APPENDICES

Appendix I - Instructions, Stimulus Sheet and Biographical Sheets

Instructions to Participants

This study is performed as part of my final year project in Psychology.

I am interested in what people can tell about a speaker from their voice alone. For this I require voice recordings of various people that can then be played to another set of participants. In a moment, I am going to ask you to read a set passage. I shall also ask you to describe, in your own words, the physical features of an object I will hand to you.

Lastly, I will ask for some biographical details (such as your age and sex). The confidentiality of such information will be respected and will be presented only in an anonymous, summary form in my report. At the end of the questionnaire, I ask for your name and a contact. This is so I can find you again if I need any further biographical details. You obviously don't have to give me this if you don't want to, but it would assist my research. Again, this information will not be presented or passed on to anyone else, and will be destroyed at the end of the study.

You may withdraw from this study at any time.

After your participation, I will, if you are interested, explain more fully the purpose of my study and exactly what I will be doing with the recordings. A summary of the study's findings will also be availble in due course, either from me, or from my project supervisor.

Andy Wills - 3rd Year Psychology Undergraduate, Southampton University. Tel: 676482

Chris Colbourn - Project Supervisor, Psychology Department, Southampton University.

Recording Your Voice

Part One

When I ask you to, please read to following passage. Speak as naturally as possible - don't make any effort to sound clearer than you would usually. Read at your normal pace, and don't worry if you make any mistakes:

> "I remember everything about the date. As we walked from her house to the new, little theatre in town, we talked about playing the piano. I told her how, when I was younger, they made me learn piano for a while, but after six months I was still playing "Dance of the Daisies" and couldn't stand it any more. You see, I was worried about being a sissy, and to be stuck for weeks playing "Dance of the Daisies" was too much for me, so I quit. I was so sensitive about being a sissy that it even bothered me when my mother sent me to the market to buy some snacks called Peppermint Patties and Toasted Danities."

From R.P.Feynman (1988) "What do you care what other people think?" Unwin Paperbacks

Part Two

Now, when I ask you, please briefly describe the object I hand to you. If you know what it is, please don't just name it, also describe what it looks like. I will stop you after about thirty seconds.

Finally, could you please fill out the questionnaire overleaf. No questions are compulsory, but it would help me if you answered them.

Biographical details

Age: _____   Sex : _____

Do you smoke? If so, approximately how many a day?

Do you have any medical condition that may affect your voice (eg sore throat, laryngitis etc)?

What area of the country would you say you have spent the majority of your life? (eg Wales, Scotland, Greater London, the South East etc etc)

Would you describe your accent as typical of any part of the country? If so, which?

How were you feeling emotionally during the study eg stressed, relaxed, uncertain, confident, upset, ill, well etc?

Is there anything else about yourself you think I might find interesting?

Lastly, if you could provide your full name and some way of contacting you, it would be greatly appreciated. This information will only be used if I need more biographical details and will be destoryed at the end of the study.

....

....

Name:

Contact:

I am/am not (delete as appropriate) willing to provide more biographical details if necessary.

Andy Wills,

98 Mayfield Road,

Swaythling,

Southampton.

SO2 3SX.

19th November 1992

Dear

A few weeks ago, you participated in a 3rd year psychology project by reading a passage and describing an object whilst I recorded your voice. I would like to thank you once again for your help.

These recordings were subsequently played to various people, who said what they could about the person speaking. These listeners produced considerably more information than I had anticipated, and it would greatly help me if I knew to what extent the listeners had been accurate.

You have previously agreed to supply more biographical data if required, and this is what I am now going to ask you to do. I would be grateful if you answered all the questions, but obviously you are under no obligation to. Some of the question may seem a bit strange, but they are based on the most common statements made by the listeners.

When you have filled the questionnaire in, I can either come back to pick it up, or you could put it in the Union pigeonholes under WILLS, or you could put it in the Psychology department pigeonholes under 'W', or you could ring me on 676482 and give me the information over the 'phone. The Psychology pigeonholes are by Lab 1 (next to Charlie Cunningham's office), just off the concourse, on the ground level of the Murray building.

Thanks in anticipation of your help.

Yours sincerely,

A.J.Wills

Biographical Details

Speaker No:

Physical Details

Height (feet and inches):

Weight (stones and pounds):

Hair colour:

Hair length (please circle as appropriate):

Very Short   *Short*   *Bob length*   *Shoulder length*

Longer than shoulder length

Eye colour:

Facial hair (please circle)

    None   *Stubble*   *Moustache*   *Beard*

    Moustache & Beard

Skin colouring (please circle)

    Very fair   *Fair*   *Average*   *Dark/Tanned* *Very dark*

Shoe size:

Job & Education

Job:

Approximate salary (to nearest £1,000)

Educated at (please circle)

Public school   State grammar   State Comprehensive

Highest level of qualifications obtained(eg GCSEs, A levels, degree, etc)

House & Family

Type of house (please circle)

Flat   Terrace   Semi-detached   Detached

Do you own a car?

Marital status (please circle)

Single Engaged   Married   Divorced   Widowed

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Where do you live (please circle)?

In the suburbs   In the centre of a town   In a village

Do you have any children? If so, how many?

Other

Do you wear glasses?

Do you play any sports? If so, what and how often?

How many times a week (approximately) do you go out socially? Who do you go with (family, spouse, friends etc)?

Appendix II - Biographical Details

Speaker	Age	Sex	Height	Hair C	Hair L	Eye C	Area	Earns	Married	Go Out	Out With	Sports	Car
1	62	2	1	1	2	2	1	1.8	1	3	1	2	2
2	27	1	3	4	1	4	7	12	2	4	1	1	2
3	20	1	3	3	1	1	2	2.5	2	2	2	1	2
4	46	2	2	2	1	2	2	5	1	4	2	1	1
5	26	2	2	2	2	2	3	12	2	3	1	1	1
6	45	1	4	4	1	2	2	35	1	2	3	1	1
7	22	2	1	2	3	3	4	2.5	2	4	1	2	2
8	62	1	2	1	1	1	2	28	1	2	3	2	1

All numbers codes refer to the position of characteristic on main study questionnaire

Appendix III - Pilot Response Sheet

Participant Code:

Age: Sex: Height: Weight:

Area:

Intelligence: Attractiveness:

Emotional State:

Job:

Other:

Participant Code:

Age: Sex: Height: Weight:

Area:

Intelligence: Attractiveness:

Emotional State:

Job:

Other:

Appendix IV - Listener Instructions

Instructions to Participants

You will be played six short recordings of someone speaking. After each recording you will be asked to say what you can tell about the speaker from the recording. What images of the speaker did you form? You are encouraged to say as much as you can about any perception of the speaker you might have. The way you respond is entirely up to you, but the list below gives some questions which may help. If possible, give an answer to at least each of these. Anything else you notice will also be welcomed.

Are they male or female?

How old do you think they are?

How tall do you think they are (in feet)?

How heavy do you think they are (in stones)?

Where do they come from? eg Scotland, Ireland, Wales, South West England, South East England, Midlands, North, Other (please specify)

How intelligent do they sound (on a scale of 1-5, 1 being unintelligent)?

How attractive do they sound (on a scale of 1-5, 1 being unattractive)?

Does their voice tell you anything about their emotional state (eg relaxed, stressed etc)?

What sort of job might they do?

What else about them is suggested to you by their voice?

Thankyou for your co-operation

Appendix V - Episode Allocation

	Listener	Structured				Unstructured			
		A	B	C	D	A	B	C	D
S	i	1a	3e	6d	9a	10c	11b	5d	8a
p	ii	1c	4b	6f	9c	11d	3b	5f	8c
e	iii	1e	4d	7a	9e	10e	3d	6a	8e
a	iv	2b	4f	7c	10b	1b	3f	6c	9b
k	v	2d	5a	7e	10d	1d	4a	6e	9d
e	vi	2f	5c	8b	10f	2a	4c	7b	9f
r	vii	3a	5e	8d	11a	2c	4e	7d	10a
	viii	3c	6b	8f	11c	2e	5b	7f	1f

Participant codes. Number in cell is the participant. Letter in cell is the position in sequence of six presentations.

What each listener received:

1	i-s, iv-u, ii-s, v-u, iii-s, viii-f
2	vi-u, iv-s, vii-u, v-s, viii-u, vi-s
3	vii-s, ii-u, viii-s, iii-u, i-s, iv-u
4	v-u, ii-s, vi-u, iii-s, vii-u, iv-s
5	v-s, viii-u, vi-s, i-u, vii-s, ii-u
6	iii-u, viii-s, iv-u, i-s, v-u, ii-s
7	iii-s, vi-u, iv-s, vii-u, v-s, viii-u
8	i-u, vi-s, ii-u, vii-s, iii-u, viii-s
9	i-s, iv-u, ii-s, v-u, iii-s, vi-u
10	vii-u, iv-s, i-u, v-s, ii-u, vi-s
11	vii-s, i-u, viii-s, ii-u

Appendix VI -   Raw Results For Initial Study

Person :1

Age: 22   **Sex:** F   **Smoke:** No   **Medical:** Cold
Area of country: Wales
Described accent: Strong South Wales
Emotionally: Stressed
Other:

Structured

1a / 3e / 6d / 9a

Unstructured

10c / 11b / 5d / 8a

Age: 18/27/55/16
             28/20/22/20

Sex: F/F/F/F
             F/F/F/F

Height: 5'6"/5'4"/5'5"/5'2"
                    Slight below av./5'10"/5'2"/5'4"

Weight: Quite heavy for height/Slightly Overweight/Overweight/Petite
                    Large frame but not overweight/Little Overweight/8st/Av

Area: Welsh/Ireland/Ireland moved to home counties/Wales
                    Liverpool/Merseyside but of Irish extraction/Welsh/Midlands

Intelligence: 2/3/3/3
                    4/3/4/3

Attractiveness: 2/4/4/3
                        4/4/4/4

Emotional State: No info/Slightly tense/Relaxed/Bit nervous
                           Slightly nervous/Nervous/Very nervous/Stable

Job:
School or student/Receptionist or that level Works with people/Lower end of secretary/ School - going on to college
Mature Student/Student/Student or secretary/Student

Other:
Black hair/Light coloured hair/-/Blond hair. Bob length
Dark hair/Brown hair-Straight/Blond, short hair/Brown hair

-/-/-/Quite well dressed. Thinks about her appearance.
Dresses to suit the occasion/Casual smart look/White chunky sweaters/Casual clothes

-/-/-/-
Slightly flirtatious/Quite attracted to interviewer/-/-

-/Socialble-likes socialising/-/-
Lively personality/-/-/-

-/Has had a few problems in her life/Happy/Happy life
-/-/-/-

-/-/Married with grown up kids/-
Could be living with someone. Not married. No children./-/Not married/Not married

-/White/-/-**-/-/-/-
-/-/Chubby/-**-/-/-/-
-/-/-/-**Slightly reddish complexion/-/-/-
-/-/-/-**-/Deep voice/-/-
-/-/-/-**-/Deep eyed/-/-
-/-/-/-**Reasonably well educated/-/-/-
-/-/-/-**Possibly artistic/-/-/-
-/Religous out of guilt rather than faith. CATHOLIC./-/-**-/-/-/-
-/Emotional arguer/-/-**-/-/-/-
-/Can be stubborn/-/-**-/-/-/-
-/-/-/-**-/Not done this sort of thing before/-/-
-/-/-/-**-/-/-/Normal background
-/-/-/-**-/-/-/'Run of the mill' student

Person : 2

Age: 62   Sex: M   Smoke: No   Medical: Cold
Area of country: 1st half Lancs 2nd half South
Described accent: No particular accent
Emotionally: Relaxed
Other:

Structured

1c / 4b / 6f / 9e

Unstructured

11d / 3b / 5f / 8c

Age: 40/50/58/32
           42/40/38/47

Sex: M/M/M/M
           M/M/M/M

Height: 5'8"/6'/6'/6'3"
                    5'9"/6'/6'1"/5'9"

Weight: 14st/13st/Slightly overweight/Quite slim
                    Slightly overweight/slim/Av/Overweight

Area: North England/Midlands/South/North
                    Home counties/Home counties/Home counties/South

Intelligence: 3/4/5/4
                          5/4/4.5/5

Attractiveness: 2/3/3/3
                          ?/4/4/3

Emotional State: Not totally relaxed/Relaxed/Relaxed and Confident/Quite
           relaxed, at ease.
                          Very confident, assured, calm/?/Relaexed and
           confident/Confident

Job: ?/Self-employed/Professional classes. Speaking - sales or lecturing/Teacher
           Education or delegating managing director/Lecturer, White collar worker,   High up
manager/Lecturer/Doctor, surveyor, accountant, professional

Other:

-/Lives further north than he sounds/Came to south from somewhere else/-
Ancestry from west country

-/Dresses quite well/-/Well dressed
Pin stripe suits. Cordorouys and slippers at home/-/Fairly smart but not a suit/Smart suit

-/-/-/-
Short dark hair. Possibly not grey/-/Dark hair, receding/Grey hair

-/-/-/-
Scholarly/Used to giving seminars and speeches/Well educated/-

-/-/Quite wealthy/-
-/-/Quite rich/Quite well off

-/-/Semi and nice car/-
-/-/-/Drives a nice car. Nice house

-/-/Comfortable in life/Quite happy
-/-/-/-

-/-/Married/Married
Family man/-/-/Married

-/-/Kids/No children
2or3 youngest about 14, oldest about 25/-/-/3children

-/-/A golfer/-
-/Sport once a week/Goes jogging now and again/-

-/-/-/Happy, jolly looking man
Nice bloke/-/Nice man/-

-/Bit like Michael Hesletine/-/-
"It's Michael Hesletine"/-/-/-

-/-/-/-
"r" problems/problems with 'r' and 'w'/-/-

-/-/-/-**-/-/-/Likes to dominate. In charge
-/-/-/-**-/-/-/Knows what he's talking asbout
-/-/-/-**Smokes, or used to/-/-/-
-/-/-/-**Analytical, lateral thinking/-/-/-
-/-/-/-**Deep voice/-/-/-
-/-/Commuter/-**-/-/-/-
-/-/-/-**Fatherish/-/-/-
-/-/-/Thin face**-/-/-/-
-/-/-/-**-/-/Eats properly/-
-/-/-/-**-/Artistic and or 'culture vulture'/-/-
-/-/-/-**-/Reassuring voice/-/-
-/-/-/-**-/White/-/-
-/-/-/-**-/Clean shaven/-/-
-/-/-/-**-/Doesn't smoke/-/-
-/-/-/-**Boardroom manner/-/-/-
-/-/-/-**Fair skin/-/-/-
-/-/-/-**-/-/-/Glasses
-/-/-/-**-/-/High forehead/-

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Person :3

Age: 26   Sex: F   Smoke: No   Medical: No
Area of country: Midlands - Warickshire
Described accent: None
Emotionally: Relaxed
Other: Moved around a lot

Structured

1e / 4d / 7a / 9e

Unstructured

10e / 3d / 6a / 8e

Age: 25/20/22/18
                @/22/35/22

Sex: F/F/F/F
                @/F/F/F

Height: 5'7"/5'8"/5'6"/5'6"
                @/5'10"/5'10"/5'9"

Weight: Av/Slim/Av/Slim
                @/Av/Av/Normal

Area: South/Oxford Region/Home Counties/South
                @/Home counties/Home counties/Home counties

Intelligence: 4/3/4/4
                        @/5/4/4

Attractiveness: 3/4/3/3
                        @/4/4/3

Emotional State: ?/Relaxed/Slight tenseness/Sure of herself
                        @/?/Relaxed/Quite confident

Job: Teacher/Student/Student/Student
                @/Engineering to accountancy student/Secretary or receptionist/Student

Other:

-/Long, dark hair/Brown, shoulder length hair/Blond, straight, shoulder length
@/Middle of back length mousy blond hair/-/Dark, straight (or slightly curly) hair

-/-/Fluent in English/-
@/-/-/Very good with English

-/Not married but boyfriend/-/-
@/-/Married, kids and mortgage/Single

-/-/White/-
@/White/-/-

-/-/Nice person/-
@/Caring person/-/-

-/-/-/
@/Has had a fair bit of training/-/Good education

-/-/-/Wears glasses for reading and looking intelligent
@/Doesn't wear glasses

-/-/-/Diligent
@/-/-/Works hard

-/-/-/-**@/Observant/-/-
-/-/-/-**@/Logical/-/-
-/-/-/-**@/-/-/No makeup
-/-/-/-**@/-/-/Public school education
-/-/-/-**@/-/-/Likes to be in charge
-/-/Lives in suburbs or suburban village/-**-/-/-/-
-/-/-/-**@/Social smoker and drinker/-/-
-/-/-/She thinks she's wonderful and attractive**-/-/-/-
-/-/-/-**@/Possibly religous/-/-
-/-/-/-**@/-/-/Goes out and enjoys herself
-/-/-/-**@/-/-/Wears jeans
-/-/-/-**@/Aware of environmental issues

Person : 4

Age:45   Sex: M   Smoke:No   Medical: No
Area of country: South of England
Described accent: Southern
Emotionally: Relaxed
Other: No

Structured

2b / 4f / 7c / 10b

Unstructured

1b / 3f / 6c / 9b

Age: 24/22/42/35
            35/40/23/36

Sex: M/M/M/M
            M/M/M/M

Height: 5'10"/6'2"/6'/Av. for a man
                   6'/5'11"/6'2"/5'8"

Weight: Slightly plump/13.5st/Av./Thin
                   12st/Av./Slightly overweight/Quite big and plump

Area: Devon or Dorset/Oxford/South but NOT S.W./South
             South East/Cambridge/West Midlands/South East

Intelligence: 3/3/3.5/4
                         5/4/4/3

Attractiveness: 4/4/3/3
                           4/3/3/?

Emotional State: Relaxed/Quite nervous/Relaxed/Reasonably relaxed
                             Very relaxed/Relaxed/Slightly nervous/Slightly nervous

Job: Psychologist/Bar man/Banking or teaching/Teacher
            Office worker/Quite high level job/Student/High level engineer - Managment

Other:

Well-spoken/-/Clear voice/-
-/-/-/-

-/-/Nice bloke/Friendly
-/Friendly and warm hearted/Happy/-

Lives in village or small town/-/Lives in the suburbs/-
-/-/-/-

-/-/White/-
-/White/-/-

Smart (or smart casual) dress/Nice clothes (trousers and sports jacket)/Neat appearance - smart even when casual/Careful about appearance - suit or smart casuals
-/-/-/Smartly dressed

-/Dark hair/-/Partially bald
-/Short hair, well kept/-/Balding

-/-/One or two children/-
-/-/Grown-up kids/-/Young children aged 5 & 7

-/Likes team sport/-/-
-/Not a sporty person/Sporty

-/No glasses/-/-
-/-/Glasses

-/Girlfriend/Married/Not necessarily married
-/Possibly married/Married/Happily married

-/-/-/-**-/Witty/-/-
-/-/-/Well educated**-/-/-/-
-/-/Used to speaking/-**-/-/-/-
-/-/-/-**-/Possibly a pipe/-/-
-/-/-/-**-/Travelled/-/-
-/-/-/-**-/-/-/Thoughtful
-/-/Average stable man/-**-/-/-/-
Creative/-/-/-**-/-/-/-
-/-/Job is indoors/-**-/-/-/-
Into acting or literature/-/-/-**-/-/-/-
-/-/Nice saloon car/-**-/-/-/-
-/-/Not a smooth looking person/-**-/-/-/-
-/-/-/-**-/Homely/-
-/-/-/Possibly moustache**-/-/-/-
-/-/-/Fair skin, fair colouring**-/-/-/-
-/-/-/Used to issuing instructions. Position of authority**-/-/-/-
-/Socialises with 'the lads'/-/-**-/-/-/-

Person : 5

Age: 46   Sex: F   Smoke: No   **Medical:** No
Area of country: South
Described accent: London/ Isle of Wight
Emotionally: Relaxed
Other: I am an interesting person

Structured

2d / 5a / 7e / 10d

Unstructured

1d / 4a / 6e / 9d

Age: 24/35/27/45
           30/38/32/30

Sex: F/F/F/F
           F/F/F/F

Height: 5'9"/Tall for a woman/5'5"/5'5"
                  6'/5'8"/5'10"/5'3"

Weight: Slightly hevty/Slim/Av. Not overweight but could look it/Not overwight but could
look it/Thin

                  Slightly underweight/Slightly over average/Slim/Average

Area: Outer London but not East End/Home counties/More north/South
             South/South East/Northern/South West

Intelligence: 3/4/3.75/3
                     3/3/3/2

Attractiveness: 4/3/3/3
                          4/4/3/4

Emotional State: Relaxed/Realxed and happy/Calm/Relaxed
                          Relaxed/Very relaxed/-/Bit stressed

Job: Well paid 15-17k/High-powered business/Secretarial or housewife/Secretary
            Office worker, secretary/Teacher/Primary school teacher/Typical housewife

Other:

Blond, shoulder length, slightly wavy, hair/Dark hair/-/Mousy hair
Blond/Dark haired/Light, long hair/Dark, curly hair

-/Not married/Single/Probably married
Married/Married/Married/-

-/-/-/Probably got children
One or more children/Children/No children/-

Middle class/-/-/-
-/Reasonably well off/Lives in a semi, average car/-

-/-/Goes to nightclubs. Out with the girls/Not life and soul of party - doesn't go out much
-/-/-/-

-/White top/-/Drab clothes
-/Dresses well/Skirts rather than trousers/-

-/-/-/-**-/Dark eyed/-/-
-/-/-/-**-/-/-/Got a few problems
-/Well educated/-/-**-/-/-/-
-/-/Not very exciting to look at/-**-/-/-/-
-/Fairly happy life/-/-**-/-/-/-
-/Nice parents/-/-**-/-/-/-
-/-/-/Eager to please**-/-/-/-
-/-/-/-**-/-/Glasses for reading/-
-/-/-/Conscientious**-/-/-/-
-/-/-/-**-/Drives to work/-/-
-/-/-/Not intellectual**-/-/-/-
-/-/-/Unimaginative**-/-/-/-
-/-/-/Excellent employee**-/-/-/-
-/Has a brother/-/-**-/-/-/-
-/Fairly open mind/-/-**-/-/-/-
Make-up wearer (but not a lot)/-/-/-**-/-/-/-
-/-/-/-**-/-/Arty
-/-/-/-**-/-/Into reading/-
Big feet (size 7 or 8)/-/-/-**-/-/-/-

Person : 6

Age: 27   Sex: M   Smoke: 8-10   Medical: No
Area of country: Spain, Basque country
Described accent: North Spain
Emotionally: Relaxed
Other:

Structured

11e / 5c / 8b / 10f

Unstructured

2a / 4c / 7b / 9f

Age: 40/46/27/50
               24/25/22/40

Sex: M/M/M/M
           M/M/M/M

Height: 5'6"/5'3"/6'2"/Small
                   5'10"/5'9"/5'9"/6'1"

Weight: Thin/Chubby around face/Well-built, muscular/Av. but beer belly
                Slightly overweight/11.5st - slightly plump/Heavilt built but not overweight/Big
bloke, bit overweight - middle aged spread

Area: Italy/Indian/Foreign/Irish or East European
               West Indian or German/Indian/The Med/German

Intelligence: 4/3/2/3
                  4/4/4/2

Attractiveness: 3/2/4/3
                     3/4/3/1

Emotional State: Very confident/Relaxed/Stable/-
                     Realxed/Slightly nervous, unsure/Calm/Slightly stressed

Job: Visiting on business for Italian company/Mundane city man/Skilled labour/Anything from road worker to university lecturer.
Student, pHD/Student/Art student/Skilled manual

Other:
-/-/Does something not involving reading out/Possibly not used to being asked to read things aloud
-/-/-/-

Dark hair, Slightly balding, short hair, slightly curly/-/Short, dark hair/-
-/-/Short, darkish hair/-

-/Suit/Smart casuals, fairly scruffy/-
-/Colourful clothes, possibly a tie, but not very smart/-/Big, baggy jumpers. Casual dresser

-/-/Dark skin/Fair colouring
-/-/Slightly tanned skin/-

Moustached/-/-/-
-/-/-/Beard

Single/Married/Not married/Been married, but not necessarily still
Not married, possibly engaged/Single, not a girlfriend/Unmarried/Single

-/-/-/Not a family man
No children/-/-/-

Good mannered/-/-/-**-/-/-/-
Competent/-/-/-**-/-/-/-
Possibly English mother/-/-/-**-/-/-/-
-/-/-/-**-/-/-Few worries, not that happy.
-/-/-/Slightly irritating personality**-/-/-/-
Had a course in English/-/-/-**-/-/-/-
Good English speaker/-/-/-**-/-/-/-
-/-/-/-**Middle class/-/-/-
-/-/-/-**-/-/-/Quite hairy
-/-/-/Indeterminate age**-/-/-/-
-/-/-/-**-/Wears glasses/-/-
-/-/Sporty/-**-/-/-/-
-/-/-/Likes his booze**-/-/-/-
-/-/-/Probably smokes - fairly heavily**-/-/-/-
-/-/-/-**-/-/Number of brothers and sisters/-
Ordinary bloke/-/-/-**-/-/-/-
-/Reasonably respectable/-/-**-/-/-/-

Person :7

Age: 62   **Sex:** F   **Smoke:** No   **Medical:** No
Area of country: Dorset
Described accent: Dorset
Emotionally: Well
Other: No

Structured
3a / 5e / 8d / 11a

Unstructured

2c / 4e / 7d / 10a

Age: 52/50/43/65
        43/57/40/50

Sex: F/F/F/F
        F/F/F/F

Height: 5'6"/5'8"/Av. for a woman/5'8"
              5'6"/5'3"/5'5"/5'5"

Weight: About right for age and height/Slim/Slightly over average/Av.
              Thin build/Quite plump/Av/Slightly plump

Area: Dorset/South Hampshire/South West/South coast
              Lincolnshire/London area/South/

Intelligence: 3/2/3/3
                  3/2.5/3/3

Attractiveness: 3/2/3/3
                      2/Voice: 5 appearance:3/3/-

Emotional State: Slightly tense/Confused/Quite nervous/Attentive
                      Realxed/Bit nervous/Uncertain but relaxed/Reasonably relaxed

Job: Woman on Tannoy, cafeteria staff/Tannoy woman, dinner lady/Housewife or secretary/Retired
- was nurse, ward sister or teacher
              Secretarial staff/School dinner lady/Secretary or librarian/Shop assistant or floor manager

Other:
-/Grey hair/Short, brown hair/Greying hair
Brown to grey hair/Permed grey hair but not blue rinsed. Was blond/Dyed blond hair, possibly good perm.

-/-/Wearing skirt and blouse/-
Not well dressed but not scruffy. Downdy colours/Old but nice floral dresses/Neat looking/Well turned out, reasonably smart

-/-/Homely looking/Homely
-/-/-/-

-/-/-/Educated quite well
Not academic but not stupid/-/Not that many qualifications, but some/-

-/-/-/Sounds like an aunt
Sounds like a grandma/

Married or divorced/Married/Married
Married/Husband dead/Married/Married

Couple of kids/Quite motherly/Grown up kids
Kids/-/Child or two/Probably children

-/Doesn't slouch
-/Strict
-/New to the situation
-/-/-/-**-/Glasses with strings
-/-/-/-**-/-/Lives in suburbia
-/-/-/-**-/-/-/Good natured
-/-/-/-**-/-/-/Easy going
-/-/-/-**-/-/-/Not very defined social class
-/-/Obsessed about her weight
-/-/-/-**-/-/White/-
-/-/Quite well off family/-**-/-/-/-
-/-/-/-**Sharp features
-/-/-/Difficulty in reading passage
-/-/-/-**-/Blue eyes
-/-/-/Competent**-/-/-
Possibly smoker/-/-/-**-/-/-
-/-/-/-**Not an interesting person/-/-/-
-/-/-/-**May have work stress but wont flap/-/-/-

Person :8

Age: 20   Sex: M   Smoke: No   **Medical:** Sore throat, blocked nose
Area of country: South
Described accent: South
Emotionally: Slightly stressed
Other:

Structured
3c / 6b / 8f / 11e

Unstructured
2e / 5b / 7f / 1f

Age: 20/25/20/27
          20/28/19 or 38/20

Sex: M/M/M/M
         M/M/M/M

Height: 5'11"/5'8"/6'1"/5'7"
              5'10"/5'7"/5'8"/Av.

Weight: Av./Overweight/Quite chubby/Slim
             Fairly slim/Av./Slightly above average/Av.

Area: Norwich, Cambridge/London/South/West London or home counties
           North, Newcastle/North London/Midlands/London

Intelligence: 4/3/2/5
                 4/3/3.75/3

Attractiveness: 4/3/2/3
                4/-/2.5/2

Emotional State: No major worries/Relaxed/Neither confident nor unconfident/Attempting to show off
Relaxed/Nervous/Relaxed/Neither stressed nor relaxed

Job: Student/Banker, clerical/Car mechanic, skilled labour/VIth former
Student (science or computers)/Works in shop/Student/Student

Other:
Athletic/Plays golf on a Sunday/-/-
-/-/-/-

Socialble, likes drinking/Out with the lads when away from home/-/-
-/-/-/-

Slightly apprehensive of microphone/-/-/-
Unsure of task/-/Lack of interest in task/-

Clean shaven./-/-/-
-/-/Clean shaven/-

Not long hair/-/Short, light brown hair/Short hair

-/Dark hair/Short hair, possibly receding/Black hair

-/Wealthy/-/Reasonably rich family
-/-/Likes driving round in his car

-/-/Jeans, T-shirt and trainers/Smart, conservative dresser - Jeans and rugby shirt
-/Wearing a suit/Casual, not a tie, jazzy jumper sometimes

-/-/Ordinary/-
-/-/Average bloke/-

-/Grammar school education/Ordinary state school/-/-
-/-/-/-

Not married/Single/Single with fiance/-
-/-/Single, girlfriend somewhere/-

-/Yuppie/-/-**-/-/-/-
-/Lives at home with parents/-/-**-/-/-/-
-/-/-/Mummy's boy at home**-/-/-/-
-/-/-/-**Well-spoken/-/-/-
-/-/-/-**Easy going/-/-/-
-/-/-/-**Nice personality/-/-/-
-/-/-/-**Trustworthy/-/-/-
-/-/-/-**-/Introverted looking/-/-
Possibly English Black/-/-/-**-/-/-/-
-/-/-/-**-/-/Relaxed attitude
-/-/-/-**-/Works in antiques
-/-/-/Conservative**-/-/-

Appendix VII(a) - Number of Judgements Summary

	1	2	3	4	5	6	7	8
Set Passage								
Pre-Set	40	39	39	40	40	39	40	40
Created	14	17	11	31	25	25	22	24
Free Descr								
Pre-Set	40	38	**	39	40	40	38	40
Created	22	40	**	18	20	15	28	18

Appendix VIII - Most Common Judgements Summary

Judgement Mean	1	2	3	4	5	6	7	8	Tot	
Marital/Parental	4	4	3	6	6	8	8	4	43	5.4
Hair Details	7	3	5	4	7	3	7	3	40	5
Dress	5	5	1	5	4	4	5	3	32	4
Personality	4	6	4	2	1	3	2	6	28	3.5
Education	6	2	4	2	2	0	3	5	24	3
Sport	0	3	0	3	0	1	0	2	9	1.1
Eyesight		0	1	2	0	1	1	1	0	6
.75										
Accom.	0	1	1	2	1	0	1	0	6	.75
Of Possible	8	8	7	8	8	8	8	8	63	

Appendix IX -   Example Booklet

What's In a Voice?

In a moment you will hear a series of recordings of people's voices. Each person is reading the same passage from a printed sheet. I would like you to listen carefully to the first voice and then answer some questions concerning your impressions of the person speaking. Some of the questions may seem rather odd. Please do not worry about this. I am interested in your *impressions* , so please answer all the questions, even if you are not sure of the accuracy of your responses. For some of the questions you will also be asked to rate how confident you are that your response is correct. You will only have a short time to answer these questions.

Eight voices will be played in turn, and a similar procedure will be followed for each voice. After all have been played, I would like you to answer some further questions which are on the last page of this booklet.

All you responses will be treated in the strictest **confidence** and will not be presented to anyone else expect **in an** anonymous form.

PLEASE TURN OVER WHEN YOU ARE INSTRUCTED TO DO SO.

What's In A Voice? Ecological Analsis of Non-Verbal Speech Information

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PLEASE LISTEN CAREFULLY TO THE RECORDING AND THEN RESPOND.

How *OLD (IN YEARS)* is the person you have just heard? _____ years
How confident are you of the above answer (please circle)

Not at all confident   1   2   3   4   5   Very Confident

Is the person you have just heard *MALE OR FEMALE* (please circle) MALE / FEMALE
How confident are you of the above answer (please circle)

Not at all confident   1   2   3   4   5   Very Confident

How *TALL* is the person you have just heard (please circle)?

Less than 5'6"   5'6"-5'8"   5'9"-5'11"   6' or over

What *COLOUR HAIR* do you think the person has(please circle one)?

Greying or Grey   Fair or Blond   Mousy   Brown

How could you best describe the person's *HAIR LENGTH* (please circle one)?

Short   Medium   Long

How could you best describe the person's *EYE COLOUR* (please circle one)?

Blue-grey   Blue   Green   Brown

How much do you think this person *EARNS* a year (in pounds)? _____ pounds
How confident are you of the above answer (please circle)

Not at all confident   1   2   3   4   5   Very Confident

Do you think they *OWN A CAR* (please circle)?   YES / NO

Do you think they are they currently *MARRIED* (please circle)? YES / NO
How confident are you of the above answer (please circle)

Not at all confident   1   2   3   4   5   Very Confident

Which *AREA OF THE COUNTRY* are they most likely to come from (please circle one)?

South-West   South   Midlands   Wales   North   Scotland
Abroad

Do you think they are likely to *PLAY SPORTS* (please circle)?

   YES / NO

Roughly how many *TIMES A WEEK* do they *GO OUT SOCIALLY* (please circle one)?

| Less than once three times | Once | Twice | Three times | More than |

When they do go out, who do they typically *GO OUT WITH* (please circle one)?

| Mainly friends | Friends and family equally | Mainly family/spouse |

PLEASE TURN OVER AS SOON AS YOU HAVE ANSWERED ALL THE QUESTIONS

What's In A Voice? Ecological Analsis of Non-Verbal Speech Information

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PLEASE NOW ANSWER THE FOLLOWING QUESTIONS.

Evaluation

Did you have any clear images of the people you listened to?

How did you approach the task of answering the questions?

How difficult, overall, did you find it to answer the AGE,SEX and AREA OF THE COUNTRY questions (please circle one)?

Not at all difficult 1　　2　　3　　4　　5　　Very difficult

Comments:

How difficult, overall, did you find it to answer the other questions (please circle one)?

Not at all difficult　　　　1　　2　　3　　4　　5　　　　Very difficult

Comments:

PLEASE TURN THE PAGE.

What's In A Voice? Ecological Analsis of Non-Verbal Speech Information

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BIOGRAPHICAL INFORMATION

How old are you? _____ years

Are you male or female?   MALE / FEMALE

Which area of the country below best describes where you come from (please tick one)?

South-West
South
Midlands
Wales
North
Scotland
Not from this country

THANK YOU FOR YOUR PARTICIPATION. THE EXPERIMENT IS NOW AT AN END. PLEASE FEEL FREE TO ASK ANY QUESTIONS THAT YOU MAY WANT TO.

[PAGE 2 OCCURS 8 TIMES IN REAL BOOKLET, and fits on to one page - binding margins necessitated a slight change]

Appendix X - Main variables and their range

1) **Age**   Mean 38.75 yrs Range 20-62 yrs
2) **Sex**   4 male 4 female
3) **Height**   Mean 5'7" Range 5'4"-6'1"
4) **Shoe** Size   5.5 6.5 7 7.5 9 9 ?
5) **Weight**   Mean 10.7stone Range 10.2 -11.5
6) **Hair** Colour   Fair 1 Blond 2 Mousy 1 Brown 2 Greying 2
7) **Hair** Length   Short 3 Bob 4 Longer than shoulder 1
8) **Eye** Colour   Green 1 Blue-grey 2 Blue 4 Brown 1
9) **Facial** Hair   None 7 Moustache & Beard 1
10) **Skin** Colour   V.Fair 2 Fair 3 Average 3
11) **Job**   Student 3 Lecturer/Prof/Tutor 3 Teacher/ 1 Cleaner 1
12) **Education**   Comprehensive 4 Grammar 2 Private 2
13) **Highest** Qual   None 1 A levels 3 PGCE 1 Msc 1 Ph.D 2
14) **Salary**   Mean 9.4k Range 2.5-35k
15) **House** type   Flat 2 Terrace 1 Semi 2 Detached 3
16) **Car** ownership   Yes 50%
17) **Marital** Status   Single 4 Married 4
18) **Children**   None 4 Some 4 (Two 1 Three 2 Four 1)
19) **Smokers**   No 7 Sometimes 1
20) **Area** of country   Wales 1 Midlands 1 South 3 Dorset 1 North & South 1 Spain 1
21) **Typical** accent   Welsh 1 None 2 South 2 Dorset 1 London 1 Spanish 1
22) **Emotional** state   Relaxed/well 6 Slightly stressed 1 Stressed 1
23) **Wears** glasses   Yes 6
24) **Sports** player   Aerobics/Yoga 1 No 3 Jogging/Swimming 1 Tennis,Ski,Squash,Aerobics 1
Sailing   1 Swimming/Orienteering 1
25) **Social** outing frequency(per week)   One 2 Two 3 Three 3
26) **Typical** form of social outing   Friends 4 Spouse/family 2 Both 2
27) **Typical** dress   Casual 4 Smart Casual 4
28) **Attractiveness**   Not asked in questionnaire
29) **Intelligence**

What's In A Voice? Ecological Analsis of Non-Verbal Speech Information

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Appendix XI - Raw Results of Follow-Up Test

Speaker	Listener	Age R	Sex	Height R	HairC R	Hair L R	EyeC R	Area R	Earn R	Married R	Go Out R	Out With R	Sports R	Car R
1	1	60	2	1	1	2	4	3 •		1	2	3	2	1
1	2	50	2	1	1	2	1	2	10	2	3	2	2	2
1	3	70	2	2	1	1	4	3	1	2	2	1	2	2
1	4	45	2	1	4	2	4	2	20	1	3	1	2	2
1	5	65	2	1	2	1	2	3	12	2	2	3	2	1
1	6	55	2	1	1	1	1	2	3	1	2	3	2	2
1	7	60	2	2	1	1	1	1	0	2	1	2	2	2
1	8	50	2	1	1	1	1	1	10	2	2	1	2	1
1	9	45	2	1	4	1	4	2	20	2	3	2	2	1
1	10	65	2	2	1	1	1	2	15	1	4	2	2	1
1	11	45	2	2	1	2	2	2	15	2	3	1	1	2
1	12	40	2	2	4	2	2	3	8	1	2	3	2	2
1	13	60	2	1	1	1	2 •		0	1	1	3	1	2
1	14	50	2	1	1	1	1	1	4	1	4	2	2	2
1	15	58	2	2	1	1	4	2	8	1	4	2	1	1
1	16	55	2	2	2	1	1	1	1	1	3	2	2	2
1	17	65	2	1	1	2	2	3	3	1	3	3	2	2
1	18	55	2	1	1	2	1	2	0	1	2	3	2	2
1	19	58	2	2	1	1	1	3	4	1	2	2	2	2
1	20	65	2	1	1	1	1 •		3	2	2	2	2	1
1	21	52	2	2	1	1	2	2	0	1	4	1	1	1
1	22	80	2	1	1	1	3	2	5	2	3	2	2	2
1	23	53	2	1	1	1	1	1	10	2	2	3	2	1
1	24	60	2	1	1	1	3	2	3	2	3	3	2	2
1	25	60	2	2	3	1	1	2	7	1	2	3	2	1
1	26	45	2	2	4	1	2	3	20	1	2	2	1	2
1	27	55	2	1	1	2	4	3	0	1	3	3	2	2

Numbers refer to position on questionnire response sheet

Pos	a	b	c	d	e	f	g	h	i	j	k	l	m
28	1	2	50	2	3	1	1	2	7	1	3	3	2
29	1	2	65	2	1	1	1	3	6	1	4	3	2
30	1	2	70	1	1	1	1	2	0	2	2	1	2
31	1	2	60	2	·	·	·	·	·	·	·	·	·
1	2	1	45	3	4	1	4	7	15	1	3	2	1
2	2	1	25	2	4	1	4	7	15	1	4	2	1
3	2	1	32	3	4	1	4	7	5	2	3	1	1
4	2	1	30	3	4	1	4	7	20	2	5	1	1
5	2	1	40	2	4	1	4	7	25	1	3	2	1
6	2	1	45	2	4	1	4	3	13	1	2	1	2
7	2	1	30	3	4	1	4	7	15	1	3	1	1
8	2	1	25	3	4	1	4	7	15	2	4	1	1
9	2	1	36	3	4	1	4	7	20	1	4	1	1
10	2	1	25	3	1	1	4	7	2	2	5	1	2
11	2	1	20	3	4	1	4	7	10	2	4	1	1
12	2	1	50	2	4	1	4	7	10	1	3	2	1
13	2	1	25	3	4	1	4	7	·	1	2	2	1
14	2	1	28	2	4	2	4	7	6	2	5	1	1
15	2	1	23	2	4	1	4	3	12	1	3	1	2
16	2	1	30	4	4	1	4	7	8	2	2	1	1
17	2	1	33	2	4	1	4	7	18	1	4	1	2
18	2	1	34	2	4	1	4	7	40	2	2	1	1
19	2	1	35	3	4	1	4	5	8	1	4	1	1
20	2	1	46	2	3	1	3	·	·	1	4	1	2
21	2	1	25	3	4	1	4	3	18	1	3	1	1
22	2	1	25	2	4	2	4	7	9	2	4	2	2
23	2	1	38	3	4	1	4	5	30	2	3	1	1
24	2	1	45	3	4	1	4	7	5	1	4	2	1
25	2	1	30	3	4	1	4	7	8	1	3	1	2

Numbers refer to position on questionnire response sheet

Col 1	Col 2	Col 3	Col 4	Col 5	Col 6	Col 7	Col 8	Col 9	Col 10	Col 11	Col 12	Col 13	Col 14	Col 15
2	26	35	1	3	3	1	4	7	30	1	4	3	1	1
2	27	31	1	3	4	1	4	7	•	1	4	1	2	1
2	28	30	1	3	4	1	4	7	9	2	4	2	1	1
2	29	50	1	2	3	1	4	7	4.3	2	3	1	2	1
2	30	40	1	2	4	1	4	2	20	1	3	3	2	1
2	31	25	1			1								•
3	1	20	1	4	3	1	4	2	3	2	4	1	1	2
3	2	20	1	3	4	2	4	2	0	2	5	1	1	2
3	3	20	1	3	2	2	3	2	10	2	4	1	1	1
3	4	20	1	4	4	2	4	2	10	2	4	1	1	1
3	5	25	1	4	4	3	4	2	0	2	5	1	1	2
3	6	22	1	3	2	2	1	2	0	2	4	1	1	2
3	7	19	1	4	4	1	4	2	8	2	5	1	1	1
3	8	20	1	4	3	2	2	3	10	2	4	1	1	2
3	9	20	1	3	2	2	2	1	1	2	5	1	1	1
3	10	20	1	4	2	1	2	2	7	2	5	1	1	2
3	11	18	1	4	3	2	1	2	10	2	5	1	1	1
3	12	24	1	3	4	1	4	2	0	2	4	1	1	1
3	13	20	1	4	4	2	4	2	0	2	4	1	1	2
3	14	21	1	3	3	3	2	2	1	2	4	1	1	2
3	15	17	1	3	2	2	4	2	4	2	4	1	1	2
3	16	19	1	4	3	2	4	2	16	2	5	1	1	2
3	17	23	1	3	2	3	2	2	5	2	5	1	1	1
3	18	20	1	3	3	3	2	2	4	2	5	1	1	1
3	19	20	1	3	3	1	1	2	15	2	5	1	1	2
3	20	27	1	1	3	1	4		0	2	5	1	1	2
3	21	21	1	3	2	2	2	2	8	2	4	1	1	1
3	22	21	1	3	3	2	2	2	20	2	5	1	1	1
3	23	22.5	1	3	2	2	2	2		1	4	1	1	2

Numbers refer to position on questionnaire response sheet

Pos	c1	c2	c3	c4	c5	c6	c7	c8	c9	c10	c11	c12	c13	c14
24	2	1	1	5	2	1.5	2	3	2	3	3	1	19	3
25	1	1	1	5	2	·	2	2	2	2	4	1	23	3
26	1	1	1	5	2	15	2	2	2	2	3	1	25	3
27	2	1	1	5	2	·	2	3	3	3	2	1	22	3
28	1	1	1	4	2	10	3	4	1	4	3	1	25	3
29	1	1	1	5	2	8	2	2	1	4	3	1	25	3
30	2	2	1	5	2	3	3	4	3	4	3	1	22	3
31	1	2	1	3	1	18	2	2	3	4	1	1	20	3
1	1	·	·	·	·	·	·	·	·	·	·	2	37	4
2	1	1	3	3	1	20	3	2	3	2	2	2	35	4
3	1	2	1	4	2	0	2	4	2	4	2	2	20	4
4	1	1	2	4	1	15	1	3	3	2	2	2	30	4
5	1	1	2	4	1	25	2	2	2	4	3	2	35	4
6	1	1	1	3	1	6	2	2	2	2	2	2	36	4
7	2	2	2	1	1	20	2	3	3	2	4	2	40	4
8	2	2	3	3	1	20	3	2	2	3	2	2	30	4
9	1	1	2	3	1	10	2	4	2	4	2	2	40	4
10	1	1	3	2	2	20	3	4	3	4	2	2	40	4
11	2	2	2	2	2	15	2	2	3	2	3	2	26	4
12	1	1	1	4	1	8	2	4	3	3	2	2	25	4
13	2	2	3	1	1	·	2	3	2	4	2	2	45	4
14	2	2	2	5	2	2.5	1	4	3	3	2	2	26	4
15	1	1	1	3	2	6	3	2	2	2	2	2	27	4
16	1	3	3	4	1	5	1	2	2	2	1	2	35	4
17	1	2	1	4	2	10	3	4	4	4	2	2	25	4
18	1	2	3	3	1	15	2	1	2	2	2	2	42	4
19	1	1	1	3	1	12	2	2	2	2	2	2	35	4
20	2	1	2	4	1	17	2	1	2	2	1	2	35	4
21	1	1	1	4	2	0	4	4	3	4	3	2	26	4

Numbers refer to position on questionnaire response sheet

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	Sex	Age	ID	Grp
1	2	2	2	1	9	1	3	3	2	1	2	40	22	4
1	1	1	4	1	20	2	4	3	2	2	2	27.5	23	4
1	2	1	4	1	5	2	3	3	2	1	2	25	24	4
1	1	2	3	1		1	4	3	4	3	2	30	25	4
1	2	2	5	2	17	1	4	3	4	2	2	30	26	4
1	1	2	4	2	10	3	2	3	2	1	2	25	27	4
1	2	2	3	1	9	1	2	2	2	2	2	35	28	4
1	1	2	3	1	9	3	4	2	4	2	2	30	29	4
1	2	3	2	1	5	2	4	2	3	2	2	40	30	4
						2				2	2	27	31	4
2	1	1	4	2	3	2	2	2	2	1	2	21	1	5
2	1	1	5	2	0	1	2	3	2	1	2	21	2	5
2	1	2	2	2	10	2	3	3	2	2	2	17	3	5
1	2	2	3	2	10	2	4	2	3	2	2	19	4	5
2	2	1	4	2	7	2	1	2	3	2	2	20	5	5
2	2	1	3	2	0	2	2	3	2	2	2	23	6	5
1	1	1	4	2	12	2	2	3	2	3	2	17	7	5
1	1	1	5	2	8	2	2	3	2	2	2	19	8	5
1	1	1	5	2	1	2	2	3	2	2	2	20	9	5
2	1	1	5	2	10	2	2	3	2	2	2	19	10	5
1	2	2	4	2	5	3	2	2	2	4	2	19	11	5
2	1	1	4	2		2	2	3	2	2	2	17	12	5
1	2	1	3	1		2	3	2	4	1	2	30	13	5
2	1	2	4	2	2.5	1	2	1	3	1	2	19	14	5
1	2	2	3	2	0	2	1	2	2	1	2	18	15	5
2	1	1	3	1	2	2	2	3	2	1	2	25	16	5
1	2	2	5	2	8	2	2	2	3	2	2	18	17	5
2	1	1	5	2	0	2	2	3	2	1	2	19	18	5
2	1	1	5	2	2	2	4	3	4	2	2	18	19	5

Numbers refer to position on questionnaire response sheet

Grp	Pos	n	R1	R2	R3	R4		R5		R6	R7	R8	R9	R10	R11		R12	R13	R14		R15	R16	R17
5	20	24	2	2	3	2	·	3	·	2	2	4	3	2	3	·	4	2	1		1	2	1
5	21	23	2	3	2	3	·	2	·	3	2	3	3	2	2	·	3	2	1		1	2	1
5	22	23	2	1	3	3	·	2	·	2	3	4	7	2	1	·	2	2	2		2	2	2
5	23	22	2	1	2	3	·	3	·	2	2	3	15	2	1	·	2	1	2		1	2	2
5	24	18	2	1	4	3	·	2	·	3	4	5	1.5	2	1	·	1	1	2		2	1	2
5	25	19	2	3	3	3	·	2	·	3	3	4		2	2	·	1	1	2		1	4	2
5	26	17	2	1	2	2	·	3	·	2	3	5	5	2	3	·	1	1	2		1	5	2
5	27	22	2	1	3	3	·	2	·	2	2	5	5	2	4	·	1	1	2		1	5	2
5	28	20	2	2	2	2	·	3	·	2	3	4	8	2	2	·	1	2	2		2	4	2
5	29	18	2	1	2	2	·	2	·	3	2	5	6	2	3	·	1	1	1		1	5	2
5	30	18	2	2	2	2	·	2	·	3	2	4	0	2	2	·	1	1	1		1	4	1
5	31	32	1	3	1	1	·	1	·	3	1	2	20	1	1	·	1	2	1		2	2	1
6	1	53	1	4	3	2	·	4	·	2	3	3				·							
6	2	30	1	4	2	1	·	4	·	3	1	3	20	2	3	·	1	1	1		1	3	1
6	3	27	1	4	1	1	·	4	·	1	3	3	10	2	1	·	1	2	1		1	3	1
6	4	45	1	3	1	1	·	4	·	1	3	3	25	1	3	·	1	3	1		1	3	1
6	5	40	1	3	1	1	·	3	·	1	3	3	30	1	3	·	1	3	1		1	3	1
6	6	34	1	3	1	4	·	4	·	1	4	4	12	2	2	·	1	4	1		1	4	1
6	7	20	1	3	2	3	·	3	·	1	4	4	0	2	2	·	1	4	1		1	4	1
6	8	23	1	4	2	4	·	4	·	2	2	3	20	2	2	·	2	3	1		1	3	2
6	9	25	1	4	1	4	·	4	·	2	2	4	10	1	2	·	2	4	1		1	4	1
6	10	23	1	4	1	4	·	4	·	1	4	5	10	2	2	·	1	4	1		1	4	1
6	11	23	1	3	1	3	·	3	·	1	4	4	10	2	2	·	1	4	2		1	3	1
6	12	30	1	4	1	4	·	4	·	1	4	4	12	3	2	·	1	4	1		1	4	1
6	13	25	1	4	2	2	·	2	·	2	2	4	0	2	4	·	1	2	1		1	4	1
6	14	22	1	4	2	2	·	2	·	1	4	5	3	1	4	·	1	2	1		1	2	2
6	15	50	1	4	3	2	·	4	·	1	1	3	12	3	1	·	1	1	1		1	2	1
6	16	25	1	4	2	1	·	4	·	2	2	4	1	2	2	·	1	2	1		1	1	1
6	17	33	1	2	4	4	·	2	·	1	4	3	18	1	4	·	1	3	2		2	3	1

Numbers refer to position on questionnire response sheet

6	18	40	1	3	4	1	4	2	25	1	3	2	1	1
6	19	25	1	4	3	1	4	3	8	2	4	2	1	2
6	20	35	1	3	3	1	3		18	1	4	1	1	1
6	21	25	1	3	4	1	4	2	0	2	5	1	1	1
6	22	45	1	3	4	1	4	1	15	1	2	3	2	1
6	23	33	1	3	4	1	4	5	30	2	3	2	1	2
6	24	40	1	4	3	1	3	3	6	1	2	1	2	1
6	25	36	1	3	4	1	4	2		1	2	3	2	1
6	26	30	1	3	3	2	4	2	20	1	3	3	2	1
6	27	24	1	2	2	1	1	2	12	1	3	2	1	1
6	28	26	1	3	4	1	4	3	10	2	3	1	1	1
6	29	35	1	3	4	1	4	3	11	1	4	2	1	1
6	30	30	1	3	4	1	4	2	15	1	2	3	1	1
6	31	40	1	2	4	3	4	1		2	4	1		2
7	1	19	2											
7	2	16	2	2	4	2	3	4	0	2	3	1	2	2
7	3	25	2	2	4	2	3	5	0	2	4	1	1	2
7	4	18	2	2	3	2	3	1	20	2	4	2	1	2
7	5	20	2	3	3	3	2	5	10	2	4	1	1	2
7	6	18	2	2	3	2	3	4	0	2	3	1	1	2
7	7	18	2	2	2	3	1	4	0	2	3	1	2	2
7	8	20	2	1	3	2	3	7	15	2	4	2	1	1
7	9	20	2	2	2	3	2	5	10	2	4	1	1	2
7	10	20	2	3	3	3	3	6	2	2	5	1	1	2
7	11	19	2	2	3	2	1	3	10	2	3	2	2	1
7	12	20	2	2	2	2	2	7	6	2	4	1	1	1
7	13	19	2	1	4	3	4	7	0	2	4	1	1	2
7	14	18	2	1	2	2	3	4	2	2	5	1	2	2
7	15	19	2	2	4	2	1	5	0	2	3	1	2	2

Numbers refer to position on questionnaire response sheet

7	16	14	2	1	3	3	2	3	0	2	3	2	1	2
7	17	25	2	1	4	3	4	5	9	2	4	1	1	2
7	18	22	2	1	2	3	1	5	10	2	4	1	1	1
7	19	21	2	2	4	3	4	5	2	2	5	1	1	
7	20	20	2	1	3	3	4			2	5	3		2
7	21	22	2	3	2	2	2	5	7.5	2	4	2	1	1
7	22	21	2	1	2	3	3	4	7	2	4	3	2	2
7	23	19.5	2	2	2	2	4	3	5	2	4	2	1	2
7	24	30	2	1	2	2	2	4	5	2	4	2	1	2
7	25	18	2	2	2	2	2	4		2	2	2	2	2
7	26	15	2	1	4	1	4	3	0	2	3	1	1	2
7	27	19	2	1	2	3	3	2	5	2	5	3	1	2
7	28	20	2	2	3	3	1	5	11	2	3	3	1	1
7	29	20	2	1	3	2	3	5	4	2	5	2	1	2
7	30	25	2	1	3	2	4	3	4	2	3	2	1	1
7	31	17	2	3	1	2		5	20	2	2	3	2	3
8	1	56	1	4	1	1	4	3	25	1	2	1	2	1
8	2	45	1	4	1	1	4	3	10	2	2	1	1	1
8	3	53	1	4	4	1	4	2	28	1	3	1	2	1
8	4	55	1	4	1	1	1		30	1	3	1	1	1
8	5	45	1	3	4	1	4	2	16	1	2	1	1	1
8	6	50	1	3	4	1	2	2	30	1	3	1	1	1
8	7	50	1	3	4	1	2	5	18	1	3	2	1	1
8	8	35	1	3	4	2	4	3	20	2	3	1	1	1
8	9	60	1	4	4	1	1	2	25	1	3	1	2	1
8	10	50	1	4	1	1	4	3	20	1	2	1	2	1
8	11	45	1	2	3	1	4	3	14	1	2	1	2	1
8	12	40	1	3	4	1	4	3		1	3	2	1	1
8	13	50	1	3	1	2	1	5		1	1	3	2	1

Numbers refer to position on questionnire response sheet

8	#		1		1		1			1				1
8	14	35	1	3	1	1	4	5	11	1	3	1	1	1
8	15	45	1	3	3	1	1	3	16	1	2	2	2	1
8	16	30	1	3	4	1	4	2	20	1	2	3	1	1
8	17	55	1	3	4	1	2	2	20	1	4	2	2	1
8	18	55	1	3	1	1	4	3	25	1	3	2	2	1
8	19	60	1	3	1	1	4	2	12	1	3	2	2	1
8	20	40	1	3	1	1	1		19	1	3	1	1	1
8	21	48	1	3	4	1	4	5	12	1	3	3	2	1
8	22	55	1	3	1	1	1	2	15	1	2	2	2	1
8	23	47.5	1	3	4	1	4	5	30	2	3	3	1	2
8	24	50	1	4	4	1	4	2	7	1	2	1	2	1
8	25	46	1	4	1	1	4	2		1	2	3	1	1
8	26	45	1	4	1	1	2	3	30	1	2	3	2	1
8	27	45	1	3	4	1	4	2	15	1	3	3	1	1
8	28	40	1	3	1	1	1	3	10	1	2	3	2	1
8	29	40	1	3	1	1	1	5	12	1	2	3	1	2
8	30	50	1	3	1	1	4	2	30	2	4	2	1	1
8	31	47	1	3	3	1	4			1	3	2	2	1

Numbers refer to position on questionnire response sheet

Appendix XII - Statistical Trend Tests

Test of the variables:- Age, Height, Out With, Hair Colour, Hair Length, Eye colour, Go Out, and Earns

The eight rated speakers were arranged in rank order according to the variable examined. Where more than one speaker represented a particular value of a variable, judgements were taken to be multiple judgements on the same value and were individually averaged across speakers (eg Speakers one, two and three all represent the same value of the earnings variable (say 12k). Participant one rating speaker one as 2, speaker two as 4 and speaker three as 6, would create just one data point - 4 - in the 12k column. *This was achieved using the formula functions on Excel III.*

Next, a Freidman test was performed across the columns, to test for any significant differences and, if so, the mean ranks were recorded. *This was achieved using Statview SE + Graphics.*

Finally, a Pages L test was performed on the mean ranks. *This was achieved by a combination of purpose-deigned Excel III spreadsheet created by the author, and pencil and paper!* See Marascuilo and McSweeney (****) for a full description of the Pages L test.

For some variables, a test on a sub-section was performed (eg females). In each case, all non-members of the sub-set were removed from the start and then an identical procedure followed.

For some variables, a trend across two rated variables, rather than a rated variable and its actual value, was calculated. The procedure for these tests was otherwise identical.

Test Summary

Age - X^2 = 183.218 X^2 corrected for ties = 185.353
$$p<0.0001$$
Ordered mean ranks: - 2.306, 1.887, 2.048, 5.21, 4.806, 4.968, 7.79, 6.984
Speaker represented: - 3, 7, 5, 2, 6, 1, 8
Pages L = 70.617   Variance of Pages L = 32.516
Z= 12.38   p<.0001

Height - X^2 = 130.156 X^2 corrected for ties = 149.836
$$p<0.0001$$
Ordered mean ranks: - 2.133, 2.7, 3.517, 6.583, 2.833, 6.583, 5.033, 6.617
Speaker represented: - 1, 7, 4, 8, 5, 3, 2, 6
Pages L = 48.501   Variance of Pages L = 32.516
Z= 8.505   p<0.0001

For females only: X2 corrected for ties=14.33   p=.0025
Pages L = 1.83 Z=1.74   p=.04

For males only: X2=26.604   p<.0001
Pages L = -0.834
Z=0.79 p=0.20

For males only without speaker 2 X2 corr ties =0.426 p=0.81

Out With - X^2 = 23.217 X^2 corrected for ties = 26.283
$$p<0.0001$$
Ordered mean ranks: - 1.683, 1.6, 2.717
Speaker represented: - 1&2&5&7, 3&4, 6&8
Pages L = 1.034
Z= 4.01   p<0.0001

For married X^2 corrected for ties=2.896 p=.2351

Hair Col. - X^2 = 29.25 X^2 corrected for ties = 31.679
$$p<0.0001$$

Ordered mean ranks: - 1.667, 2.25, 2.667, 3.417
Speaker represented: - 1&8,4&5&7,3,2&6
Pages L = 5.667   Variance of Pages L = 1.11
Z= 5.38   p<0.0001

Remove speaker 2 (foreign) X2 ties = 19.308   p=.0002
Ordered mean ranks:1.733,2.467,2.717,3.083
Pages L = 4.3 Variance of Pages L = 1.11
Z=4.05   p<.0001

Remove speaker 2 and all greying or grey - X2 ties = 4.097 p=.129

Hair Length - X^2 = 35.267 X^2 corrected for ties = 39.185
$$p<0.0001$$
Ordered mean ranks: - 1.233, 2, 2.767
Speaker represented: - 2&3&4&6&8, 1&5, 7
Pages L = 1.534
Z= 5.95   p<0.0001

For females only: Pages L = -.167   p=n.s.

Eye Colour - $X^2 = 38.948$ X^2 corrected for ties = 41.833
$$p<0.0001$$

Ordered mean ranks: - 2.345, 1.845, 2.052, 3.759
Speaker represented: -   3&8,1&4&5&6,7,2
Pages L = 4.449   Variance of Pages L = 1.11
Z= 4.22 $p<0.0001$

Without speaker 2 (foreign, dark eyes) X2 ties=3.182   p=.204

Go Out - $X^2 = 3.37$ X^2 corrected for ties = 3.98
$$p=.26$$
No trend test calculated due to non-significance.

Earn - $X^2 = 56.776$ X^2 corrected for ties = 58.774
$$p<0.0001$$
Ordered mean ranks: - 1.64, 2.66, 2.44, 4.78, 3.48
Speaker represented: -   1&3&7,4,2&5,8,6
pages L = 7.64   Variance of Pages L = 1.667
Z= 5.92 $p<0.0001$

For males only:
X2 corrected for ties = 49.118 p<.0001
Ordered ranks: 1.24,2.5,3.68,2.58
Pages L =5.2 Z=4.92 p<.0001

For females only:
X2 corrected for ties = 23.599 p=.0001
Ordered ranks = 1.923, 2.692, 1.385
Pages L = -0.538 Z=0.512 p=0.30 n.s.

For four oldest speakers:
X2 corrected for ties = 49.656 p<.0001
Ordered ranks 1.519,2.037,3.778,2.667
Pages L = 5.185 Z=4.91 p<.0001

For youngest speakers
Only 2 levels - 0k and 12k
Wilcoxon comparison in similar manner to appendix XV
Z corr ties =-3.689   p=.0002

Age Conf - $X^2 = 10.22$ X^2 corrected for ties = 15.02
$$p=.026$$
Ordered mean ranks: - 5.571,4.405,5.095,3.571,4.452,4.071,4.833
Speaker represented: -   3,7,5,2,6,4,8,1
pages L = -11.05   Variance of Pages L = 32.516
Z= -11.05   p=.026

Age trend in 'Out With' - X2 corrected for ties = 89.37 p<.0001
Ordered Ranks: 6.567,5.25,6.05,4.883,2.633,3.467,3.983,3.167

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Pages L =-40.134   Z=-6.92 $p<.0001$

Age Trend in Earnings - X2 corr ties = 34.4 $p<.0001$
Ordered ranks: 3.04,2.94,2.38,5.78,5.82,4.92,7.56,3.56
Pages L = 34.4 Z = 6.03 $p<.0001$

Appendix XIII - Summary of Evaluation Statements

Below are the various statements made and the number of times they occurred.

Clear Images - No or not really 8, Sometimes 12, Yes 10

Approaching the task -IMAGINATION AND/OR COMPARISON 20, DIRECT FROM NON VERBAL ELEMENTS OF VOICE 7, OTHER METHODS 3, NOT POSSIBLE APART FROM AGE AND SEX 1

Age, Area, Sex - Sex easy 11, Age difficult 5, Area difficult 11

Other questions - EARNINGS DIFFICULT 12, NO INFORMATION TO WORK ON 4, FACIAL CHARACTERISTICS DIFFICULT/IMPOSSIBLE 5

Less frequent comments -

Images - Hair colour and age, Some easier than others 3, Older easier

Approach - Tried to imagine what person might look like 13,
Comparison to known similar others 5, Comparison to typical person of
that age, sex and area 2, Age, sex, accent not judged directly, not from
image. 2, Use of voice and word pronunciation, Voice depth and tone
for sex and age, Resonance and tone 3, Elimination of obviously wrong
answers, Stereotyping life style from face, Guesswork, Determination
of age helped imaging, Anything apart from age and sex impossible

Age, Area, Sex - Young/old easy - not exact age 2, Age more difficult
in women, Older ages more difficult, No really young people, Most
southerners

Other - Impossible to tell 2, Guess work 2, Eye Colour difficult 3, Hair
colour difficult, Hair colour impossible, Marital status difficult 1, Car
ownership not possible 1, Sport and social outings with older people
difficult

Further Comments

From participant 31 (verbatim):

"I did not honestly be able to tell country area or ethnic origin because I
am rubbish at accents or age"

"If this was a serious attempt at some form of social psychology then
there should have been an 'unknown' box so I think some of these were

probably just to cloud the subject from knowing the purpose, if not this paper is probably useless sorry!"

"I couldn't answer beyond age and sex because how should I know marital status or eye colour from a voice and I can't sterotype peoples social life or any other part even with some limited contact"

Appendix XVI -   Confidence. Ratings

Sex Confidence		Married Confidence		Age Confidence			
	Earns Conf						
1	4.87 .562	3.1	.995	3.0	.91	1.96	.98
2	4.90 .396	3.0	1.33	3.04	.99	2.1	.89
3	4.93 .365	4.04*	1.16	3.71*	.90	2.69*	1.2
4	4.93 .365	3.32	1.34	3.13	1.10	2.23	.90
5	4.83 .648	3.75*	1.18	3.43*	1.06	2.04	1.0
6	4.87 .507	3.29	1.33	3.26	1.13	2.40	1.0
7	4.94 .371	3.67*	1.21	3.27	1.08	2.44	1.2
8	4.80 .516	3.70*	1.09	3.15	1.23	2.43	1.1
MEAN 4.89		3.48		3.24		2.29	

Appendix XIV - Testing of Binomial Variables

Due to the design of the experiment, a simple 2x2 chi-square test was not appropriate. Instead, all yes responses were recoded as '1' and all 'no's as '0'. Speakers were split into two groups corresponding to the compared variable (eg sports players and non-sports players). In each group, each listener's responses to the different speakers were summed, and then divided by the number of speakers considered. Hence, if of the five sports players, a particular listener rated three as sports players, a number of 0.6 would be recorded.

These two 'totals' columns were then compared using a Wilcoxon Signed Rank test. The results are as follows:

Sports Participation

Wilcoxon signed-rank X_1 : Yes TOTAL Y_1 : **No TOTAL**

	Number:	Σ Rank:	Mean Rank:
- Ranks	2	5	2.5
+ Ranks	27	430	15.926

Z	-4.595	p = .0001
Z corrected for ties	-4.607	p = .0001
# tied groups	7	

Note: 1 case deleted with missing values.

Wilcoxon signed-rank X_1 : Yes Sprt FEMALE Y_1 : **No Sprt FEMALE**

	Number:	Σ Rank:	Mean Rank:
- Ranks	2	17	8.5
+ Ranks	16	154	9.625

note 11 cases eliminated for difference = 0.

Z	-2.983	p = .0029
Z corrected for ties	-3.258	p = .0011
# tied groups	2	

Note: 1 case deleted with missing values.

Wilcoxon signed-rank X_1 : Yes MARRIED Y_1 : **No Sprt MARRIED**

	Number:	Σ Rank:	Mean Rank:
- Ranks	0	0	.
+ Ranks	22	253	11.5

note 8 cases eliminated for difference = 0.

Z	-4.107	p = .0001
Z corrected for ties	-4.354	p = .0001
# tied groups	2	

Wilcoxon signed-rank X $_1$: 4 Yng Sp Y   Y $_1$: 4 Yng Sp N

	Number:	Σ Rank:	Mean Rank:
- Ranks	10	76	7.6
+ Ranks	11	155	14.091

note 8 cases eliminated for difference = 0.

Z	-1.373	p = .1698
Z corrected for ties	-1.401	p = .1613
# tied groups	3	

Note: 1 case deleted with missing values.

Wilcoxon signed-rank X $_1$: 4 Old Sprt Yes   Y $_1$: 4 Old Sprt No

	Number:	Σ Rank:	Mean Rank:
- Ranks	0	0	.
+ Ranks	22	253	11.5

note 8 cases eliminated for difference = 0.

Z	-4.107	p = .0001
Z corrected for ties	-4.354	p = .0001
# tied groups	2	

Car Ownership

Wilcoxon signed-rank X $_1$: Yes TOTAL   Y $_1$: No TOTAL

	Number:	Σ Rank:	Mean Rank:
- Ranks	3	30	10
+ Ranks	20	246	12.3

note 4 cases eliminated for difference = 0.

Z	-3.285	p = .001
Z corrected for ties	-3.365	p = .0008
# tied groups	3	

Note: 4 cases deleted with missing values.

Wilcoxon signed-rank X_1 : 4 OLD CAR Y   Y$_1$: **4 OLD CAR N**

	Number:	Σ Rank:	Mean Rank:
- Ranks	3	6	2
+ Ranks	15	165	11

note 11 cases eliminated for difference = 0.

Z	-3.462	p = .0005
Z corrected for ties	-3.718	p = .0002
# tied groups	2	

Note: 1 case deleted with missing values.

Wilcoxon signed-rank X_1 : 4 YNG CAR No   Y$_1$: **4 YNG CAR yes**

	Number:	Σ Rank:	Mean Rank:
- Ranks	7	71	10.143
+ Ranks	17	229	13.471

note 4 cases eliminated for difference = 0.

Z	-2.257	p = .024
Z corrected for ties	-2.315	p = .0206
# tied groups	3	

Note: 2 cases deleted with missing values.

Marital Status

Wilcoxon signed-rank X_1 : No TOTAL   Y$_1$: **Yes TOTAL**

	Number:	Σ Rank:	Mean Rank:
- Ranks	28	406	14.5
+ Ranks	0	0	.

note 2 cases eliminated for difference = 0.

Z	-4.623	p = .0001
Z corrected for ties	-4.692	p = .0001
# tied groups	4	

XV - Biographical comparisons

Wilcoxon signed-rank X $_1$: Male Hair L   Y $_1$: **Female Hair L**

	Number:	Σ Rank:	Mean Rank:
- Ranks	3	6	2
+ Ranks	0	0	.

note 1 cases eliminated for difference = 0.

Z	-1.604	p = .1088
Z corrected for ties	-1.633	p = .1025
# tied groups	1	

Wilcoxon signed-rank X $_1$: Male Earnings   Y $_1$: **Female Earnings**

	Number:	Σ Rank:	Mean Rank:
- Ranks	1	1	1
+ Ranks	3	9	3

Z	-1.461	p = .1441

Wilcoxon signed-rank X $_1$: Male Height   Y $_1$: **Female Height**

	Number:	Σ Rank:	Mean Rank:
- Ranks	0	0	.
+ Ranks	4	10	2.5

Z	-1.826	p = .0679
Z corrected for ties	-1.857	p = .0633
# tied groups	2	

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