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Synaesthesia Research Programme: Information for Participants

What is synaesthesia?

People with synaesthesia experience unusual sensations (e.g., of colour, of taste) when doing things that wouldn't usually trigger those sensations for non-synaesthetic people. In some cases, this means that a synaesthete might experience a sensation in one of the 5 senses (hearing, vision, taste, touch, smell) that is triggered by a different sense (e.g. sounds trigger tastes, smells trigger colours etc.).

What are the aims of the research?

The aim of the research is to understand the cognitive, developmental and biological basis of synaesthesia. This might also tell us more about ordinary perceptual experiences and its relationship to thinking, memory and language.

What is involved with taking part?

First of all, you will be asked to fill in a general questionnaire (enclosed) and to describe any synaesthetic experiences that you have in response to a list of letters and words. You do not have to answer all the questions if you feel uncomfortable about it. However, it is useful for our research to gain as complete a picture as possible and all information you give will be treated in confidence. Following this, we may contact you again (by either phone, e-mail or letter) to invite you to take part in further studies. These will involve basic tests of memory and perception. None of the tasks are harmful or stressful.

Will my data be kept confidential?

Your personal details (name, address, etc.) will not be passed on to anybody else outside of our research group without first gaining your written consent. A current list of people in our research group can be found on our website (www.syn.ucl.ac.uk). You will be referred to in our records and in any publications by your initials (or other code), in accordance with the data protection act.

How long will the research go on for and can I drop out?

The amount of times we may ask you to take part in an experiment is likely to differ from person to person. As a general rule of thumb, we may contact you a couple of times over the course of one year. You are under no obligation to take part, and you may refuse to take part for whatever reason and without giving any explanation.

Please fill in the following :

Name of participant : _____

Address : _____

Telephone number : _____

E-mail : _____

I have read the information above and I agree to take part in the study. I understand that I may withdraw at any point in the future.

Signed (by participant) : _____ Date : _____

Section A2. TYPES OF SYNAESTHESIA

Please match the triggers on the left with experiences on the right. For instance, if you experience colours in response to numbers then draw a line in between 'numbers' (left) and 'colours' (on right), and so on. There is no need to draw lines between the same things (e.g. colours - colours) as this is assumed to be true of everyone.

TRIGGERS

Letters of alphabet

English words

Foreign words

Peoples names

Numbers

Days of week

Months of year

Voices

Pains

Touch

Body postures

Music (instrumental)

Noises

Smells

Tastes

Colours

Shapes

Emotions

Fingers

Faces

Places

Other (e.g., musical notation, chess pieces, cars, animals, plants); please specify: _____

EXPERIENCES

Colours

Shapes

Tastes

Smells

Noises

Music

Pain

Touch

Do these experiences have specific locations (e.g., they feel as if they are on your body, on words or objects in the environment, in front of your eyes) or not (e.g. they feel as if they are in 'your minds eye')? Please describe.

Section A3. COLOURED SPEECH & COLOURED READING

I experience colours when I listen to someone speaking... YES NO

I experience colours when I look at written material (reading silently)... YES NO

(If you answered **NO** to both questions then please move on to Section A4. If you answered YES to either question then please continue.)

Is your synaesthesia more intense when hearing speech or reading silently?

Hearing more intense Reading more intense Equally intense Not applicable

Is your synaesthesia more automatic when hearing speech or reading silently?

Hearing more automatic Reading more automatic Equally automatic Not applicable

When looking at written material, i.e. silent reading, which of the following statements applies to you... (please tick)

- I see a coloured copy of the letters in my mind's eye and black and white on the page
 - I see a block of colour (but not letters) in my mind's eye and black and white on the page
 - I see colour that appears to be coming out from underneath the (black and white) text on the page
 - I see colour that appears to float above the (black and white) text on the page
 - I have a strong sense of 'knowing' the colour of the letters but I do not 'see' them in any of the ways described above (please describe if you can)
 - I don't experience any colours
 - Other. Please explain
-

When listening to someone speaking which of the following statements applies to you... (please tick)

- I see a coloured copy of the letters in my mind's eye (like coloured subtitles)
 - I see a block of colour (but not letters) in my mind's eye
 - I see colour that appears to be located in the space outside of my body
 - I see colour that appears to come from the speaker's mouth
 - I have a strong sense of 'knowing' the colour but I do not 'see' them in any of the ways described above (please describe if you can)
 - I don't experience any colours
 - Other. Please explain
-

Section A4. ABILITIES and DIFFICULTIES

Do you find that you often get left and right confused?

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

Do you have problems navigating or finding your way around places?

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

Do you have (or have you ever had) problems with understanding numbers and/or calculation?

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

Do you have (or have you ever had) problems with reading and spelling?

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

If YES, then were you ever formally assessed for dyslexia? _____

Do you have a problem recognizing or remembering familiar faces, including people you see often, close friends or relatives?

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

When you are given a telephone number to remember, which of the following best describes the way you would remember it?

- Say it to myself over and over in my head
- Take a 'mental picture' of what it looks like
- Other (please explain) _____

Can you read music? YES (fluently) YES (nonfluent) NO

If yes, at what age did you start learning? _____

Do you play any instruments? If yes, to what level? At what age did you start?

Instrument 1 _____

Instrument 2 _____

(If you learnt more please give details separately)

Section B1. THE ALPHABET

↓ In the column marked '0-9', please indicate how intense your synaesthetic experience is on a 0 to 9 scale (where 0 = nothing at all, and 9 = a very strong experience). This might relate to how confident you are that you are experiencing something. You can use the entire range of numbers (if some sensations are stronger than others) or repeat the same numbers (if the intensity doesn't vary much).

↓ In the column marked 'Description', we would like you to describe succinctly your synaesthetic experience (e.g. deep blue, fried onion). If you don't experience anything at all then just put a dash in the column.

	0-9	Description
a		
b		
c		
d		
e		
f		
g		
h		
i		
j		
k		
l		
m		

	0-9	Description
n		
o		
p		
q		
r		
s		
t		
u		
v		
w		
x		
y		
z		

Do capital letters (ABC...) have the same synaesthetic experience as lower case letters (abc...)? (please circle)?

TRUE for all letters TRUE for some letters FALSE

Is the synaesthetic experience more intense for...? (please circle)

Capitals Lowercase No difference Varies from letter to letter

Do you think about the alphabet being arranged in a specific pattern in space (e.g. in a line, or circle)?

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

If you answered 'agree' or 'strongly agree' then please try to draw this in the space below

Section B2. NUMBERS

↓ In the column marked '0-9', please indicate how intense your synaesthetic experience is on a 0 to 9 scale (where 0 = nothing at all, and 9 = a very strong experience). This might relate to how confident you are that you are experiencing something. You can use the entire range of numbers (if some sensations are stronger than others) or repeat the same numbers (if the intensity doesn't vary much).

↓ In the column marked 'Description', we would like you to describe succinctly your synaesthetic experience (e.g. deep blue, fried onion). If you don't experience anything at all then just put a dash in the column.

	0-9	Description
0		
1		
2		
3		
4		
5		
6		
7		
8		
9		

	0-9	Description (same as 0,1,2,3...?)
zero		
one		
two		
three		
four		
five		
six		
seven		
eight		
nine		

Do you think about the numbers being arranged in a specific pattern in space (e.g. in a line, or circle)?

Strongly disagree

Disagree

Neither agree nor disagree

Agree

Strongly agree

If you answered 'agree' or 'strongly agree' then please try to draw this in the space below and answer the additional questions (if not, then move to the next section).

Does your number line appear to be in the space outside of your body or your mind's eye?

(e.g. '1' is about 10 inches from my left shoulder or the number line is not defined relative to your body) _____

Does your number line appear in a fixed position or do you 'zoom' in on certain parts of the number line when thinking of specific numbers?

FIXED

ZOOM IN

Do you actively use your number line when carrying out calculation tasks?

YES NO

Section B3. DAYS AND MONTHS

↓ In the column marked '0-9', please indicate how intense your synaesthetic experience is on a 0 to 9 scale (where 0 = nothing at all, and 9 = a very strong experience). This might relate to how confident you are that you are experiencing something. You can use the entire range of numbers (if some sensations are stronger than others) or repeat the same numbers (if the intensity doesn't vary much).

↓ In the column marked 'Description', we would like you to describe succinctly your synaesthetic experience (e.g. deep blue, fried onion). If you don't experience anything at all then just put a dash in the column.

	0-9	Description
Monday		
Tuesday		
Wednesday		
Thursday		
Friday		
Saturday		
Sunday		
January		
February		
March		

	0-9	Description
April		
May		
June		
July		
August		
September		
October		
November		
December		

Do you think about the DAYS being arranged in a specific pattern in space (e.g. in a line, or circle?)

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

If you answered 'agree' or 'strongly agree' then please try to draw this in the space below and answer the additional questions (if not, then move to the next page).

Do your days appear to be in the space outside of your body or your mind's eye? (e.g. 'today' is about 10 inches from my left shoulder) or elsewhere? _____

Do your days appear in a fixed position or can you 'zoom' in on certain parts when thinking of specific days? FIXED ZOOM IN

Do you actively picture your days when planning your time? YES NO

Section B3. DAYS AND MONTHS (continued)

Do you think about the MONTHS being arranged in a specific pattern in space (e.g. in a line, or circle?)

Strongly disagree

Disagree

Neither agree nor disagree

Agree

Strongly agree

If you answered 'agree' or 'strongly agree' then please try to draw this in the space below and answer the additional questions (if not, then move to the final question in this section).

Do your months appear to be in the space outside of your body or your mind's eye? (e.g. 'today' is about 10 inches from my left shoulder or are they not defined relative to your body)?

Do your months appear in a fixed position or can you 'zoom' in on certain parts when thinking of specific days?

FIXED

ZOOM IN

Do you actively picture your months when planning your time?

YES

NO

Do you think about anything else not mentioned earlier (e.g., temperature, show sizes, years, weight, height, salaries) as being arranged in a specific pattern in space?

Strongly disagree

Disagree

Neither agree nor disagree

Agree

Strongly agree

If you answered 'agree' or 'strongly agree' then please try to draw this in the space below

Section B4. WORDS

↓ In the column marked '0-9', please indicate how intense your synaesthetic experience is on a 0 to 9 scale (where 0 = nothing at all, and 9 = a very strong experience). This might relate to how confident you are that you are experiencing something. You can use the entire range of numbers (if some sensations are stronger than others) or repeat the same numbers (if the intensity doesn't vary much).

↓ In the column marked 'Description', we would like you to describe succinctly your synaesthetic experience (e.g. deep blue, fried onion). If you don't experience anything at all then just put a dash in the column.

NOTE: Some of the words are deliberately made-up!

	0-9	Description		0-9	Description
ked			cud		
bem			wholemeal		
shid			prince		
boak			peg		
snite			hair		
hance			crow		
dringe			graze		
squate			gnome		
doop			pet		
nar			cool		
serial			cinder		
died			hint		
bat			wrung		
symbols			tab		
pod			lute		
cent			pat		
yew			sent		
gender			bruise		
sheik			Neil		
wrap			sloth		
hour			sells		
bind			closer		
wreck			cereal		
link			choke		
pint			pier		
kneel			plumb		
hertz			whirlpool		
loot			dyed		
knights			peer		
brakes			psalm		
cells			froth		
pot			ewe		
bind			tasty		
tub			phrase		
bark			rap		

Section B4. WORDS (continued)

	0-9	Description		0-9	Description
beg			shed		
knot			shake		
hurts			breaks		
hay			circle		
rye			fir		
brews			tank		
grumble			mint		
kelp			fur		
pig			brow		
wharf			pub		
hey			choir		
cymbals			foot		
vale			thorny		
cod			prey		
pit			kit		
nights			rung		
wry			covert		
veil					

Section B5. PERSONALITIES & GENDERS

Do you think about letters as having personalities or genders? (please circle)

Genders? YES NO Personalities? YES NO

Do you think about numbers as having personalities or genders? (please circle)

Genders? YES NO Personalities? YES NO

(If you answered **NO** to all four questions then please move on to Section B6. If you answered **YES** to any question then please continue.)

- ↓ In the column marked 'm/f?', we would like you write the gender of the letter, as either m (= male) or f (= female) or leave a dash if you don't feel strongly either way.
- ↓ In the column marked '0-9', please indicate confident you feel about each letter's letter on a 0 to 9 scale (where 0 = no feelings, and 9 = a very strong feeling). You can use the entire range of numbers (if some feelings are stronger than others) or repeat the same numbers (if the intensity doesn't vary much).
- ↓ In the column marked '**Description**', we would like you to describe succinctly and to the best of your ability the personality of any of the letters below (e.g. bossy). If you don't experience anything at all then just put a dash in the column.

	m/f	0-9	personality	0-9
a				
b				
c				
d				
e				
f				
g				
h				
i				
j				
k				
l				
m				

	m/f	0-9	personality	0-9
n				
o				
p				
q				
r				
s				
t				
u				
v				
w				
x				
y				
z				

	m/f	0-9	personality	0-9
0				
1				
2				
3				
4				

	m/f	0-9	personality	0-9
5				
6				
7				
8				
9				

Section B6. MISCELLANEOUS

Do you experience touch sensations on your own body when you observe them on another person's body?

Strongly disagree

Disagree

Neither agree nor disagree

Agree

Strongly agree

Do punctuation symbols give synaesthetic experiences? YES NO

If YES, please write your associations to the following symbols...

	0-9	Description		0-9	Description
!			@		
?			£		
.			\$		
,			%		
:			&		
;			*		
"			#		
'			+		
(-		
)			x		
{			+		
}			=		
/			→		

MANY THANKS FOR YOUR TIME!

(Please return to the address on the front sheet)