

# The Essex Study

Written by Phillip Watts.

I like many others consented to being tested for Electro hypersensitivity at Essex University. I am sure that many of you thought it would prove once and for all that our symptoms are real. Instead many of the participants were quite shocked when they announced the results of the study, stating that only **one person got all six tests correct**, I know I was, in fact I did not believe them.

The tests were arranged over three weeks consisting of exposure to UMTS (3G), Sham and GSM, so each of the participants would be exposed to one condition per week. The order of exposure was done under double-blind conditions, except for week one, where everyone was exposed to a quick five minute exposure to all conditions, total fifteen minutes, before the twenty minute exposure to one of the conditions.

I personally got all the twenty minute tests correct, including the correct identification of signal type. However I got one of the five minute tests wrong, therefore five out of six correct.

After some thought I contacted Elaine Fox by e-mail to find out how many had actually got five out of six correct. **Her reply contained the following unpublished data set out below.** I realised immediately that there were major errors in the mathematical analysis. Let me explain: first of all they bundled the 3G and GSM results together. This was incorrect because it does not prove if one type of signal has more of an effect than the other. Secondly they said that because there were three tests, chance would be 33% for the sham results and 66% for the bundled 3G & GSM. This is also incorrect. These tests were carried out over three weeks, therefore chance is 50% regardless of the bundled data.

I asked them to unbundle the 3G and GSM results because I was sure that the 3G would prove to be the most detrimental to the participants. They claimed they could not do that, but given all this data is on a computer spreadsheet it would have been easy to do.

I have reservations about being involved in any future subjective testing, and would not recommend anyone taking part. Unless, it was done by a trusted independent Physicist who understands Electro Hypersensitivity. The Essex team in my opinion did not provide Duty Of Care towards vulnerable people who are already suffering. All participants should have been given time in a shielded room for a least one hour before testing

began so that their nervous systems had time to recover, this would have improved the Sham results.

Clearly the results have been influenced, possibly externally, possibly to obtain further funding for the TETRA tests, I know that they are advertising for Electro Sensitive people to come forward for this. I will leave you to your own conclusions.

**Following document (in black) originated from Elaine Fox on 23<sup>rd</sup> or 24<sup>th</sup> August 2007. It was send by email to Phillip Watts:**

**ON/OFF JUDGEMENTS**

SENSITIVE GROUP (EHS) COMPARED TO NON-SENSITIVE GROUP (CONTROLS)

RAW SCORES

EHS	a (true pos)	c (false pos)	b (false neg)	d (true neg)	SUBJ TOT
T1	21	13	6	4	44
T2	16	7	13	8	44
T3	21	8	11	4	44
T4	22	5	11	6	44
T5	18	9	10	7	44
T6	22	11	6	5	44

<p>a = guessed 'on' when it was 'on'          b = guessed 'off' when it was 'on'          c = guessed 'on' when it was 'off'          d = guessed 'off' when it was 'off'</p>
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<p>T1 = Test1 (open prov)          T2 = Test2 (open prov)          T3 = Test3 (open prov)            T4 = first of double-blind (S2)          T5 = second double-blind (S3)          T6 = third double-blind (S4)</p>
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CONTROL

	a	c	b	d	SUBJ TOT
T1	50	20	30	14	114
T2	31	14	44	25	114
T3	38	20	36	20	114
T4	29	14	45	26	114
T5	32	22	42	18	114
T6	47	18	32	17	114



CALCULATED PERCENTAGES OF INDIVIDUALS WHO GUESSED CORRECTLY  
WHEN THE MAST WAS ON AND WHEN THE MAST WAS OFF

s1

**OPEN PROVOCATION TESTS**

guessed on when on

**58**

guessed off when off

**16**

Each person had 3 tests

**132**

Therefore percent correct

<b>ON</b>	<b>43.939%</b>	chance		66.7%
<b>OFF</b>	<b>12.121%</b>			33.3%

s2-4

**DOUBLE-BLIND TESTS**

guessed on when on

**62**

guessed off when off

**18**

Each person had 3 tests

**132**      both

Therefore percent correct

<b>ON</b>	<b>46.970%</b>	chance		66.7%
<b>OFF</b>	<b>13.636%</b>			33.3%

**CONTROLS**

guessed on when on

**119**

guessed off when off

**59**

Each person had 3 tests

**342**

Therefore percent correct

<b>ON</b>	34.795%	chance		66.7%
<b>OFF</b>	17.251%			33.3%

guessed on when on

**108**

guessed off when off

**61**

Each person had 3 tests

**342**

Therefore percent correct

<b>ON</b>	31.579%	chance		66.7%
<b>OFF</b>	17.836%			33.3%

Table with the maths corrected:

s1

<b>EHS</b>	<b>OPEN PROVOCATION TESTS</b>		
	guessed on when on	<b>58</b>	<b>65.9%</b>
	guessed off when off	<b>16</b>	<b>36.36%</b>
	Each person had 3 tests	<b>132</b>	

	Therefore percent correct			
<b>ON</b>	<b>65.9%</b>	<b>chance</b>	<b>equals</b>	<b>50%</b>
<b>OFF</b>	<b>36.36%</b>			<b>50%</b>

s2-4

	<b>DOUBLE-BLIND TESTS</b>		
	guessed on when on	<b>62</b>	<b>70.45%</b>
	guessed off when off	<b>18</b>	<b>40.90%</b>
	Each person had 3 tests	<b>132</b>	
	both	<b>55.3%</b>	<b>60.6%</b>

	Therefore percent correct			
	<b>70.45%</b>	<b>chance</b>	<b>equals</b>	<b>50%</b>
	<b>13.636%</b>			<b>50%</b>

**CONTROLS**

	guessed on when on	<b>119</b>	<b>52.19%</b>
	guessed off when off	<b>59</b>	<b>51.75%</b>
	Each person had 3 tests	<b>342</b>	

	Therefore percent correct			
<b>ON</b>	<b>52.19%</b>	<b>chance</b>	<b>equals</b>	<b>50%</b>
<b>OFF</b>	<b>51.75%</b>			<b>50%</b>

	guessed on when on	<b>108</b>	<b>47.36%</b>
	guessed off when off	<b>61</b>	<b>53.51%</b>
	Each person had 3 tests	<b>342</b>	

	Therefore percent correct			
	<b>47.36%</b>	<b>chance</b>	<b>equals</b>	<b>50%</b>
	<b>53.51%</b>			<b>50%</b>

(see explanation, next page)

Explanation of the tabled results, **for the sensitive group only**, however the same mathematical analysis apply to the non sensitive group.

The double blind tests were done in sessions two three and four, each test was one week apart, and only 44 participants completed all three tests, so in all there were 132 tests over three weeks,  $44*3=132$ .

To confuse things Essex added the GSM and 3G ON scores together, and the OFF score separately,

So  $44*2=88$  tests for the ON score and 44 for the OFF score, then they said because the scores were two thirds ON and one third OFF, then CHANCE is 66% for ON and 33% for OFF

Now if I take Essex maths for the **On** scores, they worked it out as follows, note they used the total figure of 132 tests when working out the percentages. Not 88 and 44 as they should have done.

So,  $62 \text{ divide by } 132 = 46.97\%$  which is less than chance at 66%

For The **Off** they said,  $18 \text{ divide by } 132 = 13.63\%$  which is less than chance at 33%

Now if we do the maths correctly using Chance as 50% and the correct figures of 88 and 44 for the division.

ON scores ,  $62 \text{ divide by } 88 = 70.45\%$  which is better than chance at 50%

OFF scores  $18 \text{ divide by } 44 = 40.90\%$  which is less than chance at 50%.

The reason the OFF scores are less than chance, is because people who are sensitive should have been allowed some time in a shielded washout area, this would have allowed their nervous system to recover from the journey to the laboratory, before testing began.

Phillip Watts