

**Appendix for LIA 12.2, Miorelli and Dąbrowska, The Development of morpho-syntactic productivity in Italian-speaking children**

**ONLINE APPENDIX:**

**THE EXPERIMENTAL SCRIPT**

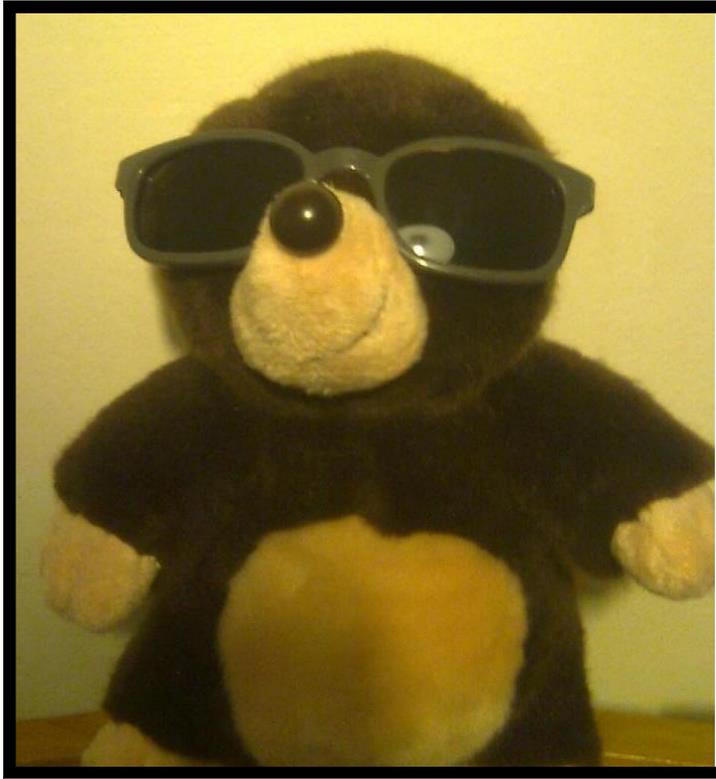
**1. THE FAMILIARISATION PHASE**

During the first day of familiarisation, the Experimenter (E) was introduced to the children by the teachers. Afterwards, he casually played with them and participated in the nurseries' routines for about two hours in order to gain the children's trust.

On the second day, the children were introduced to Silvia the mole (*la talpa Silvia*), a plush mole who wore sunglasses (Figure A1). They were told that the animal was blind, a bit silly (*tonta*) and continually fell asleep.

Familiarisation with the mole's narcolepsy, blindness and with the task (answering her questions) was obtained in the following ways:

- a) The children were told that *Silvia* normally lived underground and she needed her sunglasses to protect her eyes. Silvia "took part" in the normal daily routine of the nurseries, consisting of chatting, playing, singing etc., during which the children helped her to overcome her blindness-related problems by answering her questions (*where is X? What are you doing? Can you carry me there? I can't see*). Throughout the casual play that took place during this phase, Silvia continually fell asleep.
- b) When awake, Silvia very frequently asked questions about what had happened whilst she was sleeping (*what happened? What did you do? What did X do?*).
- c) When the busy schedules of the nurseries permitted it, the non-structured game was also accompanied by a puppet show, which was meant to further familiarise children with the toy-characters and the experimental task.



**Figure A1:** Silvia the Mole.

## **2. THE INDIVIDUAL SESSION**

### **2.1. WARM UP**

#### **2.1.1. Introducing the child to the task**

The Experimenter (E) and the child arrive at the location where the test phase (i.e. the individual session) takes place and find out that *Silvia the Mole* is sleeping.

E: *Oh, Silvia sta ancora dormendo.*

‘Oh, Silvia is still sleeping.’

E: *Che dormigliona!*

‘What a sleepyhead!’

E: *Allora, facciamo così: la lasciamo dormire un po' e intanto ti faccio vedere come giocano le sue amiche Peppa ed Emily.*

‘Ok, let’s do this: we’ll let her sleep a bit and in the meantime I’ll show you how her friends Peppa and Emily play.’

E: *poi, quando si sveglia, tu le spieghi cosa hanno fatto.*

‘Afterwards, when she wakes up, YOU’ll explain to her what they have done.’

E: *hai voglia di aiutarmi a spiegare alla Silvia cosa fanno le sue amiche?*

‘Would you like to help me explain to *Silvia* what her friends do?’

### **2.1.2. Naming the toys**

If the child says yes, E thanks the child and then introduces him/her to Peppa and Emily. E also makes sure that the child can pronounce their names. If the child cannot or does not want to pronounce their names, E and the child negotiate a new name for either or both toys.

Afterwards, E hides both toys behind his back and then displays one toy at a time while asking the child “who is she?”.

Once the child has answered appropriately twice in a row for each toy, E and the child casually play with them for 1 or 2 minutes.

Afterwards, E hides both toys behind his back and a further naming trial starts. E shows the child one toy at a time and asks her/him “is this Peppa/Emily?” while holding either toy (i.e. he asks *is this Peppa?* while holding either Peppa or Emily). Once the child has answered appropriately (*yes, it’s Peppa* or *no, it’s Emily*, depending on the circumstance) three times in a row (two target answers are negative - *no, it’s Emily* – and one is positive – *yes, it’s Peppa*), the game moves on to the training phase (training verbs) and then to the experimental phase (familiar verb and nonce verb).

## **2.2. PRESENTATION (Training and Experimental Phase)**

For each verb, the experimenter went through the Introduction and Blocks 1-3; if the child did not produce a productive answer during the experimental phase, another training block (Block 4) was added (see below for details). In the example below, the familiar verb *lanciare* ‘to throw’ appears in the “VA” construction, with Emily as agent and Peppa as patient.

The headings in the following sections provide information about the total number of imperative (imp) and infinitive (inf) forms of the target verb that were used in each block. The letters C and E indicate the child and the Experimenter, respectively. Thus, “E: 5 imp” (see heading of the section “Introduction” below) indicates that the experimenter utters five infinitive forms of the same verb. Similarly, “C: 1 inf” indicates that the child utters one infinitive form of the verb. In the text below, the experimental stimuli are printed in **BOLD CAPITALS**.

### **2.2.1. Introduction (E: 5 inf/ C: 1 inf).**

E: *Adesso ti faccio vedere una cosa che si chiama **LANCI-ARE**.*

‘Now, I’ll show you something that is called **THROW-INF**.’

E: *Sai dire **LANCI-ARE**?*

‘Can you say **THROW-INF**?’

All children were able to correctly pronounce the infinitive form of all verbs.

E: *Bravo/a! ... adesso ti faccio vedere come si fa a **LANCI-ARE**.*

‘Very good, now I’ll show you how to **THROW-INF**.’

[Alternatively, E would say *vuoi vedere come si fa a **LANCI-ARE**?* ‘Do you want to see how to **THROW-INF**?’ or *sai come si fa a **LANCI-ARE**?* ‘Do you know how to **THROW-INF**?’]

E: *Allora ... guarda cosa la **EMILY** fa alla **PEPPA**.*

‘Ok then, look at what **EMILY** is going to do to **PEPPA**.’

E: *Ti faccio vedere cosa **LA EMILY** fa **ALLA PEPPA**.*

‘I’ll show you what **EMILY** is going to do to **PEPPA**.’

E makes Emily act upon Peppa

E: *Hai visto cosa la EMILY ha fatto alla PEPPA?*

‘Have you seen what EMILY did to PEPPA?’

E makes Emily act upon Peppa twice

E: *Vuoi farglielo fare tu, alla EMILY?*

‘Do YOU want to make EMILY do that?’

The child makes Emily act upon Peppa as many times as s/he wants. While s/he is making Emily act upon Peppa, E takes TWO occasions in which the child is clearly paying attention to him to say:

E: *Ma quanto bello é LANCI-ARE?*

‘But how cool is it to **THROW-INF**?’

E: *Ma ti piace LANCI-ARE?*

‘Do you like to **THROW-INF**?’

### **2.2.2. Block 1 (E: 4 imp + 2 inf).**

E: (talking to Emily) *Brava, Emily!*

‘Well done, Emily!’

E: *Posso farglielo fare io, adesso?*

‘Can I make her do that?’

If the child says no, E lets the child play for a further minute or so and then asks the above question again. Once the child is happy for E to have a turn with the agent (i.e. Emily), the game proceeds as follows:

E: (talking to Emily) *Brava, ancora Emily!*

‘Well done, another time, Emily!’

E: (talking to Emily) *Dai, sù! LANCI-A, EMILY!*

‘Com’on, **THROW-IMP.2.SG, EMILY!**’

E Tries to get EMILY close to PEPPA, but EMILY refuses to act upon Peppa.

E: (talking to Emily) *Cosa c'è adesso, EMILY?*

‘What’s wrong now, EMILY?’

E: (talking to Emily) *Non vuoi LANCI-ARE?*

‘Don’t you want to **THROW-INF?**’

Emily, voiced and moved by E, says “no”.

E: (talking to Emily) *Dai, sù! LANCI-A, EMILY!*

‘Com’on, **THROW-IMP.2.SG, EMILY!**’

E:(talking to Emily) **LANCI-A, EMILY!**

‘**THROW-IMP.2.SG, EMILY!**’

EMILY: (talking to E) *ok, va bene, ma solo perché c'è il/la CHILD'S NAME.*

‘Ok, fine, but only because CHILD’S NAME is here.’

E makes Emily act upon Peppa

E: (talking to Emily) *Brava EMILY, vedi che se vuoi sai LANCI-ARE!*

‘Well done, EMILY, you see that you are able to **THROW-INF**, if you want to!’

E: (talking to Emily) *Ancora, dai! LANCI-A, EMILY!*

‘Com’on, again! **THROW-IMP.2.SG, EMILY!**’

E makes Emily act upon Peppa.

### **2.2.3. Block 2 (E: 3 imp + 1 inf).**

E: *Vuoi farglielo fare tu alla EMILY ?*

‘Do YOU want make EMILY do that?’

In the above line, E basically invites the child to make the toys perform the action, and therefore the child is made to make Emily act upon Peppa for a minimum of three times.

Afterwards, E says to the child:

E: *Ok, adesso facciamo un nuovo gioco.*

‘Ok, let’s play a new game, now.’

E: (talking to the child) *ogni volta che ordino alla EMILY di LANCI-ARE, glielo fai fare tu. Va bene?*

‘Ok, now, any time that I order Emily to **THROW-INF**, YOU make her do that, is that ok?’

At this point, E orders Emily to perform the action by uttering the imperative stimulus three times. Each time, the child makes Emily act upon Peppa, as shown below.

E: (talking to Emily) *LANCI-A, EMILY!*

‘**THROW-IMP.2.SG, EMILY!**’

The child makes Emily act upon Peppa

E: (talking to Emily) *LANCI-A, EMILY!*

‘**THROW-IMP.2.SG, EMILY!**’

The child makes Emily act upon Peppa

E: (talking to Emily) *LANCI-A, EMILY!*

‘**THROW-IMP.2.SG, EMILY!**’

The child makes Emily act upon Peppa

#### **2.2.4. Block 3 (E: 4/5 imp + 1 inf/ C: 5 or more imp).**

E: *Ma che bravo/a che sei!*

‘How clever you are!’

E: *Mi lasci farlo a me adesso, così divento bravo come te?*

‘Can I do it now, so that I become as good as you?’

The child hands Emily over to E and twice the latter orders Emily to act upon the patient (i.e. Peppa), but she refuses both times, as shown below.

E: (talking to Emily) *LANCI-A, EMILY!*

‘**THROW-IMP.2.SG, EMILY!**’

Emily, voiced and moved by E, refuses to act upon Peppa and says “no”.

E: (talking to Emily) **LANCI-A, EMILY!**

**'THROW-IMP.2.SG, EMILY!'**

Emily, voiced and moved by E, refuses to act upon Peppa and says no.

E then asks the child to persuade Emily to act upon Peppa, as shown below.

E: *Mammamia, la Emily non mi ubbidisce. Prova a dirglielo tu di LANCIA-ARE.*

'Goodness me, Emily is not obeying me. You try telling her to **THROW-  
INF.**'

E: *Magari a te ti ascolta.*

'Maybe, she'll listen to you.'

E: dille **LANCI-A, EMILY! LANCIA-ARE EMILY!**

'Tell her: **THROW-IMP.2.SG, EMILY! THROW-IMP.2.SG, EMILY!**'

At this point, the child orders Emily to act upon Peppa five times; each time E makes Emily act upon Peppa. In the middle of the below sequence, a further failed attempt from E (identical to previous Emily's refusals to act) is inserted, if necessary (e.g. if the child stops ordering Emily to act upon Peppa).

CHILD: (talking to Emily) **LANCI-A, EMILY!**

**'THROW-IMP.2.SG, EMILY!'**

E makes Emily act upon Peppa.

CHILD: (talking to Emily) **LANCI-A, EMILY!**

**'THROW-IMP.2.SG, EMILY!'**

E makes Emily act upon Peppa.

CHILD: (talking to Emily) **LANCI-A, EMILY!**

**'THROW-IMP.2.SG, EMILY!'**

E makes Emily act upon Peppa.

CHILD: (talking to Emily) **LANCI-A, EMILY!**

**'THROW-IMP.2.SG, EMILY!'**

E makes Emily act upon Peppa.

CHILD: (talking to Emily) **LANCI-A, EMILY!**

**'THROW-IMP.2.SG, EMILY!'**

E makes Emily act upon Peppa.

### **2.3. FIRST ELICITATION**

Silvia wakes up and E draws the child's attention to this.

E: *Oh, guarda, Silvia si è svegliata!*

'Oh, look, Silvia woke up.'

Silvia approaches and greets the child and then asks him/her:

SILVIA: *CHILD'S NAME, mi dici cosa ha fatto la Emily?*

'CHILD'S NAME, can you tell what Emily did?'

SILVIA: (talking to the child) *che cosa ha fatto la Emily?*

'What did Emily do?'

If the child answers using the target verb (i.e. *lanciare* 'to throw') in the target construction (i.e. a *passato prossimo* transitive utterance, as in (3) and (4) in the main text), the game moves on to the "in-between verbs" phase (see 2.6. below) and then to another verb.

However, if this does not happen, the game moves on differently, depending on whether the answer (or non-answer) pertains to the training verbs or the verbs in the experimental phase (i.e. familiar verb and novel verb).

If, DURING TRAINING (*lavare* 'to wash' and *pettinare* 'to comb'), the child:

- a) uses the target verb, but does not provide the target answer, or
- b) uses a verb different from the target one used in the game (in the example *lanciare* 'to throw'), or
- c) stays silent,

s/he is helped to produce the target answer. If needed, E suggests the answer to the child who is encouraged to repeat it to Silvia. Afterwards the game moves on to the "in-between verb phase" (see 2.6. below) and then to another verb.

If, during the EXPERIMENTAL PHASE (*lanciare* ‘to throw’ and *bodare* ‘to nonce.verb’), the child

- a) provides a syntactically and morphologically unproductive answer, or
- b) uses a verb different from the target one used in the game (in the example *lanciare* ‘to throw’), or
- c) stays silent,

a further block of stimuli is in order (*block 4*, see below).

#### **2.4. BLOCK 4 (optional; E: 5 imp + 2 inf/ C: 3 or more imp. Experimental Phase only).**

E attempts to provide an answer to Silvia but she falls asleep before he can finish his sentence. Thus, E suggests that the child and he go on playing a bit more, while Silvia sleeps. All children were thrilled to do so.

E: (talking to Silvia) *Silvia, è successo che +//.*

‘Silvia, it happened that +//.’

Silvia the Mole falls asleep.

E: *Ma hai visto?!*

‘Have you seen!?’

E: *Questa si è addormentata ancora!*

‘She fell asleep, again!’

E: (talking to the child) *Allora, noi andiamo avanti e quando si sveglia tu riprovi a spiegarle cosa ha fatto la Emily. Va bene?*

‘Well, we’ll carry on playing and when she wakes up, you try explaining to her what Emily did, ok?’

All children confirmed that they were happy to continue.

E: *grazie, sai, che mi aiuti, perché la Silvia è proprio una dormigliona.*

‘Thanks. You know, you are really helping me, because Silvia is a real sleepy-

head.'

E: (talking to Emily) *Emily, hai ancora voglia di **LANCI-ARE**?*

'Emily, do you still want to **THROW-INF**?'

Emily, voiced and moved by E, enthusiastically agrees.

E:(talking to Emily) ***LANCI-A, EMILY!***

'**THROW-IMP.2.SG, EMILY!**'

E makes Emily act upon Peppa.

E:(talking to Emily) ***LANCI-A, EMILY!***

'**THROW-IMP.2.SG, EMILY!**'

E makes Emily act upon Peppa.

At this point, Emily starts ignoring E, who asks for the child's help, as shown below.

E:(talking to Emily) ***LANCI-A, EMILY!***

'**THROW-IMP.2.SG, EMILY!**'

Emily, voiced and moved by E, refuses to act upon Peppa and says "no".

E: *Mammamia, la Emily non mi ubbidisce.*

'Goodness me, Emily is not obeying me.'

E: *Prova a dirglielo tu di **LANCI-ARE**.*

'YOU try telling her to **THROW-INF**.'

E:*Dille, **LANCI-A, EMILY! LANCI-A, EMILY!***

'Tell her "**THROW-IMP.2.SG, EMILY! THROW-IMP.2.SG, EMILY!**"

At this point the child orders Emily to act upon Peppa three times. Each time E makes the toys perform the target action, as shown below.

CHILD: (talking to Emily) ***LANCI-A, EMILY!***

'**THROW-IMP.2.SG, EMILY!**'

E makes Emily act upon Peppa.

CHILD: (talking to Emily) ***LANCI-A, EMILY!***

**‘THROW-IMP.2.SG, EMILY!’**

E makes Emily act upon Peppa.

CHILD: (talking to Emily) *LANCI-A, EMILY!*

**‘THROW-IMP.2.SG, EMILY!’**

E makes Emily act upon Peppa.

## **2.5. SECOND ELICITATION (optional, Experimental Phase only).**

Silvia wakes up and E draws the child’s attention to this.

E: *Oh, guarda, Silvia si è svegliata!*

‘Oh, look, Silvia woke up.’

Silvia approaches and greets the child and then asks him/her:

SILVIA: (talking to the child) *CHILD’S NAME, mi dici cosa ha fatto la Emily?*

‘CHILD’S NAME, can you tell me what Emily did?’

SILVIA: (talking to the child) *che cosa ha fatto la Emily?*

‘What did Emily do?’

If the child provides an answer, E compliments, thanks and high-fives the child. The answer is coded for both morphology and syntax as “not productive”, “other”, or “productive”. The game then moves on to the “in-between verbs phase (B.6)”.

If the child does not provide an answer (or uses a verb other than the target verb), E codes the answer as “other” and moves on to another verb trial. When this happens, Silvia wakes up and E attempts to explain what happened. However, the mole falls asleep before he can finish his sentence and then the game moves on to the “in-between verbs phase (B.6)”.

E: (talking to Silvia) *Silvia, è successo che +//.*

‘Silvia, it happened that +//.’

Silvia falls asleep.

## **2.6. IN-BETWEEN VERBS**

Silvia falls asleep.

E: *Ma hai visto?!*

‘Have you seen!?’

E: *Questa si è addormentata ancora!*

‘She fell asleep, again!’

E: *Vabbè, dai, lasciamola dormire!*

‘Oh well, let’s let her sleep!’

E: *Hai voglia di fare un altro gioco e poi quando Silvia si sveglia, tu le spieghi ancora cosa è successo?*

‘Do you want to play another game and then, when Silvia wakes up, you explain to her again what happened?’

If the child say yes, E adds the following:

E: *Ma sei proprio gentile, sai.*

‘You’re really kind, you know.’

E: *Grazie.*

‘Thank you.’

The games moves on to another verb-action pair and re-starts from the Introduction

## **3. VARIATION IN EXPOSURE TO TARGET VERBS**

Throughout the *Presentation* part of the individual session, children were exposed to eleven or twelve imperative forms of the target verb and to nine instances of its infinitive form. They further uttered one infinitive and at least five IMP.2.SG forms of the target verb.

However, if the child got distracted or wanted to play other games, E would go along with this and the game would be put on hold for a few minutes until the child was willing to engage with the task again.

The game would then re-started at the beginning of the particular block that had been interrupted. So, if the child started to be unresponsive halfway through block\_2, once s/he had been brought back on the task, the study would re-start from the beginning of block\_2. This procedure was necessary with some younger children.

Consequently, those children who got distracted halfway through the study were exposed to more instances of the target verbs than those children who carried out the task without interruptions.