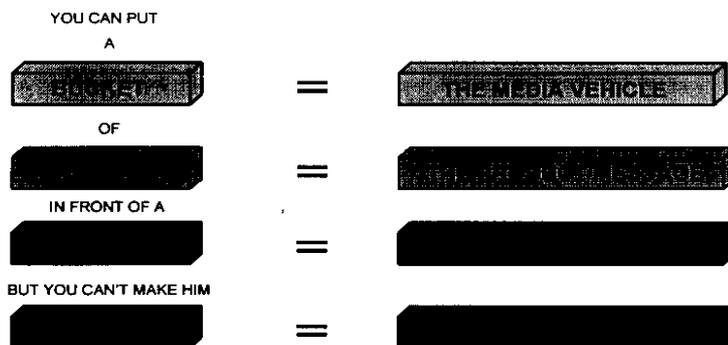
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Media research is arguably a misnomer. Advertisers seek to communicate with individuals, it is they who buy their products. Media (although not always neutral) are simply the vehicles that carry advertising messages to individuals and are largely interchangeable. Our thesis is that the primary focus in media research should be people not media.

An analogy helps to give some perspective to the role of the carrier vehicle (the media) in the process of effecting communication.

You can put a bucket (the media vehicle) of water (the product/message) in front of a horse (the person/consumer) but you can't make it drink or even look at it (the effect). Now if I'm an advertiser selling water to the 'horse' market I want to know which ones are most likely to drink - and the answer is the thirsty ones.

## COMMUNICATION EFFECT

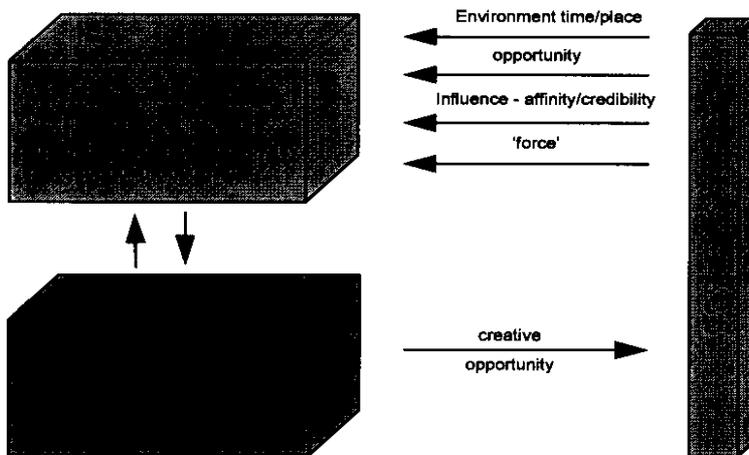


This rather self evident answer is very largely ignored in media research because we focus so much data collection effort on the vehicle (the bucket) and not the consumer. We rarely measure an individual's product experience and loyalty, product or subject interest or purchase intentions in 'media' surveys. These primarily determine whether a reader will choose to absorb (allow through his/her selective perception) an advertising message.

The following schematic attempts to demonstrate what is happening at the point of exposure. The person is (given the opportunity to be) confronted by the product message. It is his (her) previous experience, interests and intentions tempered by the circumstances at the point of exposure (personal mood, orientation) which will determine how effective communication is.

### The Point of Exposure

(OPEN EYES IN FRONT OF)



But one exposure (opportunity) does not (normally) create effective communication. This 'point of exposure' has to be multiplied many times (perhaps with exposures from a variety of vehicles) to create the required learning and to maintain that learning for a period of time (bearing in mind the 'unlearning' being created by competitive messages). The planner's task is to design a distribution of advertising 'exposures' against population segments defined according to their likely 'learning' and 'forgetting' curve. A thirsty horse needs much less 'advertising' pressure to get him to drink water than one who is not thirsty or even one who has developed a brand loyalty to drinking only Orangina!

Different types of carrier vehicles will undoubtedly influence the communication process differently. The owner can present the bucket personally (influence/affinity), rattle it with a stick or even put the horse's nose in it ('force'). But the difference between similar vehicles (red, blue and green buckets) may be quite small.

At the last Readership Symposium, Hilary Cade gave a very succinct review of the work on 'qualitative' measures of media RSL had undertaken on behalf of the UK National Readership Survey. It covered respondent's ability to understand and answer a wide range of questions including reading frequency, time spent reading, proportion of copy read, way in which publication read, how useful in work, 'favourite publication', reaction if the title were no longer available, mood (in relation to the publication), source of copy and place of reading.

In the spring of 1994, TIME Magazine funded a large large scale pilot study for what has now become E.M.S., (the European Media and Marketing Survey). Many of these 'qualitative' measures were field tested in the EMS pilot.

TIME's advertising market place had been indicating the need for a media research survey amongst a much more broadly based universe than the then currently available pan European surveys, and which, amongst other issues, provided more data on the 'qualitative' values of media.

The EMS pilot conducted by InterView in 6 countries (UK, France, Germany, the Netherlands, Italy and Switzerland) produced a sample of some 2500 respondents representing a 22 million universe.

The study was conducted in two phases, first the telephone interview 'screened' in the main income earner of the top 20% of households by income, and then collected media data plus a limited amount of classification data. Second, telephone respondents were then sent a self-completion questionnaire containing the detailed classification data.

The study had as its main objective the establishment of print media relationships in the wider universe using telephone interviewing (as opposed to the traditional personal interview). It was also to test the feasibility of collecting a wide range of 'qualitative' media data by telephone, and to see what discriminatory power these measures had between media - and their usability by both planner and salesperson.

The pilot questionnaire sequence was as follows:

After a 'read in the last year' filter respondents were asked 'recency of reading' (undisclosed scale) followed by age of copy (most recent issue or not) and source of copy, and then reading frequency.

For titles read at least 2 of 6 issues (to a maximum of 4) respondents were then asked a series of 'qualitative' questions.

- where read
- number of reading occasions
- time spent reading
- proportion of issue read
- reasons for reading (professional/personal) - activities resulting from reading (including sent off for product advertised)
- attribute statements (scaled to 5 points)  
(e.g. I always look forward to an issue of...)

Table 1 provides the results for 'times picked up', 'time spent reading' and % of all pages read. These results are certainly explicable - if not that easy to use for advertising sales purposes!

Table 1

### Weekly Magazines

	Internationals				German		French			
	issues read of A		issues read of B		issues read of C		issues read of D		issues read of E	
	2-3 %	4-6 %								
<i>Times picked up '3+'</i>	6.5	7.8	4.8	3.8	61.9	74.3	69.7	70.7	31.1	60.3
<i>Time spent reading '1+ hours'</i>	20.2	30.1	17.2	-	54.2	66.2	35.8	68.3	32.7	44.5
<i>% of pages read 'all'</i>	66.0	75.5	42.0	59.1	32.8	58.6	33.1	49.9	32.2	35.0

Source : EMS Pilot 1994 TIME/InterView

The international newsweeklies run 84 page issues, the national newsweeklies getting on for 200 pages. It is not surprising therefore that the national titles get picked up more (60% are picked up 3 or more times) and there is more time spent reading (50% spend 1 or more hours reading) while the proportion of the issue read is considerably lower than for the internationals. However, this last result may not only be a function of overall issue size but of the advertising/editorial ratio. The M.A. findings reported by Speetzen and Wiegand at the last readership symposium suggest that respondents 'discount' advertising pages in their answers to a 'proportion of issue read' scale. The relative position of nationals may therefore be understated.

The second problem relates to the fact that the 'quality' data (for questionnaire length reasons) was collected only from those reading at least 2 out of 6 issues. An analysis by frequency of reading shows a very strong discrimination. Regular (in this analysis 4-6 of 6) readers relate much more closely to the publication. They pick it up more, they spend more time with it and they read more of the pages.

If titles are compared on regular readership then a large proportion of readership is ignored. If they are compared on all (2-6 out of 6 readers) differences due to the reading regularity profile are ignored.

The comparisons should really be made on the basis of 'single' issue reach which for statistical reasons should be derived from (weighted) frequency claims rather than the direct AIR claim - which can be very unstable for low coverage titles in surveys with relatively low sample sizes. However, neither is possible (in this case) as the 1, or less than 1, out of 6 claimants were not asked the qualitative questions.

Similar differences can be observed for the attribute measures results between regular and irregular readers.

Table 2

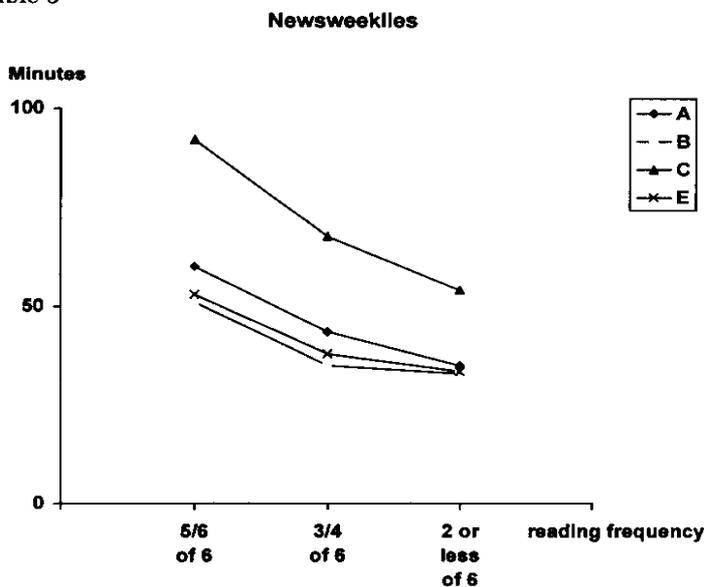
	Internationals				German		French			
	issues read of A		issues read of B		issues read of C		issues read of D		issues read of E	
	2-3 %	4-6 %								
<i>Credible</i>	4.0	12.9	2.6	8.7	7.4	18.0	6.4	15.8	9.2	3.5
<i>Look forward to</i>	3.1	18.5	-	-	1.8	16.8	0.0	12.5	0.0	3.8
<i>Keeps me up to date</i>	9.8	30.1	0.0	14.6	3.5	15.7	0.2	2.2	6.4	10.2
<i>Finds ads.interesting</i>	0.0	5.8	-	-	-	0.2	-	-	3.3	3.8
<i>I'm a loyal reader</i>	0.1	10.3	0.0	2.0	1.6	21.9	-	3.6	2.2	17.5
<i>Take time to read it</i>	7.4	19.3	4.5	1.0	6.4	23.9	0.5	3.1	3.9	12.7
<i>Leader in field</i>	16.0	16.8	5.5	20.6	15.5	18.9	-	0.5	3.3	3.3

Source : EMS Pilot 1994 TIME/InterView

Generally regular readers can be seen in Table 2 to report much stronger agreement with the attributes than irregular readers - and within the constraints of sample size - to do so with more consistency between titles. That is to say these attribute measures discriminate less amongst regular readers. Almost by definition, if you are a regular reader, you hold strong positive views on the titles.

Of course the relationship between 'qualitative' measures and reading frequency is by no means a new finding. Experimental data from PES 4 conducted by RSL in 1989 established clear relationships between time spent reading and reading frequency (see table 3) and Dr Timothy Joyce showed us the strong correlation of MPX scores with reading frequency (and time spent) in his paper at the Salzburg 3 Symposium.

Table 3



Source : PES 4 - RSL Ltd

The third problem is how to practically apply these values in the planning process.

Given that we collect reading frequency data and many 'qualitative' exposure and attribute measures correlate strongly with it, why not apply 'quality' (communication effect) weights to individuals according to their frequency of reading a publication. Here is a set of data drawn from the Orvesto Konsument (95.1) survey in Sweden. The SESAME post analysis software provided with Orvesto Konsument permits planners to apply 'communication probability weights' (between 0.5 and 1.00) to each of the 6 points on the reading frequency scale. Table 4 provides an example based on main household shoppers (responsible for half or more of the shopping) and who buy anti dandruff shampoo at least once a quarter (13.6% of the Swedish population).

Table 4

	<i>main h'h shopper and buys anti dandruff shampoo 1+ per qtr %</i>	<i>main h'h shopper and buys anti dandruff shampoo 1+ per qtr frequency of reading weights applied+ weighted %</i>	<i>coverage index Col 2/Col 1</i>
Må Bra	7.4	5.3	73
Kommunal Arbetaren	15.7	14.7	94
Vå Bostad	23.1	20.6	89
Hemmets Veckotidning	9.5	7.3	76
Allers	11.2	9.0	80
Hemmets Journal	10.7	8.7	81

*+ read all/almost all 1.00, read 3 out of 4 0.8, read 2 of 4 0.7, read 1 of 4 0.6, read almost none 0.5. The weights were applied equally to all 6 titles, but need not have been. Planners can change weights between titles as well as within frequency groups.*

In this example weighting the frequency claims by a 'likely exposure' weight produces a good discrimination between titles, and this is undoubtedly a better approach than applying a single overall advertisement exposure weight. But the problems are evident. The absolute values between titles at each frequency position have to be largely guesswork and while the 'gradient' of likely exposure appears fairly similar between titles (table 3), it will probably be unreliable where the nature of a title gives rise to very frequent read or look at claims (e.g. a controlled circulation titles) or rather irregular claims where there can still be an intense readership (e.g. special interest titles).

We need therefore to look further for a practical research and application solution. If we go back to the schematic of the 'point of exposure' we can categorise media 'qualities' into four and then try to put a perspective on their likely influence in the communication process.

**Environment** - what sort of 'mood' will the recipient be in when receiving the opportunity to see. Is he in a receptive mood to receive new messages/ideas or is he preoccupied. Clearly the time and the place can affect this. Late night reading/viewing when the kids are in bed is different from snatched morning reading/viewing at the breakfast table, or office reading when the mental focus may be largely business. Much of the 'environmental' information about media is self evident, but real 'mood' comes from within a person and is largely unpredictable. Nevertheless, when focused on the person, is an important area of future investigation.

**'Opportunity'** - Reducing the 'issue' exposure opportunity to the 'advertisement' exposure opportunity. Not everyone reads/looks at every page of an issue and this will vary between publications. If you don't see the spread, you can't respond to the advertisement however interested. Attempts to measure this 'loss' include page traffic studies, APX/MPX and 'proxy' measures like time spent reading, proportion of issue read as well as regularity of reading itself (already collected and with which the other measures correlate quite highly). The RSL pilot work highlighted many problems respondents had in answering these kinds of questions.

The major AGMA research in Germany, which broke new ground to establish APX measures for use as a second exposure probability within the Media Analyse, appears to have made relatively little impact on relative print media positions (coverage and c.p.t.) or schedules finally utilised. One has to question whether, from a media planning and research viewpoint, this is a cost effective approach in terms of the data generated - although it may still be from a media sales viewpoint.

**Influence** - a 'speaker' can add credibility to the message by his own status or his presentation. This concept is applied to media by establishing relationships between reader and publication - reading regularity, my 'favourite' title, how much it would be missed (if it dies, I die), editorial attributes (I believe every word within it!). Such measures apply to the editorial product and not the advertisements contained within the medium. It therefore requires a further concept of editorial 'rub off' on the advertising to link these attributes to any possible advertising effect.

As we have seen from the EMS pilot most of the attribute scores are heavily influenced by reading regularity. On the whole regular readers give high attribute scores - otherwise they wouldn't be regular readers. So these attribute measures are not particularly good discriminators - other than for the obvious editorial related questions. Furthermore care, as has been pointed out, must be used in interpreting such data as observed difference between titles on the basis of 'read in last year' or AIR can largely be a reflection of a different composition of reading regularity claims.

**Force** - media vehicles act in different ways. Television 'forces' its message on anyone in viewing or hearing range whether they are interested or not. Print on the other hand requires active selection of the advertisement by the (interested) reader. The combination of two different kinds of 'force' may produce a 'multiplier effect'. The work of Alan Smith (inter alia) should be noted in this respect. However, variations in 'force' values will be limited within one media group (e.g. magazines).

Coupled to relative 'force' is the creative opportunity. The expression of the message in a large space unit or time slot (rather than small) with sound and movement (rather than static print) can be quite different and create different emotions and communication values.

Here we move into the realms of advertisement testing on the one hand, and campaign effect tracking on the other. But within such analysis the importance of a population segmentation by interest and intention is critical to observing different response levels to given weights of advertising (opportunity).

***Can we therefore find (more cost effectively) a better discrimination of likely 'communication effect' between media vehicles by describing readers (consumers) according to interest levels?***

Rather than trying to reweight media audiences as a block (as you do when you apply media 'quality' weights) why not evaluate media according to the number of consumers delivered with 'equal' product interest (= equal advertisement attention), this being the dominant communication factor (our hypothesis) rather than any of the 'potential' vehicle effects.

This is not an original concept, Jarko Cerha developed his T.E.M model (Target group, Effect data and Media data) in the late '60's (reference Selective Mass Communication, Cehra 1967). Out of this, steered by Ingemar Lindberg, has grown the Orvesto Konsument surveys from IMU-Testologen. These serve the Swedish media industry providing multi media and market data. (There is no J.I.C. organisation in Sweden).

The Target group data collected by Orvesto Konsument contains:

- Demographics
- Shopping habits (stores used and frequency)
- Interests, on a 7 point scale (both general and product).
- Intentions to purchase (cars and durables)
- Travel
- Insurance/Banking
- Foods by brand                    } alternates
- Non foods by brand                }

For those of you not familiar with Orvesto Konsument, the survey is based on a single stage random sample of adults 15-79 drawn from official and current files of all citizens. Data is collected by means of a 20-28 page self completion questionnaire delivered and returned by post. Fieldwork is in three phases - spring (contains non food brand usage), summer, and autumn (contains food brand data). The achieved annual sample is 20,000 and response rate is in the order of 70%.

With Orvesto Konsument data we can demonstrate the power of product or subject interest claims to discriminate between media as well as product usage or intentions to buy. First we can describe a target audience 'normally' using demographics/product usage. Then we can add the interest criteria to distinguish different levels of likely 'communication' effect.

We have taken 2 examples. The first, a low cost repeat purchase item (anti dandruff shampoo) and second a high cost durable (an estate car costing £15,000).

**Example 1 - Anti dandruff shampoo**

A first stage target market definition might be those who are responsible for purchasing their household supplies (50% or more of the time). Column 1 provides the (single issue) coverage for 6 titles within this target description.

**Anti-dandruff Shampoo**

	Column 1 BUY for Household (50% or more)	Column 2 BUY for Household (50% or more)  and PRODUCT BUYERS of competition (sometimes) ACO or CLEAR	Column 3 BUY for Household (50% or more)  and PRODUCT BUYERS of competition (sometimes) ACO & CLEAR and PRODUCT INTEREST very/rather interested hair care	Column 4 BUY for Household (50% or more)  and PRODUCT BUYERS of competition (sometimes) ACO & CLEAR and PRODUCT INTEREST very/rather uninterested hair care
Universe % all adults	68.9	15.1	7.2	1.7
	Cover %	Cover Index Col. 1	Cover Index Col.1	Cover Index Col.1
Må Bra	7.1	86	130	86
Kommunal Arbetaren	13.7	88	149	88
Vår bostad	22.0	86	111	86
Hemmets Veckotidning	9.0	89	150	100
Allers	10.7	88	135	88
Hemmets Journal	10.7	92	158	92

**Source: Orvesto Konsument 95/1**

At a second stage we might refine this definition by including those who are irregular buyers (i.e. non loyal) buyers of competitive products (ACO and CLEAR). The coverage results for the same titles are shown in Column 2 as an index (based on Column 1). The addition of the product purchase requirement shows very little discrimination (in this case) between the 6 titles (the index range is 86 to 92) and further the 6 titles can be seen to be non selective i.e. their coverages are lower amongst product buyers than amongst all those responsible for household purchasing.

At the third stage we can further evaluate the audience of these titles on a base of people with likely equal 'communication' response - namely who are 'very or rather interested' in hair care. Column 3 show first a strong selectivity of these 6 titles towards these 'very/rather interested' people, and second a strong discrimination between titles with coverage indices ranging from 111 to 158.

A similar analysis amongst the 'not and very uninterested' shows negative selectivity and almost no discrimination between titles, as all titles contain similar proportions of this uninterested group.

**Example 2**

Defining the target market for the estate car was approached in two different ways. First demographically (plus interest in cars) and second likelihood of purchase (plus interest in cars).

Column 1 defines the target (demographically) as households with 4 or more persons and a household income of £21,000 p.a. and shows the resulting single issue coverage for 6 titles.

**Estate Car £15,000+**

	Column 1	Column 2	Column 3	Column 4
	h/h 4+ persons £21K + h/h income	h/h 4+ persons 21K + h/h income and very/rather interested in private cars	very/rather likely to buy a new estate car £14K+ in next year	very/rather likely to buy a new estate car £14K+ and very/rather interested in private cars
Universe as % of all	20.9 % coverage	9.0 Cover index Column 1	3.9 %	2.1 Cover Index
			Index on Column 1	
Dagens Industri (D)	7.8	140	20.1	118
Affärvärlden (W)	3.0	117	10.2	114
Manads Affärer (M)	3.6	133	10.1	102
Veckans Affärer (W)	3.9	118	11.3	111
Automobile (M)	1.6	206	2.2	186
Calling (Q)	3.8	155	7.4	136

**Source: Orvesto Konsument 95.1**

Adding the interest (very/rather interested) requirement shows again both selectivity for these titles and major discrimination between them with coverage indices (based on Column 1 coverage) varying between 117/118 for the weekly business titles to 206 for the car magazine.

We can repeat the analysis using in the target definition 'intentions to buy' defined as those who are 'very/rather likely' to buy a new estate car (in next year) spending over £14,000. In column 3 we can see that the first 4 general business titles, increase their coverage in this specific target by some 2.5 - 3.5 times (compared to column 1) while the special interest titles (car/telecommunications) hardly double.

However, when we add into the target definition an 'interest in private cars' requirement (very/rather interested) we find not only a higher selectivity by these titles but also a strong discrimination between them and in favour of the special interest titles.

It appears that the likelihood to purchase question 'defines the market' delivered by the title (not so good for the special interest titles) but the interest requirement 'defines' the likely communication relatively between titles (good for the special interest titles - since they are bought for their particular subject matter).

It is our contention therefore, that the media researcher can better, and more cost effectively, serve the planner by including purchase intentions or usage/loyalty data along with product and topic area interest - rather than pursuing within mainstream media studies, very laborious 'proxy' measures of vehicle effect.

These views and the results of the pilot helped to shape the design of full EMS survey (the European Media and Marketing Survey). This study is representative of the top 40 million main income earners in households, throughout the EC, Norway and Switzerland, where the household income is approximately twice the national average.

The survey is funded by pan European television stations as well as national and international press advertisers and advertisers. The need to collect roughly equivalent TV data to print in the initial telephone interview left virtually no room for print media 'quality' questions.

Nevertheless the print media owner felt agencies were still placing a high priority on vehicle effect measures. A partial re-orientation of the questionnaire took place including in the self completion questionnaire.

purchase intention data = air travel, holidays, durables  
interests in = sport, hobbies, cultural subjects, travel, the media

which provide a certain ability to define target markets as we have seen with Orvesto Konsument.

The source of copy question we retained (largely for circulation marketing reasons) in the telephone interview, plus time spent reading by regular readers for a limited number of titles. Media attribute questions were limited to 7 and asked of only 14 leading national and international titles and placed in the 'You and the Media' section of the self completion questionnaire. In this way it was possible to retain practical 'communication effect' measures as well as include a very large section on TV viewing behaviour. Results from EMS will be available in April '95 and will be reported at a later date.

Our conclusion's, given that time is a scarce resource in the interview situation, that the primary questioning focus to determine likely communication effect should be on the individual (his mood at reception and his interests and not the media vehicle). Interest measures have shown to be powerful discriminators between media and 'mood' at the time of exposure opportunity identified as an important area of investigation.

Once we have established the possibility of segmenting (as in Orvesto Konsument) the target audience into likely levels of 'effective communication' (like high product interest/intend to buy) we can evaluate media individually and in combination and we can then start to establish the relative advertising weight requirements. Some segments will need little advertising pressure, others (like those with medium product interest and users of a competitive brand) will need a lot more weight. It is then the planner's task to use his scarce (budget) resources and distribute his available 'effective communication' exposures to maximise overall response.

For this he needs to be able to model the way advertising exposures from different media schedule options distribute across his defined target response segments. For this the primary focus is the frequency of (reading) scale. This is the subject of a later paper in the symposium from Paul Sumner and Peter Masson.

