

Sambo, Emmanuel Ndenor

**Working Paper**

## Socioeconomic inequality and cognitive & physical disabilities among older people in England

HEG Working Paper, No. 15-01

**Provided in Cooperation with:**

Health Economics Group (HEG), University of East Anglia

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## APPENDICES

Appendix a

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[sign out](#) Emmanuel Sambo (MED)

[Find Someone](#) [Options](#)

### RE: Application for ethical clearance

Paula Cole (REN) on behalf of F...

[Actions](#)

To: Emmanuel Sambo (MED)

Cc: FMH Ethics; Susan Steel (REN); Ruth Hancock (MED)

01 September 2014 11:33

Dear Emmanuel,

I have reviewed this and given that there is minimal impact on students etc. I think I can safely deal with it by Chair's action. I am sure that Ruth and you have discussed the Scientific credibility and on the assumption that Ruth as your supervisor is content that this meets the required standard of science I am prepared to approve it from an ethics point of view. Please retain this email as your approval.

Best wishes,

Mark Wilkinson  
Chair  
FMH Ethics Committee

09/09/2014

## **INFORMATION SHEET**

### **Research Project Title: THRESHOLD MEMORY TEST**

You are being invited to take part in a research project. Before you decide whether to take part, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask me if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for reading this.

#### **1. What is the project's purpose?**

This project is aimed at determining the threshold number of words that a typical individual can immediately recall out of ten words.

#### **2. Why have I been chosen?**

You have been chosen because you meet the recruitment criteria- a student of the University of East Anglia.

#### **3. Do I have to take part?**

Taking part in this research is entirely voluntary. If you do decide to take part you will be given this information sheet to keep (and be asked to sign a consent form) and you can still withdraw at any time. You do not have to give a reason.

#### **4. What will happen to me if I take part?**

It is a one off interview that would last no more than five minutes. You would be given a short memory test. 10 random words would be read out to you and you would be required to repeat as many of them as possible immediately. The number you can recall will be recorded. That's all!!!

#### **5. What do I have to do?**

You just to listen and repeat as many words as you can immediately recall

#### **6. What are the possible disadvantages and risks of taking part?**

No foreseeable risks as far as I know

#### **7. What are the possible benefits of taking part?**

Whilst there are no immediate benefits for those people participating in the project, it is hoped that this work will be able to provide a new technique of estimating memory thresholds which can be employed in future studies.

#### **8. Will I be recorded, and how will the recorded media be used?**

You will not be recorded in any way.

#### **9. Will my taking part in this project be kept confidential?**

All the information that we collect about you during the course of the research will be strictly confidential. You will not be able to be identified in any reports or publications.

**10. What will happen to the results of the research project?**

Findings from this study will be used to run further data analysis in my MSc Dissertation, *Socioeconomic Inequalities and Physical & Cognitive disabilities in Older People in England*

**11. Who is organising and funding the research?**

I am funding this research

**12. Who has ethically reviewed the project?**

The University of East Anglia, Faculty of Medicine and Health Sciences, research ethics committee has ethically reviewed and approved this project

**13. Contact for further information**

Emmanuel Sambo  
Norwich Medical School  
University of East Anglia,  
Norwich, UK  
NR4 7TJ  
+44 777 6612 502  
e.sambo@uea.ac.uk

You may take home this information sheet and a signed consent form for your records please.

*Thank you for taking your time to go through this.*

**CONSENT FORM**  
**Memory Test**

*Aim: at eliciting the threshold number of words that a typical individual immediately remembers out of 10 words listed.*

---

I confirm that I, understand information about this study as read out by the investigator, have had the opportunity to ask questions, and understand what I am expected to do as a respondent

\_\_\_\_\_ **(initial here)**

I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason.

\_\_\_\_\_ **(initial here)**

I also understand that all data obtained from me will be kept in an anonymised form (no names etc.) and be used only for the purpose of the research.

\_\_\_\_\_ **(initial here)**

I would like/not like my own results reported back to me.

\_\_\_\_\_ **(delete and initial here)**

\_\_\_\_\_  
*Name of Volunteer*

\_\_\_\_\_  
*Date*

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Researcher*

\_\_\_\_\_  
*Date*

\_\_\_\_\_  
*Signature*

## Appendix b Testing Individual effects of each explanatory variable

### Results from individual logistic regressions for the various indicators of socioeconomic status on Cognitive and Physical disabilities

	<i>Restricted Model</i>		<i>Marital Status</i>		<i>Housing Tenure</i>		<i>Socioeconomic Status</i>		<i>Education</i>		<i>Social Ladder</i>	
<b>Cognitive Disability</b>												
Constant	-5.7369***	(.4726)	-5.5523***	(.4763)	-5.5949***	(.4784)	-6.1222***	(.4781)	-4.5089***	(.4857)	-4.5144***	(.7099)
Gender	.36047***	(.0708)	.4265***	(.0731)	.3714***	(.0710)	.4396***	(.0727)	.5085***	(.0753)	.3836***	(.0715)
Age	.08960***	(.0065)	.0851***	(.0066)	.0868***	(.0066)	.0896***	(.0066)	.0799***	(.0066)	.0888***	(.0065)
			a.3097***	(.1803)	c-.1191	(.1345)	f.3536***	(.0904)	h-.3412***	(.1425)	m -.5805	(.5619)
			b.3204***	(.0820)	d.4681***	(.1122)	g.6764***	(.0841)	i-.2373	(.1983)	n-.0143	(.5467)
					e .2019	(.3241)			j-.7868***	(.1007)	o-1.3057**	(.5453)
									k -.7880***	(.1154)	p-1.3919**	(.5495)
									l-1.206***	(.1129)		
LogL	-2405.0943		-2396.5813		-2394.8763		-2372.3179		-2334.6842		-2383.1906	
<b>Physical Disability</b>												
Constant	-6.1432***	(.0687)	-5.9169***	(.4209)	-6.1958***	(.4273)	-6.4200***	(.4249)	-5.4677***	(.4303)	-4.8959***	(.5503)
Gender	-.3399***	(.0056)	-.2543***	(.0714)	-.3238***	(.0694)	-.3054***	(.0700)	-.2408***	(.0721)	-.3120***	(.0696)
Age	.0748***	(.4176)	.0697***	(.0057)	.0735***	(.0057)	.0754***	(.0057)	.0697***	(.0057)	.0753***	(.0057)
			a -.0802	(.1759)	c.2216	(.1439)	f.1162	(.0927)	h-.3592***	(.1254)	m -.6573	(.3899)
			b.3422***	(.0759)	d.8056***	(.0932)	g.4531***	(.0820)	i-.3214*	(.1634)	n-1.0964***	(.3779)
					e.0234 <sup>.934</sup>	(.2842)			j -.4372***	(.0913)	o-1.4662***	(.3772)
									k-.4768***	(.1086)	p-1.7023***	(.3852)
									l-.9074***	(.1177)		
LogL	-2518.1974		-2507.4034		-2481.1896		-2500.7964		-2483.0283		-2475.8801	
<b>Severe Disability</b>												
Constant	-6.5717***	(.5834)	-6.2689***	(.5889)	-6.3895***	(.1026)	-6.9738***	(.5975)	-5.7760***	(.6035)	-5.4451***	(.7092)
Gender	-.4838***	(.0077)	-.3779***	(.1059)	-.4463***	(.0694)	-.4291***	(.1034)	-.3677***	(.1046)	-.4513***	(.1027)
Age	.06359***	(.0636)	.0569***	(.0079)	.05829**	(.0057)	.0641***	(.0078)	h-.0577***	(.0079)	.0635***	(.0079)
			a -.0694	(.2667)	c.2216	(.1439)	f.2343	(.1415)	i-.5843*	(.1830)	m -.3506	(.4407)
			b.3980***	(.1077)	d.8206***	(.0932)	g.6136***	(.1236)	j -.4847***	(.1217)	n-.9810***	(.4275)
					e.9234 <sup>.934</sup>	(.2842)			k-.7108***	(.1663)	o-1.3417***	(.4274)
									l-1.0154***	(.1867)	p-1.6629***	(.4481)
LogL	-1441.6271		-1434.4292		-1410.8738		-1427.7131		-1418.005		-1412.3194	

Reference Categories: Gender: *Female*; Marital Status: *With Partner* Housing Tenure: *Own it outright* Socioeconomic Status: *Managerial Professional position* Education: *No qualification* Social ladder: *Lowest two Rung*

a. Never married. b. Formerly Married c. Buying with Mortgage d. Rent or shared ownership e. rent free f. Intermediate Occupations g. Routine and manual occupations h. Foreign Other i. CSE j. GCE O/A level k. Higher Education Below Degree level l. Degree or Equivalent m. 3rd or 4th rung n. 5th or 6th rung o. 7th or 8th rung p. highest two rungs

Standard errors in parenthesis \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

## Appendix c

Probability of a house owner 77 year old widowed male with intermediate occupational class with a degree level of education who sees himself on the seventh rung on the social ladder having a b or c

	General Model			Social Ladder Model			Edu & Soc Class Model			Characteristics
	<i>Cognitive</i>	<i>Func</i>	<i>Func 2+</i>	<i>Cognitive</i>	<i>Func</i>	<i>Func 2+</i>	<i>Cognitive</i>	<i>Func</i>	<i>Func 2+</i>	
	Coef	Coef	Coef	Coef	Coef	Coef	Coef	Coef	Coef	
Gender	0.606	-0.196	-0.328	0.44	-0.248	-0.381	0.613	-0.182	-0.308	Male
Age	0.668	0.652	0.485	0.722	0.677	0.51	0.664	0.64	0.47	75-84
Marital	0.282	0.211	0.188	0.276	0.218	0.2	0.293	-0.238	0.222	Widowed
Housing	0	0	0	0	0	0	0	0	0	Own House
Occ Sos Class	0.136	-0.07	0.04	0	0	0	0.143	-0.048	0.066	Intermediate
Education	-1.032	-0.618	-0.577	0	0	0	-1.069	-0.748	-0.728	Degree
Social Ladder	-0.692	-1.075	-0.859	-1.071	-1.202	-1.023				7 th Ladder
constant	1.402	0.035	1.47	1.258	-0.098	-1.529	0.663	-0.911	-2.199	
Sum	1.37	-1.061	0.419	1.625	-0.653	-2.223	1.307	-1.487	-2.477	
Exp	3.9354	0.3461	1.5204	5.0784	0.5205	0.1083	3.6951	0.2260	0.0840	
exp/1+exp	0.7974	0.2571	0.6032	0.8355	0.3423	0.0977	0.7870	0.1844	0.0775	
<b>Probabilities</b>	<b>79.74%</b>	<b>25.71%</b>	<b>60.32%</b>	<b>83.55%</b>	<b>34.23%</b>	<b>9.77%</b>	<b>78.70%</b>	<b>18.44%</b>	<b>7.75%</b>	

## Appendix d

### Cross Tabulation of socioeconomic status and the social ladder

	Managerial and Professional occupations	Intermediate Occupations	Routine and Manual occupations
Lowest 2 rungs	6.45%	22.58%	<b>70.97%</b>
Between 3 <sup>rd</sup> & 4 <sup>th</sup> rung	14.93%	23.28%	<b>61.79%</b>
Between 5 <sup>th</sup> & 6 <sup>th</sup> rung	23.58%	26.02%	<b>50.40%</b>
Between 7 <sup>th</sup> & 8 <sup>th</sup> rung	<b>36.33%</b>	29.08%	34.59%
Highest 2 rungs	<b>51.71%</b>	24.96%	23.31%

### Social Ladder and Education

	No Qualification	Foreign Other	CSE/GCE O/A level	Higher Education below Degree	Degree or equivalent
Lowest 2 rungs	<b>61.28%</b>	3.23%	32.26%	3.23%	0
Between 3 <sup>rd</sup> & 4 <sup>th</sup> rung	<b>51.05%</b>	8.96%	27.16%	7.76%	5.07%
Between 5 <sup>th</sup> & 6 <sup>th</sup> rung	<b>37.40%</b>	11.38%	30.75%	13.97%	6.50%
Between 7 <sup>th</sup> & 8 <sup>th</sup> rung	26.02%	8.73%	<b>30.61%</b>	17.46%	17.18%
Highest 2 rungs	15.40%	5.68%	26.91%	14.94%	<b>37.07%</b>



