Statistical learning of actions | Survey Format

Familiarization Instructions | Beginning

Famil\_Instr On the next page, quickly press the play button in the bottom left-hand corner. After you press the play button, do *not* click the video controls, as this will prevent you from viewing the entire video.  
  
For the first viewing of the video, please remain seated.

Familiarization Video

*Participants will watch a four minute forty second familiarization video, picked randomly for each trial.*

[familiarization video name] Please press play.

{trigram video}

Familiarization Instructions | Middle & End

*Participants will see these instructions before the second and third iterations of the familiarization video.*

Stand\_Up Please stand up and

*If condition = active:* copy the movements you observe as best you can. Follow along as the video plays as if you were looking in a mirror (see the illustration below).

A drawing of a cartoon character

Description automatically generatedA picture containing clock, drawing

Description automatically generated

*If condition = passive:* in place. Please keep your arms at your sides and your legs still (see the illustration below).

A close up of a computer

Description automatically generatedA close up of a sign

Description automatically generated

Implicit Instructions

Implicit\_Instr Well done!  
   
 You will now see a short clip of three movements on the screen. Your job is to indicate whether or not you have seen that set of movements, *in the particular order shown*, during the previous video. If you think you have seen the set of movements before, select Y. If you think you have not, select N.

[trigram video name] Implicit

*Participants will view eight trigrams, four familiar (i.e. from the familiarization video), and four unfamiliar. Each trigram will be followed by the two following questions.*

{trigram video}

[trigram video name]\_Recognition Have you seen these movements, in that order, before?

* Y (1)
* N (2)

[trigram video name]\_Likert How confident are you in your response to the previous question?

|  |  |  |
| --- | --- | --- |
|  | not confident  at all | very  confident |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

|  |  |
| --- | --- |
|  |  |

Explicit Instructions

Explicit\_Test\_Instr Well done! Let's see whether you can produce some of the movements from the original video.  
  
Please remain standing and find a spot in front of your computer that allows you to move with a full range of motion.  
  
When you’re ready, advance to the next question.

Explicit\_Test\_Instr Great! Now you will see two movements in a row. In the diagram below, these are represented by the two red figures on the laptop screens, marked by a 1 and 2. Please keep your hands at your sides while you watch, as the person is doing below.

*You will then be prompted by a question mark to produce the movement that you think should come next, based on the video you saw.* This third movement is represented by the green figure in the thought bubble, marked by a 3. When you do your movement, please "mirror" what you think it would look like on the screen. For example, the person below is lifting their right hand while the figure on screen would be lifting their left hand.

[trigram video name] Explicit

*Participants will view the four familiar trigrams, only this time the last movement of each trigram will be replaced by a question mark. They will then be asked to perform what they think is the correct movement. Finally, they will be shown the correct movement and asked the questions below.*

[trigram video name]c What comes next?

{trigram video with question mark}

[trigram video name]c\_Likert How confident are you that your movement was the correct one?

|  |  |  |
| --- | --- | --- |
|  | not confident  at all | very  confident |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

|  |  |
| --- | --- |
|  |  |

[trigram video name]Q Here’s the correct movement.

{correct movement video}

Correct\_Mvt\_[trigram video name] Did you perform the correct movement?

If so, select Y.

If not, select N. Please describe which movement you performed instead of the correct one.  
  
If you performed a partially correct movement, such as performing the correct motion but on the opposite side, select P. Please explain how your movement was partially correct by comparing your movement to the one in the video.

* Y (1)
* N (2) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* P (3) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Experience Survey | Instructions

Exp\_Surv\_Instr Congratulations! You have finished the main portion of the study.  
  
Next we have a short survey about the types of dance, martial arts, sports, and outdoor activities that you've done. If you have no experience in an area, check the appropriate box.

Experience Survey | Dance

Dance\_Forms In which forms of dance have you been formally trained?  
  
We define "formal training" as taking an official class with a teacher on a regular basis, or intensive personal experience.

* I have received no formal dance training. (1)
* Ballet (2)
* Ballroom (3)
* Belly Dancing (4)
* Bhangra (5)
* Folk (6)
* Hip-hop (7)
* Jazz (8)
* Modern (9)
* Pop (10)
* Salsa (11)
* Swing (12)
* Square (13)
* Tango (14)
* Tap (15)
* Other: (16) \_\_\_\_\_\_\_\_\_\_\_\_\_
* Other: (17) \_\_\_\_\_\_\_\_\_\_\_\_\_
* Other: (18) \_\_\_\_\_\_\_\_\_\_\_\_\_
* Other: (19) \_\_\_\_\_\_\_\_\_\_\_\_\_

*Skip To: End of Block If In which forms of dance have you been formally trained? We define "formal training" as taking an... = I have received no formal dance training.*

*Carry Forward Selected Choices - Entered Text from "In which forms of dance have you been formally trained? We define "formal training" as taking an official class with a teacher on a regular basis, or intensive personal experience.”*

Dance\_Details In the first column, please write how long you’ve engaged in formal training in each of the activities you selected.   
   
In the second column, please write how recent your training experience was. If you're currently training, please write "0".  
  
In the third column, please rate your level of expertise on a scale of 0 to 6 in each of the activities you checked (0 = novice, 1 = beginner, 2 = advanced beginner, 3 = beginner intermediate, 4 = advanced intermediate, 5 = advanced, 6 = expert.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Experience (years) (1) | How recent? (years) (2) | Expertise Rating (0 to 6) (4) |
| I have received no formal dance training. (x1) |  |  |  |
| Ballet (x2) |  |  |  |
| Ballroom (x3) |  |  |  |
| Belly Dancing (x4) |  |  |  |
| Bhangra (x5) |  |  |  |
| Folk (x6) |  |  |  |
| Hip-hop (x7) |  |  |  |
| Jazz (x8) |  |  |  |
| Modern (x9) |  |  |  |
| Pop (x10) |  |  |  |
| Salsa (x11) |  |  |  |
| Swing (x12) |  |  |  |
| Square (x13) |  |  |  |
| Tango (x14) |  |  |  |
| Tap (x15) |  |  |  |
| Other: (x16) |  |  |  |
| Other: (x17) |  |  |  |
| Other: (x18) |  |  |  |
| Other: (x19) |  |  |  |

Experience Survey | Martial Arts

Martial\_Arts In which **martial arts** have you been formally trained?  
  
 We define "formal training" as taking an official class with a teacher on a regular basis, or intensive personal experience.

* I have received no formal martial arts training. (1)
* Aikido (2)
* Boxing (3)
* Brazilian Jiu Jitsu (4)
* Capoeira (5)
* Filipino Kali (6)
* Japanese Jiu Jitsu (7)
* Jeet Kune Do (8)
* Judo (9)
* Karate (10)
* Krave Maga (11)
* Kung Fu (12)
* Mixed Martial Arts (MMA) (13)
* Muay Thai/Thai Boxing (14)
* Sambo (15)
* Sumo (16)
* Tae Kwon Do (17)
* Wing Chun (18)
* Wrestling (19)
* Other: (20) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Other: (21) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Other: (22) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Other: (23) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Skip To: End of Block If In which forms of dance have you been formally trained? We define "formal training" as taking an... = I have received no formal dance training.*

*Carry Forward Selected Choices - Entered Text from "In which forms of dance have you been formally trained? We define "formal training" as taking an official class with a teacher on a regular basis, or intensive personal experience.”*

Martial\_Arts\_Details In the first column, please write how long you’ve engaged in formal training in each of the activities you selected.  
  
In the second column, please write how recent your training experience was. If you're currently training, please write "0".  
  
In the second column, please rate your level of expertise on a scale of 0 to 6 in each of the activities you checked (0 = novice, 1 = beginner, 2 = advanced beginner, 3 = beginner intermediate, 4 = advanced intermediate, 5 = advanced, 6 = expert).

|  |  |  |  |
| --- | --- | --- | --- |
|  | Experience (years) (1) | Click to write Scale Point 3 (3) | Experience Rating (0 to 6) (4) |
| I have received no formal martial arts training. (x1) |  |  |  |
| Aikido (x2) |  |  |  |
| Boxing (x3) |  |  |  |
| Brazilian Jiu Jitsu (x4) |  |  |  |
| Capoeira (x5) |  |  |  |
| Filipino Kali (x6) |  |  |  |
| Japanese Jiu Jitsu (x7) |  |  |  |
| Jeet Kune Do (x8) |  |  |  |
| Judo (x9) |  |  |  |
| Karate (x10) |  |  |  |
| Krave Maga (x11) |  |  |  |
| Kung Fu (x12) |  |  |  |
| Mixed Martial Arts (MMA) (x13) |  |  |  |
| Muay Thai/Thai Boxing (x14) |  |  |  |
| Sambo (x15) |  |  |  |
| Sumo (x16) |  |  |  |
| Tae Kwon Do (x17) |  |  |  |
| Wing Chun (x18) |  |  |  |
| Wrestling (x19) |  |  |  |
| Other: (x20) |  |  |  |
| Other: (x21) |  |  |  |
| Other: (x22) |  |  |  |
| Other: (x23) |  |  |  |

Experience Survey | Outdoor Activities

Outdoor\_Activities In which **outdoor activities** have you been formally trained?

We define "formal training" as taking an official class with a teacher on a regular basis, or intensive personal experience.

* I have received no formal outdoor activities training. (1)
* Backpacking (2)
* Biking (3)
* Canoeing (4)
* Kayaking (5)
* Rock Climbing (6)
* Skiing (7)
* Other: (8) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Other: (9) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Other: (10) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Other: (11) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Skip To: End of Block If In which forms of dance have you been formally trained? We define "formal training" as taking an... = I have received no formal dance training.*

*Carry Forward Selected Choices - Entered Text from "In which forms of dance have you been formally trained? We define "formal training" as taking an official class with a teacher on a regular basis, or intensive personal experience.”*

Outdoor\_Details In the first column, please write how long you’ve engaged in formal training in each of the activities you selected.

In the second column, please write how recent your training experience was. If you're currently training, please write "0".

In the second column, please rate your level of expertise on a scale of 0 to 6 in each of the activities you checked (0 = novice, 1 = beginner, 2 = advanced beginner, 3 = beginner intermediate, 4 = advanced intermediate, 5 = advanced, 6 = expert).

|  |  |  |  |
| --- | --- | --- | --- |
|  | Experience (years) (1) | How recent? (years) (3) | Experience Rating (0 to 6) (4) |
| I have received no formal outdoor activities training. (x1) |  |  |  |
| Backpacking (x2) |  |  |  |
| Biking (x3) |  |  |  |
| Canoeing (x4) |  |  |  |
| Kayaking (x5) |  |  |  |
| Rock Climbing (x6) |  |  |  |
| Skiing (x7) |  |  |  |
| Other: (x8) |  |  |  |
| Other: (x9) |  |  |  |
| Other: (x10) |  |  |  |
| Other: (x11) |  |  |  |

**Experience Survey | Sports**

Sports\_Details Sports In which **sports** have you been formally trained?

We define "formal training" as taking an official class with a teacher on a regular basis, or intensive personal experience.

* I have received no formal sports training. (1)
* Baseball (2)
* Basketball (3)
* Circus Arts (4)
* Cricket (5)
* Cross Country (6)
* Diving (7)
* Equestrian Sports (8)
* Field Hockey (9)
* Figure Skating (10)
* Football (American) (11)
* Gymnastics (12)
* Ice Hockey (13)
* Lacrosse (14)
* Rugby (15)
* Sailing (16)
* Soccer (17)
* Speed Skating (18)
* Squash (19)
* Swimming (20)
* Tennis (21)
* Track and Field (22)
* Ultimate Frisbee (23)
* Water Polo (24)
* Other: (25) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Other: (26) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Other: (27) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Other: (28) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Skip To: End of Block If In which forms of dance have you been formally trained? We define "formal training" as taking an... = I have received no formal dance training.*

*Carry Forward Selected Choices - Entered Text from "In which forms of dance have you been formally trained? We define "formal training" as taking an official class with a teacher on a regular basis, or intensive personal experience.”*

|  |  |  |  |
| --- | --- | --- | --- |
|  | Experience (years) (1) | How recent? (years) (2) | Experience Rating (0 to 6) (3) |
| I have received no formal sports training. (x1) |  |  |  |
| Baseball (x2) |  |  |  |
| Basketball (x3) |  |  |  |
| Circus Arts (x4) |  |  |  |
| Cricket (x5) |  |  |  |
| Cross Country (x6) |  |  |  |
| Diving (x7) |  |  |  |
| Equestrian Sports (x8) |  |  |  |
| Field Hockey (x9) |  |  |  |
| Figure Skating (x10) |  |  |  |
| Football (American) (x11) |  |  |  |
| Gymnastics (x12) |  |  |  |
| Ice Hockey (x13) |  |  |  |
| Lacrosse (x14) |  |  |  |
| Rugby (x15) |  |  |  |
| Sailing (x16) |  |  |  |
| Soccer (x17) |  |  |  |
| Speed Skating (x18) |  |  |  |
| Squash (x19) |  |  |  |
| Swimming (x20) |  |  |  |
| Tennis (x21) |  |  |  |
| Track and Field (x22) |  |  |  |
| Ultimate Frisbee (x23) |  |  |  |
| Water Polo (x24) |  |  |  |
| Other: (x25) |  |  |  |
| Other: (x26) |  |  |  |
| Other: (x27) |  |  |  |
| Other: (x28) |  |  |  |

**Demographics**

Demographics\_Instr Now we have a few final questions. You may skip any question that you do not feel comfortable answering.

Birth\_Year What is your year of birth? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Education What is the highest level of school you have completed or the highest degree you have received?

* Less than high school degree (1)
* High school graduate (high school diploma or equivalent including GED) (2)
* Some college but no degree (3)
* Associate degree in college (2-year) (4)
* Bachelor's degree in college (4-year) (5)
* Master's degree (6)
* Doctoral degree (7)
* Professional degree (JD, MD) (8)

Occupation What is your occupation? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Gender What is your gender?

* Female (1)
* Male (2)
* Other: (3) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Race Choose one or more races that you consider yourself to be:

* American Indian or Alaska Native (3)
* Asian (4)
* Black or African American (2)
* Hispanic or Latinx (6)
* Native Hawaiian or Pacific Islander (5)
* White (1)
* Other: (7) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_