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2.15 A note on replication and recency

Accurate readership research is extremely difficult and beset by potential dangers the fallibility of human memory, the difficulty of accurately quantifying human behaviour, the tendency to exaggerate the readership of 'prestigious' publications, fatigue, boredom - the list is daunting.

If people had perfect and unlimited recall and told the exact truth then a readership research method like 'through-the-book' would in theory work well. The same is not true however for the recent reading technique as currently used. Even if respondents' memories were perfect and they told the exact truth, the recent reading method itself will tend to overestimate the average-issue readership of certain publications. This is because of replication.

Replication occurs when a respondent rereads a publication after the first reading day, and therefore tends to inflate readership as measured by the 'recency' method. However, it has often been said to be 'cancelled out' by parallel readership which is the reading of several issues within the measurement period. I would like to query the assertion that the two problems do in fact 'cancel each other out'.

Let us now introduce the concept of reading frequency. If a respondent reads every issue then neither replication nor parallel readership matter. Infrequent readers can replicate by rereading the occasional issue that they have bought. However, they cannot suffer from parallel readership because that is reading several issues within the measurement period. We should therefore, when analysing recent reading by frequency claims, expect some inflation of the readership among the infrequent readers.

Average readership probabilities by frequency claim for different publication groups are shown in **Tables 1** and **2**.

Note that all the probabilities are below the theoretical level for all groups of publications except monthlies and bi-monthlies. We can see this effect better if we look at the probabilities as a percentage of the theoretical level in each case (**Tables 3** and **4**).

What is happening is that replication is distorting the readership of monthly publications for the irregular readers. Replication, ie repeat reading is if you think about it, likely to occur with (**a**) robust well-constructed magazines that don't fall to pieces; (**b**) publications with a long publishing interval; and (**c**) non-topical publications which are not thrown out as being out of date. Monthly magazines are of course very valuable to the advertiser because of their long life, multiple pick-up and of course, added frequency of exposure. The 'recency' method is measuring a reflection of 'reading occasions' but it is *not* a measure of the average-issue reach.

TABLE 1
Average derived probabilities from frequency claims and 'recent reading'

Frequency claim	4/4	3/4	2/4	1/4	<1/4
Theoretical	1	.75	.5	.25	.125
Publication group					
Sundays (9)	.93	.55	.36	.21	.11
Weekend magazines (3)	.89	.55	.36	.18	.10
General weeklies (18)	.82	.56	.37	.22	.10
Women's weeklies (9)	.83	.51	.36	.23	.10

Source: UK NRS July 1979-June 1980

TABLE 2
Average derived probabilities from frequency claims and 'recent reading'

Frequency claim	6/6	5/6	4/6	3/6	2/6	1/6	<1/6
Theoretical probability	1	.83	.67	.5	.33	.17	.08
Publication group							
Dailies (10)	.90	.66	.49	.31	.18	.11	.05
General monthlies (21)	.86	.78	.70	.58	.47	.34	–
Women's monthlies (28)	.87	.73	.65	.54	.38	.28	–
Bi-monthlies (4)	.90	.77	.72	.66	.52	.41	–

Source: UK NRS July 1979-June 1980

Does it matter in practice? Well, unfortunately a very high proportion of magazine readers in the UK are irregular (see **Table 5**).

If we think that the readership probabilities for irregular readers are unrealistically high, it is interesting to see the effect of reducing all probabilities to at least the

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TABLE 3
Average derived probabilities from frequency claims and 'recent reading'

Frequency claim	4/4	3/4	2/4	1/4	<1/4
Theoretical probability	1	.75	.5	.25	.125
	%	%	%	%	%
Publication group					
Sundays (10)	93	73	72	85	90
Weekend magazines (3)	89	73	71	72	76
General weeklies (18)	82	75	74	90	78
Women's weeklies (9)	83	69	73	93	78

Source: UK NRS July 1979–June 1980

TABLE 4
Average derived probabilities as percentage of theoretical

Frequency claim	6/6	5/6	4/6	3/6	2/6	1/6	<1/6
Theoretical probability	1	.83	.67	.5	.33	.17	.08
	%	%	%	%	%	%	%
Publication group							
Dailies (10)	90	79	73	62	54	66	54
General monthlies (21)	86	94	105	117	141	206	..
Women's monthlies (28)	87	88	97	107	114	169	..
Bi-monthlies (4)	90	92	108	133	157	244	..

Source: UK NRS July 1979–June 1980

theoretical level and then recalculating the readership. If we also accept that replication and parallel readership are less likely to occur among daily newspapers, then it is interesting to see the effect of reducing probabilities for monthly magazines to the mean probability level for the same frequency claim for dailies. I show, therefore, the effect of modifying the probabilities on general monthly and women's monthly magazines in terms of the percentage reduction from the 'recency' readership level in each case. (**Tables 6** & **7**.)

These results are, I think, sufficiently dramatic to speak for themselves, though it may be thought significant that the greatest change (and therefore the

TABLE 5
Percentage of adult non-zero claimers claiming to see half or less of all issues

	%
Daily newspapers	46
Sunday newspapers	31
Weekend magazines	49
General weeklies	60
Women's weeklies	52
General monthlies	67
Women's monthlies	68
Bi-monthlies	67

Source: UK NRS July 1979–June 1980

TABLE 6
Percentage changes in readership resulting from reduction of probabilities

	'Recency' readership %	*'Theoretical' probabilities change* %	*'Dailies' probabilities change* %
Publication			
Knave	1.8	−31.7	−47.2
Club International	1.2	−30.0	−46.7
Fiesta	2.4	−26.3	−42.1
Mayfair	3.8	−22.6	−40.8
Men Only	3.4	−22.6	−40.6
Hot Car	3.4	−22.9	−40.0
Popular Motoring	2.2	−22.7	−40.0
New Homemaker	1.8	−18.3	−40.0
Custom Car	4.9	−22.9	−39.2
Motor Sport	3.0	−20.7	−38.7
Film Review	2.1	−18.1	−38.6
Penthouse	3.1	−20.0	−38.4
Cars & Car Conversions	2.6	−21.5	−38.1
Practical Motorist	3.1	−17.4	−36.1
Car Mechanics	3.1	−18.7	−36.1
Do-it-Yourself	4.7	−12.3	−35.3
Practical Householder	3.1	−11.6	−33.9
Geographical Magazine	1.2	−11.7	−30.8
Illustrated London News	1.3	−10.0	−30.0
Reader's Digest	18.0	−6.7	−19.8
The Scots Magazine	1.2	−2.5	−19.2

Source: UK NRS July 1979–June 1980. All adults

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TABLE 7
Percentage changes in readership resulting from reduction of probabilities

Publication	*'Recency' readership %*	*'Theoretical' probabilities change %*	*'Dailies' probabilities change %*
Brides & Setting up Home	2.3	−34.3	−51.7
Successful Slimming	2.0	−22.0	−40.0
Weight Watchers	2.3	−23.9	−39.6
Slimming	5.2	−19.0	−35.2
Company	2.9	−15.2	−34.5
True Magazine	3.6	−16.4	−33.9
Look Now	2.3	−14.3	−33.9
Ideal Home	7.3	−11.9	−33.0
She	8.2	−12.9	−32.6
Over 21	3.4	−10.9	−32.4
True Romances	6.6	−12.0	−30.5
Annabel	4.6	−12.0	−30.4
Womancraft/ Sewing & Knitting	2.8	−9.6	−30.4
Good Housekeeping	10.7	−10.7	−30.3
Living	7.4	−12.2	−30.3
True Story	5.9	−12.9	−30.3
Honey	3.2	−8.4	−30.3
Vogue	8.7	−6.9	−29.8
Woman's Journal	4.7	−10.6	−29.8
Homes & Gardens	5.9	−8.5	−29.2
19	3.5	−8.9	−29.1
Woman & Home	14.8	−13.0	−28.9
Woman's World	4.7	−10.2	−28.5
Home & Freezer Digest	5.6	−11.4	−28.0
Family Circle	11.2	−9.7	−28.0
Cosmopolitan	7.5	−8.8	−27.3
House & Garden	5.6	−5.7	−25.7
Parents	1.6	−9.4	−25.6
Hers/New Love	1.8	−9.4	−24.4
Pins & Needles	3.2	−4.4	−23.4
Harpers & Queen	2.5	−2.0	−21.6
Mother	1.3	−5.4	−20.8

Source: UK NRS July 1979–June 1980. All women

greatest overestimate of average-issue readership by the recency method?) takes place for the 'skin' magazines. Are those by any chance the sort of magazines that do not get thrown away but are kept for interest and enjoyment indefinitely? In other words, are they likely to suffer from replication?

Among women's magazines we note that the four bi-monthlies have the greatest change, which bears out the hypothesis that the longer the publishing interval the more time there is for replication.

CONCLUSION

There is no logical theoretical reason why the current 'recent reading' method should produce an accurate estimate of average issue readership, because of the replication phenomenon. These notes suggest that there is in practice an unacceptable inconsistency in the UK NRS for the irregular readers of monthly magazines. Is it not time to find an alternative method of measuring average-issue readership?