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THE MEGALAB TRUTH TEST

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The ‘Megalab Truth Test’ was one of the largest ever psychology experiments to be carried out in the U.K. (N=41,471). The study investigated whether the public were best able to detect lying through the newspapers, radio or television. A well known celebrity was interviewed twice. In one interview he consistently told the truth, in the other he consistently lied. Transcripts of these interviews were printed in *The Daily Telegraph* (verbal cues only), broadcast on BBC Radio1 (verbal and vocal cues) and shown on BBC TV (verbal, vocal and visual cues). For each medium the public telephoned in which of the two interviews they thought contained the lies. The results demonstrated that all three groups could detect the lies at above chance levels. More interestingly, radio listeners detected the lies 73.4% of the time, newspaper readers 64.2% and television viewers 51.8%. This supported the prediction that visual cues would reduce individuals’ ability to detect lying.

Results from a new Gallup Poll suggest that lying in everyday life is more widespread than had previously been assumed (1). Only 12% of the Gallup sample claimed that they had never told a lie, whilst 24% claimed to have lied at least once during the previous day. Given that lying is so prevalent it is perhaps worrying that a large body of research has demonstrated that most individuals are unable to reliably detect when others are lying (2).

Additional research has examined why this is the case. Much of this work has concentrated on identifying the cues used by observers to decide whether another individual is telling the truth (3, 4). Such cues fall into three broad categories. Verbal cues consist of just the words used by the liar (including the number of words spoken, length of sentences, etc.). Vocal cues involve the way in which these words are said (voice pitch, pauses, hesitation etc.). Visual cues include any observable signs given off during the communication (eye contact, body movement, facial expressions, etc.). In a typical study individuals are presented with films of liars and

truth-tellers (containing all three types of cue), soundtracks of these films (containing vocal and verbal cues) or just the films' written transcripts (containing only verbal cues). The results have tended to be counterintuitive, with individuals watching the films (and therefore receiving the *largest* number of cues) exhibiting the *lowest* detection rates.

Like most psychological research, these studies have been carried out with relatively small numbers of individuals (mostly University students) in laboratory environments. As a result, their findings may be only applicable to this rather limited set of circumstances. Despite the obvious importance of these results, no previous work had examined whether such findings generalise to a much wider cross section of the population using actual newspapers, radio and television.

This issue was recently resolved in one of the largest ever psychology experiments to be run in the U.K. '*The Megalab Truth Test*' and was carried out to mark the end of National Science Week and involved national television, radio and press (BBC1's Tomorrow's World, BBC Radio One and The Daily Telegraph respectively).

A well known British political commentator (Sir Robin Day) was interviewed twice about his favourite films. In one interview he consistently told the truth, in the other he consistently lied. Transcripts of these interviews were printed in the newspaper, broadcast on the radio and shown on television. For each medium the public were asked to choose which of the two interviews they believed contained the lies and record their decision by telephoning appropriate numbers.

There was a huge response from the public (N=41,471). The radio listeners detected the lies 73.4% of the time, the newspaper readers 64.2% and the television viewers 51.8%. All three groups could detect the lies at above chance levels (see Table 1). Perhaps more interestingly, there were significant differences between the detection rates of the three groups (df=2, Chi-squared=366, $p < 1 \times 10^{-14}$). These differences support the notion that the presence of visual cues reduces individuals' ability to detect deception.

Clearly, the study wasn't perfect. Unfortunately, all of the public's judgements were based on two relatively short interviews with just one person. The original design was to interview several politicians but this had to be abandoned due to the limited amount of broadcast time. Second, it wasn't possible to randomly allocate individuals to the three conditions. Third, one has to assume that the technology used to collect and collate the responses in a short time was accurate and reliable.

These were the prices that had to be paid for running a study using large numbers of people and actual media. However, despite these problems the study produced striking results and it is difficult to conclude that they are not due, at least to some extent, to the effect of the three media.

These results have important implications. Several studies have shown that vocal and verbal cues tend to be more reliable indicators of deceit than visual cues (1). Despite this, observers watching videotapes of potential liars seem to base their decisions on visual cues. This may be because visual cues are more compelling than verbal/vocal ones or because observers falsely believe that such signals (e.g., eye contact) are the best indicator of deceit. Whatever the explanation, it is clear that individuals wishing to detect deceit might be better off consciously paying more attention to verbal or vocal, as opposed to visual, cues.

The Truth Test was designed, in part, to increase public understanding of science. Although not perfect, the experiment illustrated how certain experimental methods (e.g., comparing performance between three conditions, 'blind' judging, etc.) could be used to investigate an interesting and important issue. In addition, the experiment received a large amount of media coverage (5, 6) and generated a large amount of public involvement. Perhaps most important of all, it yielded interesting and useful data. That is assuming, of course, that the public were telling us the truth.

REFERENCES

- (1) *Gallup Poll On Lying*. (1994). Commissioned by The Daily Telegraph, 10-14 March 1994.
- (2) Miller, G. R., & Stiff, J. B. (1993). *Deceptive communication*. London: Sage Publications.
- (3) Maier, N. R., & Thurber, J. (1968). Accuracy judgements of deception when an interview is heard, watched and read. *Personnel Psychology*, 21, 23-30.
- (4) Bauchner, J.E., Brandt, D.R., & Miller, G.R. (1977). The truth/deception attribution: Effects of varying levels of information availability. In B. R. Ruben (Ed.), *Communication yearbook 1* (pp 229-243). New Brunswick, NJ: Transaction Books.
- (5) Highfield, R. (1994). The Truth Test. *The Daily Telegraph*, p. 26, 25 March 1994.

(6) Wiseman, R. (1994). A lesson in the art of deception. *The Daily Telegraph*, p. 24, 30 March 1994.

TABLE

	Newspaper	Radio	Television
No. correct	2207	769	19165
No. incorrect	1231	279	17820
% correct	64.2	73.4	51.8
Chi-squared value (df=1)	277	229	49
p-value	<1x10 ⁻¹⁴	<1x10 ⁻¹⁴	<1x10 ⁻¹⁴

Table 1: Number (in)correct, percentage scores, chi-squared values and p-values for each of the three media. All Chi-squared and p-values calculated by testing actual distributions against a theoretical 50/50 chance distribution.