

## **Novel Noun Generalization task Coding Manual**

### **Coders:**

Please access the coding excel document and complete it; add comments where necessary.

### **Video Editing**

1. Open Wondershare and load the videos that you wish to trim.
2. Highlight one video and go to Edit → Trimming.
3. Search through the video for where the experimenter turns off the lights (if this does not happen, look for another obvious event visible from both cameras). Go back a few seconds from this happening – trying to get it perfect might make it harder to sync the videos up in DataVyu.
4. Hit the “Add trim marker” button, and extend the green highlighted video section all the way to the end. Click "Done."
5. Repeat for the second video, finding the same start – don't worry about it being specific.
6. Specify the Output folder.
7. Check that .mp4 is selected in the bottom row, and be sure to name the new file as the trimmed version by adding a T to the end of the filename and then hit “Convert.”

Open DataVyu and open up the ENNG template by going to the template folder

Once this is open, add the data by going to the controller and hitting “Add Data” and start by syncing them up. Keep one video locked in place by pressing the padlock, and move the other to sync them up by looking at:

- Lights - The first way to sync the videos up. Match the experimenter turning off the lights to it going dark on both cameras at the same time.

After syncing by the lights, look through at some of the other indicators to see if the video is matched up:

- Movement – When the experimenter places an object on the table, match this up with both cameras.
- Sound- this is coming from the Front View(FV) camera and will need to match the image of the experimenter talking, as seen in the Back View (BV) camera.

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- Time - use the clock for the time in the background of FV and compare it to the time on the timestamp of BV- [these are not exactly perfect, but they should be pretty close].

All the details above may depend on the type of video you have. These are specific to the files and types of formats we used.

### **OVERVIEW OF CODING**

#### **1<sup>st</sup> Pass: Create Trials**

Trial – can be any coder.

- Code from when the objects first appear to when the experimenter takes away objects to put back into the box.
- Do this for warm up and novel object trials.
- Novel objects typically come in sets of 4 trials but can be less if there was a problem (e.g. The child didn't want to continue).
- Warmups only appear in trials of 1, as there are new objects each time. For the warmup trials we just code the trial rather than each section as well.
- Some examples of the notation used is the following both for warm up and novel trials
  - w (warm up), sh (object), 1 (trial)
  - n (novel), f (object), 1/2/3/4 (trial)

#### **2<sup>nd</sup> Pass: Create Section**

TrialSection – can be any coder.

- Snap the region to watch just an individual Trial section at a time.
- Use BV only.
- Should be split into "familiarisation", "presentation", and "test" Details about the splits can be found in 2c(i) (the pictures) below in the detailed coding.
- Familiarisation starts as soon as the experimenter's hands pass the bottom line of the box and ends when they take the last object back at the top of the box.
- The trial starts when both hands are away from the display objects and ends when they touch the first object that is not the exemplar, once the trial is completed.

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### **3<sup>rd</sup> Pass: Basic Choice Coding**

Basic – can be any coder.

- Basic choice is defined as the first object the participant touches after the example object is displayed (touches before this are not counted).
- You may need to go frame by frame if both objects are picked up to see which one the child touches first.

### **4<sup>th</sup> Pass: Choice Coding**

Choice - has to be different from the 3<sup>rd</sup> pass coder; avoid being the experimenter if possible.

- Based on which object the coder believes the child really wanted to choose. It could be because they chose an object before the test object was shown, which influenced their choice or because the child was looking at one object for a long time but chose the other.

### **5<sup>th</sup> Pass: Looking**

Looking – can be any coder.

- Go to Looking notes below.
- Snap the region on DataVuy to only look at the “presentation” and “test” section.

### **6<sup>th</sup> Pass: Touch**

Touch - can be any coder.

- Mark whatever object the child is touching.
- Sometimes multiple objects will be held, mark each object that they are holding.
- Snap the region to only look at the familiarisation section.

### **7<sup>th</sup> Pass: Speech**

LanguageSection & LanguageMarker – can be any coder.

We only code language during the test section when the stimuli are first presented on the stage for naming until the child’s final response

- The prompt can happen multiple time, each one gets a number to keep track

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\*Reliabilities by a different coder.

### **STEP-BY-STEP**

Preparing to Code Instructions - These details are specific to our sharing and filing system.

1. Go to “ENNG-current” on the share folder.
2. Make a new file and name [subject’s code].
3. Open DataVyu.
4. Open ENNG Coding Template, found in the DataVyu folder.
5. Go to File → Save As... → DDlabAV → ENNG-current → datavyu[subject code].
6. Save as the participants code
  - a. Open the trimmed videos in DataVyu and press play. You will need to match the videos using lights being turned off as a visual prompt. First, lock the videos by clicking the padlock button on the tracks, you can then unlock them one at a time to move tracks around. Zoom in all the way (using the slider in the top right of the controller window) at the beginning of the videos. Move one video at a time, to try to match up the videos so they both go dark at the same time. You can then look at other parts of the video and see if they are synced up by sound, movement, and the clock.

### **Step-by-Step Coding Instructions**

#### **1. Trials**

- a. <type>
  1. w = warm-up
  2. n = novel
- b. <setname>

#### **WARM UP**

- s = sheep
- sh = shoe
- du = duck
- ca = carrot

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- co = cow
- lb= ladybirds
- pl/ae= plane
- pc=police car

### Novel Trials

- z = zup (wood pacman)
- m = mip (mouse)
- k = kiv (claw)
- f = fum (circle with 4 points)

c. <trialnumber>

- i. Trial number – what trial you’re on.
- ii. Start again from 1 for every set.

d. Onset - (see 2c(i))

e. Offset - (see 2c(i))

f. There should usually be 18-20 total trials – 2-4 for warm-ups and 4 per each test set.

## **2. TrialSection**

a. <type>

- f = familiarization
- p=presentation
- t = test

b. <position>

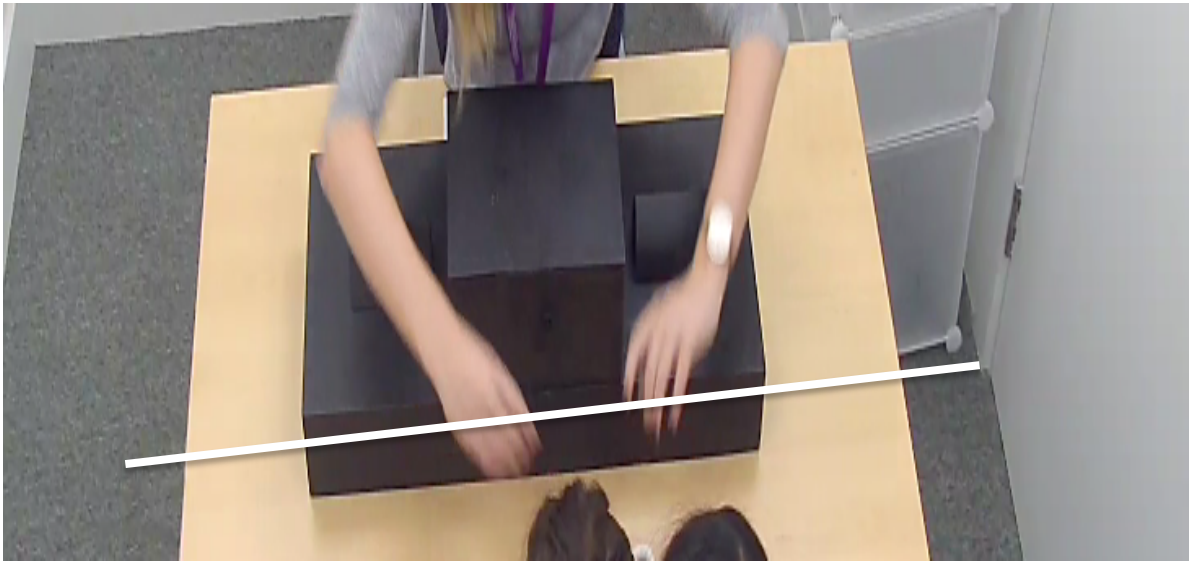
- Only for Presentation and Testing, add where the shape match is located from the coders point of view (POV) of FV.
- l=left
- r=right

c. Onset and Offset – from 2c to 3 (pictures below).

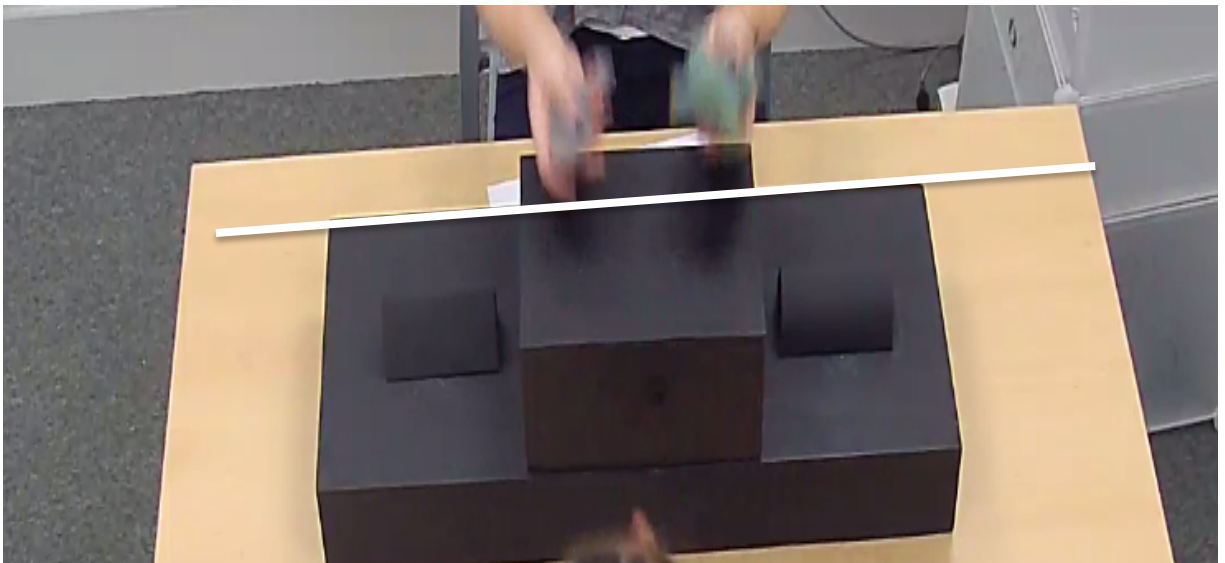
i. Onset and Offset **for familiarisation**

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- a. Onset – When coming back from placing the objects down, when the hands pass the line shown here.



- b. Offset – as soon as the last object goes past the line of the end of the box



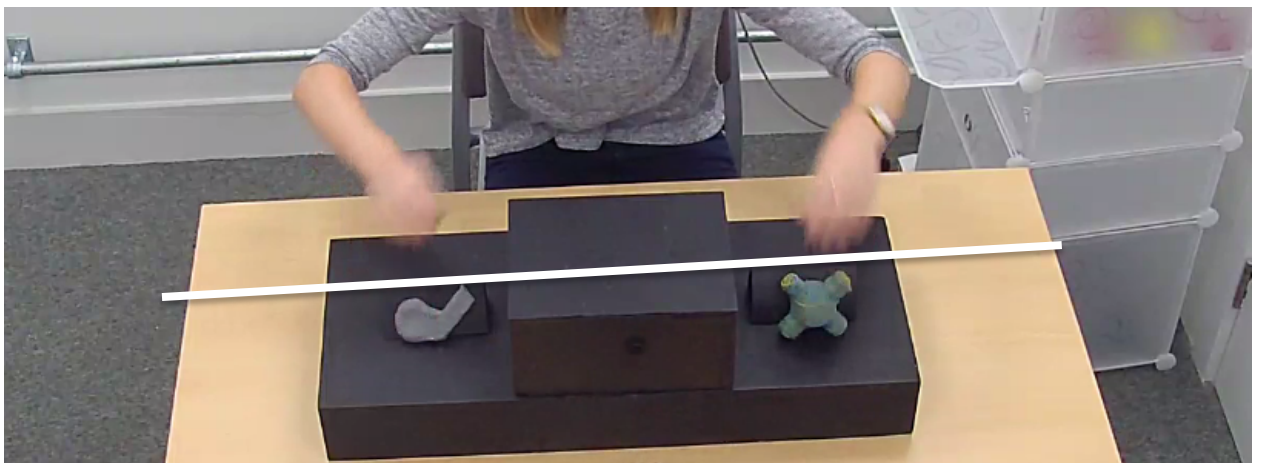
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### ii. Onset and Offset **for presentation**

- a. Onset- As soon as the first object goes past the line at the end of the box.



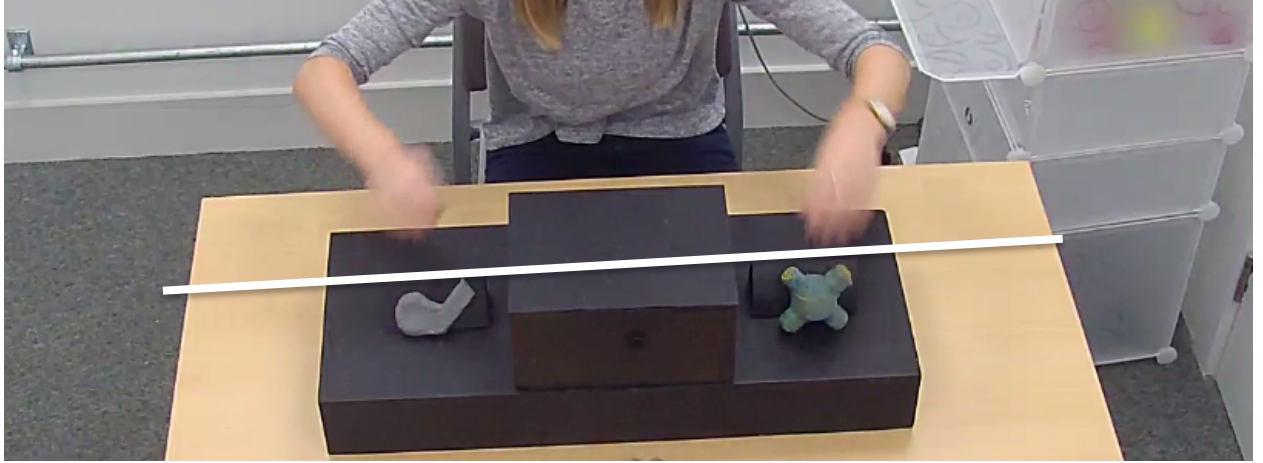
- b. Offset- As soon as both hands are off and away from the two objects (which is also the Onset for **test**).



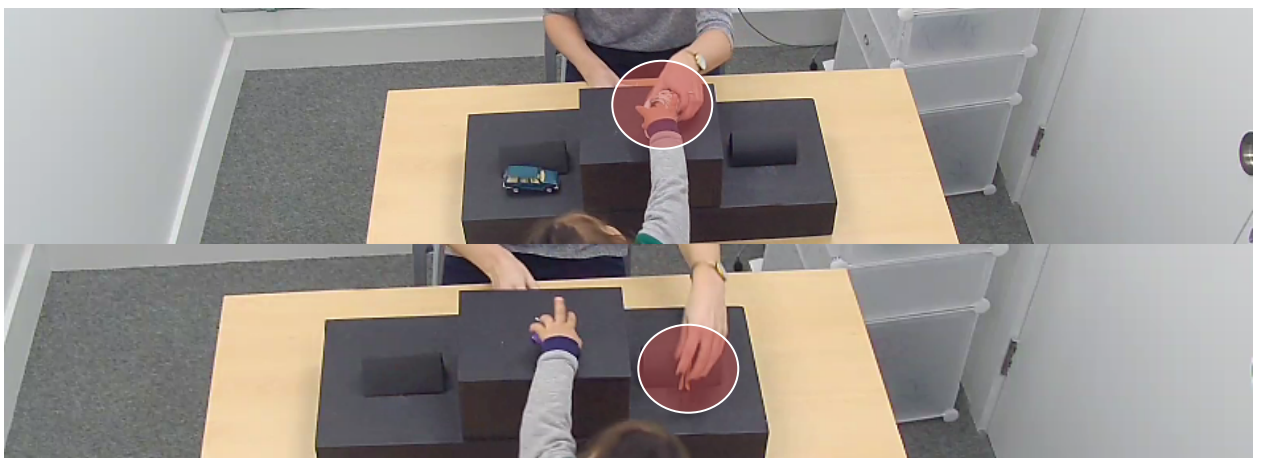
### iii. Onset and Offset **for test**

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- a. Onset – As soon as both hands are off and away from the two objects.



- b. Offset – As soon as the experimenter picks up an object that was not the example shown. This can be either through it being passed to them, or them picking up the other object on the table. Do not do this if the experimenter sets up the same experiment again, in that case, wait until this happens again.





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**THESE NEXT SECTIONS ARE ONLY RELEVANT TO THE NOVEL TRIALS, NOT THE WARM UP**

### **3. Basic**

- <test object/ position>
  - Only relevant for the test section.
  - Look at the BV.
  - Code which object the child picks up or touches first **after** being shown the example object.
  - Go frame by frame if the child chooses two at the same time and code whichever one the hand hits first. If both hands touch the objects at the same time code “nr”
  - r = right coder's POV
  - l = left coder's POV
  - nr = no response
- <selection>
  - Whether the object chosen is matching by **shape** or **material** with the exemplar.
    - s=shape
    - m=material

### **4. Choice**

Which object does the child seem to want to pick, in your opinion? Does the child originally touch one, but then goes for the other? Does the child choose before objects are set up? Does the child not really want either but picks randomly because they are being asked to?

You must select the object that you truly believe the child thought was called by the novel name. For the most part, the choice is clear, but occasionally this will be very hard. If you think the child did not want either, or seems confused, then code “nr” for no response.

- <choice>
  - l = left coder's POV
  - r = right coder's POV

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- nr = no response
- <selection>
  - s=shape
  - m=material
  - nr = no response

### 5. End of trial (when final child choice is made)

Following the instruction for Choice but the **Offset must be the moment where the child touches** their 'Choice' object. If no response Offset is when experimenter picks an object from the stage to end the trial.

- <choice>
  - l = left
  - r = right
  - nr = no response
- <selection>
  - s=shape
  - m=material
  - nr = no response

### 6. Looking

Use the FV (Side View (SV) if needed) video to code looking. This is from the coder's POV by looking at the FV/SV camera. E.g., if the child looks to the left of the FV/SV camera, code as "l". Use SV to identify positions and directions that cannot be seen clearly by FV.

Press 0 on the keyboard when looking changes, so that it is created with a .001 second gap between the two looks.

If the child is looking left and then looks right, go back one frame from the eye shift and mark this as the change time. Don't mark the change *after* it has happened, but rather just the frame *before* it happened.

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### Presentation and Test

- <look>
  - l = left object from coders POV of FV
  - r = right object from coders POV of FV
  - u = up (experimenter/ experimenter hands or test object)
  - p = parent
  - o= off
  - oc= off camera
- Off is for any frames where the child is not looking in any of the other directions OR when the child blinks for more than 3 frames.
- Off-camera fits if the eyes are hidden/ cannot be seen by the coder for more than 10 frames.
- If the child is looking at a point and an object moves in front of them, check if their gaze changes; if not, leave as the original code in the cell right before.
- Use SV whenever the child's eyes cannot be seen in FV.

Onset – when the eye moves to a new location.

- Must be a minimum of three frames in a location to code it.
- The onset time is the frame just before the movement.
- Offset – the last frame before the saccade to the new location.

### **7. Touch**

<code01> <code02> <code03>

- Only relevant for familiarisation.
- Look at the BV.
- Code which object the child is currently touching.
- If the child is touching multiple, put them in the same column.
- If the child is holding one object, and then keeps holding it while they pick up another, create a new code at the start of the touch of the new object and put both items in.

A. s = Shape

B. m = material

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C. e = exemplar

### **8. LanguageSection**

1. <type>
  - a. b = before prompt
  - b. d = during prompt
  - c. a = after prompt
2. If first re-prompt, include 1 before code.
  - a. Example: 1d
3. If second re-prompt, include 2 before code.
  - a. Example: 2d

### **9. LanguageMarkers**

- i. Listen to the experimenter's speech to find out when the experimenter says each part of the prompt.

<language>

- a. ls = label start: "This is my"
- b. lon = label object name: "dax"
- c. ps = prompt start: "Can you get me your"
- d. pon = prompt object name: "dax"
- e. Repeat if re-prompt

If first re-prompt, include 1 before code.

- f. Example: 1lon
- g. This would correspond to the first re-prompt's label onset.

If second re-prompt, include 2 before code.

- h. Example: 2pon
- i. This would correspond to the second re-prompt onset.