#### INTRODUCTION

"The method of properly conducting one's reason and of seeking the truth in the sciences."

Rene Descartes, Discourse on method

In our paper for the second readership research symposium, held in Montreal in 1983, Joop van Vliet and I proposed hard core readership (HCR) as an alternative to Average Issue Readership (AIR). One of the many advantages of HCR we claimed, was a better representation of advertising exposure than obtained by AIR. We had, however, not sufficient evidence to prove this statement.

At Cebuco we felt that it would contribute to the acceptance of HCR, if we were able to demonstrate that hard core readers are much more likely to be exposed to advertising than incidental readers.

Therefore we were looking for a suitable method to measure advertising page exposure. The most important criteria for selection were:

- applicability in 'standard' large scale media surveys
- validity
- reliability
- specification

From the many alternatives, ad recognition seemed the most promising to us. However, before starting a major study, we wanted more information about the validity and reliability of the specific technique we had in mind. To do so a pilot study was developed and the results will be reported and discussed in this paper.

While our main objective is to demonstrate that hard core readers are more exposed to advertising than incidental readers, the main objective of the pilot study is to find out

whether the technique (ie recognition) to be used, will have an acceptable degree of validity and reliability.

#### DISCUSSION OF THE METHOD

If we doubt the answers of respondents on their general reading behaviour, we have to question even more their self-reports on specific reading behaviour. But one way or another we need to call on the respondents memory, to recollect (recent) reading behaviour and all major readership surveys and ad exposure studies are in fact doing so.

The discrepancy between what a reader reports, and what was actually seen, cannot be ignored.

We have to reckon with two types of error: overclaim (incorrectly reported as `seen') and underclaim (incorrectly reported as `not seen').

In our case it is not only important to know how often these errors occur, but also whether overclaim and underclaim are more found among specific groups of readers and for specific topics.

In other words are overclaim or underclaim due to memory decay only or are answers also biased by the content of the pages in the study? There is a tendency anyway that people are more willing to admit they have seen editorial pages than those containing advertising messages.

#### RECOGNITION MEMORY

Before I describe the pilot study I shall make some more or less theoretical remarks on recognition memory. The task a respondent has to fulfil is to decide for each single stimulus (editorial or advertising) 'Yes, I have seen it before' or 'No, I have not seen it before', depending on some 'feeling of familiarity' compared with what is stored in memory.

It is presumed now that the respondent resolves his (or her) decision problem by choosing a criterion on the familiarity axis that partitions the range into a region of acceptance ('seen before') and a region of rejection ('not seen before').

The criterion will vary from respondent to respondent. Furthermore it is assumed that a stimulus that in reality was seen before, will cause a more positive 'feeling of familiarity' than a stimulus that was not seen before.

Consequently the probability for a true acceptance ('hit rate') will be greater than the probability for a so-called 'false alarm'.

With the Recognition Confusion Control Method (RCCM) it is possible to check the validity and reliability of recognition. By validity I mean simply: is the respondent reporting the outcome of the decision based on familiarity between stimulus and memory trace only? If so, we may conclude that errors are due to weak memory traces. By reliability I understand the accuracy with which the decisions 'seen - not seen' are made. The RCCM operates by presenting also stimuli to the respondent, that cannot have been seen before.

Thus we have a measure for overclaim. We are not able however to check for underclaim.

Since we have chosen for self-reporting the past but real life behaviour, we cannot force exposure to all the relevant pages: we have no way of being sure that people who report no exposure did not in fact see the relevant page.

## RESEARCH DESIGN

The pilot study is linked to the NIPO Media Survey 1983/84. In week 44 (29 October-3 November 1983) a number of additional questions were asked of everyone who had read *Libelle* (a woman's weekly magazine) at least once.

## 1 Cover recognition

At first five different covers were presented, of which the date and the issue number were made illegible. Four of these covers were from the most recent issues of *Libelle* and the fifth one was from a future issue. The question was: which one of these issues of *Libelle* was read or looked at last?

## 2 Additional questions on last read issue

When did last reading take place? Is issue still in possession and is reading finished? For the future issue, the source of copy was asked about, and when exactly it came into possession.

# 3 Recognition of editorial articles and advertisements

Respondents had to leaf through a booklet with about 20 editorial articles and 20 advertisements from *Libelle*. Half of the 40 pages were reproduced from the last read issue, but the other half from the future issue.

The editorial articles cannot have been seen before, but for the advertisements this is less certain. Those advertisements were selected that had not been inserted in four earlier issues of *Libelle*. It remains possible, however, that an advertisement from the future issue had been seen recently in another magazine.

The respondent had to indicate for each page whether he/she had seen it in the last read issue ('don't know' was possible).

We do not know how far recognition was influenced by using booklets instead of real issues of *Libelle*.

The respondents were told beforehand that not all pages were from the last read issue.

#### Interest

Afterwards the respondents had to leaf through the booklet once more and indicate their interest in the subject on each page with a ten-point scale.

## **Findings**

316 respondents were readers of *Libelle*, but only 203 could be used for further analyses. 27 respondents did not complete the additional questionnaire, 44 claimed to have last read the future issue and 42 had not read one of the four most recent issues.

According to the question 'read in the last seven days' 150 readers belonged to the AIR of *Libelle* and had read one of four recent issues.

#### Cover recognition

The most recent issue (number 43) is read last by 25% of the 316 readers of *Libelle*, number 42 by 17%, number 41 by 18% and number 40 by 13%.

The future issue (number 44) was said to be read by 14% and the remaining 13% probably read a less recent issue.

The recent issue 43 is read by 31% of the AIR and 51% of subscribers.

These results are completely different from those of other research on age of copies read.

The claim that the future issue was read does not vary much over categories of readers - 14% of subscribers also make this claim - which means that cover recognition is a difficult task for respondents and in the case of *Libelle* rather confusing.

## When read last (in particular issue)

The most recent issue was read seven days ago or less by 85%, and today or

yesterday by 34%. For the issues numbers 40 and 41 we find 54% read two weeks ago or more. If we compare the answers 'read seven days ago (or less)' in the main and additional questionnaire, we find only a poor correlation.

#### TABLE 1

Additional questionnaire	Main questionnaire		
	Seven days ago %	Longe %	er ago %
Seven days ago Longer ago	58 <u>13</u> 71	13 <u>16</u> 29	71 <u>29</u> 100

## Recognition of pages (booklet)

As discussed above, with recognition two types of error may occur: overstatement and understatement.

The RCCM allows us to say something about the occurrence of overclaim.

For all pages the 'hit rate' is 39%, for editorial pages 47%, for advertising pages 31% and for mixed pages 37%. The 'false alarm' scores were 17% for all pages, 15% for editorial, 18% for advertising and 19% for mixed pages.

There is a clear distinction between the most recent and the least recent issue. For advertising pages the 'hit rate' is 32% and 24% respectively and 58% and 30% for editorial pages.

A similar result is found for read 'today/yesterday' and 'more than one week ago' with 37% and 31% for advertising pages and 54% and 42% for editorial pages.

## A measure for reliability

The question remains: Is a 54% true recognition ('hit rate') indeed better than 42%? As was argued before, not all people will use the same decision criterion. So a higher 'hit rate' does not prove a better memory trace. To compare the scores of different people we have also to take the 'false alarm' into account, by looking at Table 2.

#### TABLE 2

Recent issue	Page from Future issue	: Total
Α	В	A + B
<u>C</u>	<u>D</u>	<u>C + D</u>
A + C	B + D	A+B+C+D
	Recent issue A <u>C</u>	issue issue  A B  C D

We are interested in the 'false alarm cell' with its frequency B. The smaller B is in relation to A + B, the higher is the reliability. As a measure of reliability we now use the coefficient of homogeneity H of Loevinger.

H is defined as: 1 - B (A+B+C+D)/(A+B)(B+D)

(observed errors in relation to number of expected random errors)

In our case, with B + D = 20 and A+B+C+D = 40, H becomes: 1 - 2 B/(A+B)

If for example the 'hit rate' is 40% and 'false alarm' 20%, H is calculated as follows:

$$A = 8$$
,  $B = 4$ ,  $A + B = 12$ , hence  $H = 1 - 8/12 = .33$ 

The maximum score for H is +1, the theoretical minimum -1. H = 0 means no difference with random answers.

#### Hard core readers

Generally speaking there is not much difference in the reliability of the answers for hard core readers and other readers. It does not matter very much how hard core readers are defined: reading frequency, source of copy, reading intensity, affinity or looking at advertisements.

The most discriminating variables were: `when last read?' and `interest'.

TABLE 3
H (Loevinger coefficient)

`Last read'	All pages	Edit- orial	Adver- tising
Today/yesterday 2-6 days ago 7 days ago More than 7 days ago All	.54 .35 .30 .30	.66 .53 .55 .47	.42 .20 .14 .19 .26
<i>Interest</i> High Middle Low	.26 .42 .38	.57 .60 .49	.14 .20 .33

#### SUMMARY AND CONCLUSIONS

#### (a) Cover recognition

Cover recognition seems to be a reasonable instrument to establish magazine readership, although 14% claimed to have read a future issue. More than 90% of the readers who claim to have read one of the four most recent issues have positive H-coefficients for editorial pages. It is very unlikely, however, that respondents are able to indicate from the cover only which issue they have read last.

## (b) The recency question

The discrepancy in the answers on the main and additional questionnaire is quite large. Only 74% of the respondents who claim to have read *Libelle* last week are consistent in their answer for the specific issue.

## (c) Page recognition

Respondents can recognise editorial pages much better than advertising pages. This is in itself not unexpected, because we know advertisements are generally only superficially viewed. But also for editorial pages recognition is not an easy task.

## (d) Hard core readers

Recognition of advertising pages is not at all suitable for demonstrating the hypothetical difference in advertising exposure between hard core readers and incidental readers. The answers of hard core readers are hardly more reliable.

#### (e) When read last?

Only when an issue is read today or yesterday are the answers for advertising pages reasonably reliable.

## (f) Interest

Recognition of advertising pages is not only a reflection of weak memory traces, which decay quickly, but is also influenced by the interest in the subject. The more people are interested in an advertisement, the less capable they are of recalling whether it was seen before.

Ad recognition is not Cinderella's lost slipper. It is suitable to identify girls, who are willing to marry the prince. But there is no guarantee that it will bring back the girl the prince is desperately longing for.

#### REFERENCES

Clancy, K J, Ostlund; Wijner, L E, GA (1979) 'False reporting of magazine readership' Journal of Advertising Research 19,5

De Groot, A D (1961) Methodologie The Hague: Mouton & Co

Loevinger, Jane (1957) 'Objective tests as instruments of psychological theory' Psychological reports: Monograph supplement 9

Mander, E (1967) 'How good is the editorial - interest method of measuring magazine audiences?' Journal of Advertising Research 7,1

Menneer, Peter (1979) 'Retrospective data in survey research' Journal of the Market Research Society 20,3.