



# CEGS: An Elicitation Took Kit for Studies on Case Marking and its Acquisition

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# **CEGS: An Elicitation Took Kit for Studies on Case Marking and its Acquisition**

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## **Abstract**

This paper presents a set of Case Elicitation Games and Stimuli (CEGS). The aim of this elicitation tool kit is to encourage speakers to produce a broad range of case-marked forms in a variety of different syntactic contexts, including subjects, direct and indirect objects, prepositional phrases and noun phrases that are not selected by a verb or preposition. The games involve two tasks - the Puzzle Task and the Picture-Pairing Task (Eisenbeiss 2009, 2010). Both tasks are semi-structured and involve flexible procedures and an informal interactional setting. The same target words are used in different games and syntactic contexts, which allows for cross-context and cross-method comparisons. CEGS was designed to provide rich semi-naturalistic speech samples of speakers from the age of two years. It can complement spontaneous speech sampling and controlled experiments on the use and comprehension of case marking; and the games are particularly effective for children that are too young to take part in controlled production experiments on case acquisition. The picture stimuli described in this paper were designed for studies involving German children, but we will discuss how tasks and stimuli can be adapted to other languages or adult participants, and to speech therapy or language documentation contexts.

## **1. Overview**

Studies on children's acquisition of case marking employ a wide variety of methods (Behrens 2008, Blom and Unsworth 2010, Eisenbeiß 2006, 2009, Eisenbeiss et al. 1994, Menn and Bernstein Ratner 2000, McDaniel et al. 1996, Wei and Moyer 2008). The two most common of them are (i) controlled experiments with standardised procedures and stimulus materials and (ii) spontaneous speech sampling, where children are audio/video-recorded in everyday situations (e.g. free play, dinner conversation, picture book reading). However, experiments that require children to produce case-markers in controlled settings are often too challenging for children in the crucial stages of case-development, i.e. around the age of two to three years. At the same time, spontaneous speech samples often do not provide sufficient samples for each case context or for each case-marked form that the researcher wants to investigate (see Eisenbeiss 2003, 2009,

2010, Menn and Bernstein Ratner 2000, McDaniel et al. 1996). Semi-structured elicitation can address these problems and complement experiments and spontaneous speech sampling (see e.g. Eisenbeiss 2009, 2010, Eisenbeiss et al. 1994, Neokleous 2010, and elicitation tasks described in the field manuals of the Max-Planck-Institute for Psycholinguistics: <http://fieldmanuals.mpi.nl/>). Semi-structured elicitation tasks keep the communicative situation as natural as possible, but games, pictures, videos, etc. are employed to encourage the production of rich and comparable spoken speech samples. With adaptations of materials and tasks, such games can also be used (i) for diagnosis and treatment in speech therapy, (ii) in studies on multilingualism and second language learning, and (iii) in projects that document endangered languages (see e.g. Eisenbeiss 2006, 2009, 2010, Eisenbeiss and McGregor 1999, Neokleous 2010, <http://fieldmanuals.mpi.nl/>).

In the following, I will present the Case Elicitation Games and Stimuli (CEGS), a set of tasks and picture stimuli for studies on case-marking. This elicitation tool kit was designed to encourage speakers to produce a broad range of case-marked forms in a variety of different contexts. It was initially developed for studies on the first language acquisition of German case, but modified versions of the tasks and stimuli involved were also used or piloted with children learning other languages and with adult second language learners (see e.g. Eisenbeiss and Matsuo 2005, Neokleous 2010). All of the tasks and stimuli described below were employed in the collection of the Eisenbeiss elicitation corpus, which was funded by the Max-Planck-Society and took place within the Acquisition Group of the Max-Planck-Institute for Psycholinguistics, headed by Prof. Wolfgang Klein. An overview of the entire Eisenbeiss elicitation corpus and meta-data for individual recordings can be found here: [http://corpus1.mpi.nl/ds/imdi\\_browser/MPI corpora > Acquisition > L1 Acquisition > S. Eisenbeiss > S. Eisenbeiss corpus 1](http://corpus1.mpi.nl/ds/imdi_browser/MPI_corpora%20>Acquisition%20>L1_Acquisition%20>S._Eisenbeiss%20>S._Eisenbeiss_corpus_1).

The CEGS comprises 13 games in total, four involving the Picture-Pairing Task and nine involving the so-called Puzzle Task. These two semi-structured elicitation tasks were developed on the basis of existing traditional games (Eisenbeiss 2009, 2010, Eisenbeiss et al. 2009). The picture stimuli for the elicitation tasks are designed to cover a broad range of case contexts and case-marked forms. Tab.1. gives an overview of the targeted case contexts. Tab.2 shows the target constructions and verbs for the individual games.

**Tab. 1: List of Elicited Case Contexts**

Case	Context	Description	Example
NOM	SUB	nominative subject	<i>Der Mann</i> gibt dem Bären den Honig(topf). ‘ <b>The man</b> is giving the bear the honey(pot).’
	PRED	predicative nominative noun phrase	<i>Das ist ein/der Mann.</i> ‘That is <b>a/the man</b> .’
ACC	DO	direct accusative object	<i>Der Mann</i> gibt dem Bären <b>den Honig</b> (topf). ‘The man is giving the bear <b>the honey (pot)</b> .’
	PP	accusative complement of a preposition	... <i>auf den Rücken</i> . ‘... <b>on the back</b> ’
	IO	indirect dative object of a three-place verb	<i>Der Mann</i> gibt <b>dem Bären</b> den Honig(topf). ‘The man is giving <b>the bear</b> the honey (pot).’
DAT	DO	dative object of a two-place verb	<i>Der Honig</i> schmeckt <b>dem Bären</b> . ‘The honey tastes good <b>to the bear</b> .’
	PP	dative complement of a preposition	... <i>mit dem Helm</i> . ‘... <b>with the helmet</b> ’
	EXT	“extra” dative argument	<i>Der Junge</i> legt <b>dem Pferd</b> den Sattel auf den Rücken. The boy is putting <b>the horse</b> the saddle on the back ‘The boy is putting the saddle on the horse’s back’

**Tab.2: Overview of Semi-Structured Elicitation Tasks and Primary Elicitation Targets**  
(see Tab.1 for Abbreviations)

			NOM		ACC		DAT			
Game	Construction / Verb Type	Verb	SUB	PRED	DO	PP	IO	DO	PP	EXT
Picture-pairing	two-place dative verb of possession	<i>gehören</i> ‘belong’	+	(+)				+	(+)	
	two-place dative verb of experience	<i>schmecken</i> ‘taste’	+	(+)	(+)			+	(+)	
	two-place dative verb of social interaction	<i>helfen</i> ‘help’	+	(+)				+	(+)	
	two-place dative verb of social interaction	<i>winken</i> ‘wave’	+	(+)				+	+	
Puzzle	two-place dative verb of possession	<i>gehören</i> ‘belong’	+	(+)				+	(+)	
	two-place dative verb of experience	<i>schmecken</i> ‘taste’	+	(+)	(+)			+	(+)	
	two-place dative verb of social interaction	<i>helfen</i> ‘help’	+	(+)				+	(+)	
	two-place dative verb of social interaction	<i>winken</i> ‘wave’	+	(+)				+	(+)	
	three-place verb	<i>geben</i> ‘give’	+	(+)	+		+		(+)	
	three-place verb	<i>zeigen</i> ‘show’	+	(+)	+		+		(+)	
	“extra” dative with SUB and PP	<i>beissen</i> ‘bite’	+	(+)		+			(+)	+
	“extra” dative with SUB and ACC-DO	<i>waschen</i> ‘wash’	+	(+)	+				(+)	+
	“extra” dative with SUB, ACC-DO, and PP	<i>legen</i> ‘put’	+	(+)	+	+			(+)	+

As described below, the elicitation tasks are semi-structured; they target particular constructions or verbs, but also give children the freedom to produce other types of utterances. Brackets are used for case contexts that are not specifically targeted by the picture-materials, but tend to occur frequently in the course of the game, due to the nature of the elicitation task. In particular, all games start with an introductory phase in which children name all people, animals and objects involved in the game, using predicative constructions with a predicative nominative noun phrase, e.g. *Das ist...* ‘This is ...’. Moreover, while they are describing the pictures on the puzzle pieces and cards, children occasionally say “the X on the picture/card/puzzle piece” or “the picture/card/puzzle piece with the X”, using a dative prepositional phrase. In the games with the verbs *helfen* ‘help’ and in the picture-pairing game for *winken* ‘wave’, the agents in the picture use various instruments to help or wave to others (see Fig 2. below). This encourages the use of prepositional phrases with the dative-assigning preposition *mit* ‘with’. Finally in the two games with the target verb *schmecken* ‘taste’, children frequently use the words *mögen* ‘like’ and *(fr)essen* ‘eat’, which require a nominative subject and a direct accusative object.

While each game targets a particular verb, the games encourage children to produce sentences with other (similar) verbs as well. For instance, in the game with the target two-place dative verb *gehören* ‘belong’, children frequently use *passen* ‘fit’, a two-place dative verb with similar argument structure and case-marking properties; and in the *waschen* ‘wash’ game, children also often use other verbs with similar argument structure and case-assignment properties (e.g. *saubermachen* ‘make clean’ or *putzen* ‘clean’). This combination of a primary target verb and construction with other production opportunities offers lexical and constructional variety for analyses of case-marking. Moreover, four two-place verbs and constructions are targeted by both the puzzle task and the picture-pairing task. This provides converging evidence from different tasks. Note that one cannot easily use the picture-pairing task for constructions with more than two arguments as this task is aimed at two-place constructions. For adults, a picture-triple version with one picture for each of the three argument noun phrases might be an option, but for young children this seemed too confusing. The two tasks and the respective stimuli are presented in more detail below.

In addition to targeting different case contexts, the CEGS tool kit also encourages children to use different genders as well as different types of case-marked forms. In the introduction phase, where the people, animals and objects depicted are described and labeled, children use

predominantly noun phrases with indefinite determiners. Later, they typically use personal pronouns or noun phrases with definite determiners. In addition, the tasks involving “extra” datives and dative verbs of possession encourage the use of possessive pronouns. The acquisition of case-marking on German nouns has not been studied in great detail so far – mainly because spontaneous speech samples only contain very few utterances with contexts for accusative and dative markers on nouns (see Eisenbeiss 2003, Eisenbeiss et al. 2005/6, Indefrey 2002, Stephany and Voeikova 2007 for overviews). Hence, the CEGS toolkit targets a variety of nouns that require the addition of *-(e)n* in dative plural contexts (e.g. *Schuh*<sub>NOM.SG</sub> vs. *Schuh-e*<sub>PL-n</sub><sub>DAT</sub> ‘shoe’ vs. ‘shoes’, *Kind*<sub>NOM.SG</sub> vs. *Kind-er*<sub>PL-n</sub><sub>DAT</sub> ‘child’ vs. ‘children’; *Igel*<sub>NOM.SG</sub> vs. *Igel-0*<sub>PL-n</sub><sub>DAT</sub>, ‘hedgehog’ vs. ‘hedgehogs’, *Vogel*<sub>NOM.SG</sub> vs. *Vögel*<sub>PL-n</sub><sub>DAT</sub> ‘bird’ vs. ‘birds’). The CEGS toolkit also targets several so-called weak masculine nouns that take *-(e)n* in accusative/dative.singular contexts (e.g. *Bär*<sub>NOM.SG</sub> vs. *Bär-en*<sub>ACC/DAT.SG</sub> ‘bear’, *Junge*<sub>NOM.SG</sub> vs. *Junge-n*<sub>ACC/DAT.SG</sub> ‘boy’). In the picture-pairing games, card pairs with different colours are used; and in some games, animals of unusual colours (e.g. a red bear) or different sizes are contrasted. This encourages the use of case-marked adjectives.

The CEGS toolkit was designed so that most nouns appear in more than one case context and in more than one game, allowing for cross-context and cross-method comparisons. This can be seen in the item-lists provided in Tab.3-11 below. For instance, the man, the woman and the baby or child appear as agents in various games eliciting two-place and three-place verbs and constructions and as dative arguments of the verbs *gehören* ‘belong’ and *helfen* ‘help’. Similarly, the games encourage children to use the nouns *Katze* ‘cat’, *Bär* ‘bear’ and *Schaf* ‘sheep’ as dative experiencers in the *schmecken* ‘taste’ puzzle and as dative indirect objects in the *geben* ‘give’ puzzle. Moreover, the cat is also the affected animal in the *legen* ‘put’ and the *waschen* ‘wash’ puzzle.

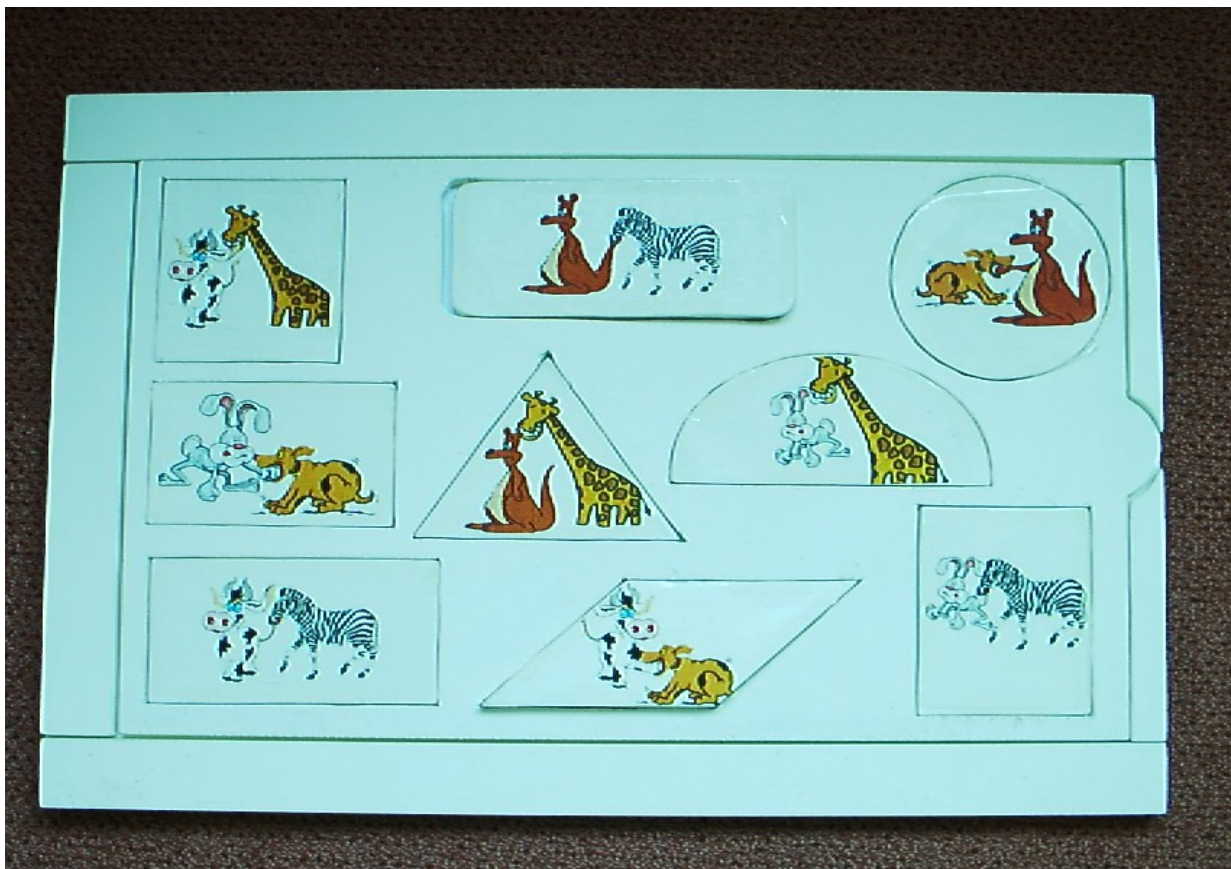
Taken together, CEGS allows researchers to obtain a semi-naturalistic data set that covers a broad range of case-marked contexts and case-marked forms and allows us to compare (i) the same case-marked element in different contexts and (ii) different case-marked elements in the same context. Moreover, the combination of two games enables researchers to evaluate the effectiveness, validity and reliability of our elicitation tasks and to obtain converging evidence from different tasks. For earlier evaluations of semi-structured elicitation tasks see e.g. Eisenbeiss 2003, 2009.



## 2. The Puzzle Task

The puzzle task is a variant of so-called director-matcher or confederate description tasks (see Eisenbeiss 2010 for references and discussion). In the puzzle task, children see a puzzle with pictures in cut-outs; and they are encouraged to ask for puzzle pieces with corresponding pictures that they could put into the respective cut-outs (Eisenbeiss 2009, 2010, Eisenbeiss et al. 2009, Eisenbeiss and Matsuo 2005, Eisenbeiss et al. 2010, Neokleous 2010). The CEGS involves puzzles with 9 pictures that contrast minimally with respect to the participants involved. Hence, children must mention each of these participants to uniquely identify the picture. Fig.1 shows the puzzle board with the pictures for the target verb *beissen* 'bite'.

**Fig. 1: The Puzzle Game for the Target Verb *Beissen* 'Bite'**



Children are first given the chance to look at the pictures on the puzzle board and discuss what they see. At this stage, the researcher introduces the target verb and points out the differences

with respect to the participants of the depicted events. However, the researcher does not model the target construction. For instance, for the puzzle shown in Fig.1, the researcher would say something like *Bei diesen Bildern geht's immer ums Beissen, aber du mußt immer ganz genau hinschauen*. 'These pictures are all about biting, but you have to look really carefully'. If children do not mention all relevant participants, the researcher will point to a picture where the action and one of the participants are identical and point out that something is different and that the child must really look closely at the picture to describe the right one.

After children have seen all pictures, they can ask the researcher for the puzzle pieces, describing each piece they want. If children do not provide a full sentence with the target verb or do not attempt to produce the target construction, researchers ask for more information, for instance pointing out that they do not know where a particular animal was bitten. To keep the play situation as natural as possible and to minimize task effects, researchers do not follow a strict procedure. Children are allowed to ask questions, describe pictures more than once, discuss pictures or talk about other things. However, it is crucial to insist that (i) children name all event participants and (ii) describe each picture at least once using the appropriate verb.

The people, animals and objects depicted on the puzzle pieces for the CEGS toolkit were selected so that for each argument type, children would have to use nouns of all three German genders. The only exception to this is the *legen* 'put' game, which involves a subject, an object, a prepositional argument and an "extra" dative argument. For this game, having gender variation for more than two event participants would have led to a larger picture set or to pictures that did not differ minimally from one another. Hence, for the nominative subject and the accusative prepositional phrase only masculine target nouns were selected. Masculine was chosen as this is the only gender with three distinct forms for nominative, accusative and dative. We did not include any pictures with groups of people, animals or objects to elicit plural forms. However, due to the nature of the contrasting picture sets, there are always several entities of the same type and children can talk about them when they discuss the similarities and differences between individual pictures.

The target nouns for the 9 puzzle games listed in Tab.2 are presented in Tab.3-11. These tables provide gender information for each target noun and alternative nouns that children might use. So-called weak masculine nouns that take the accusative/dative singular marker *-(e)n* are underlined, while nouns that take *-(e)n* as a dative plural marker appear in bold face. Note that

feminine and neuter nouns never exhibit case affixes in accusative or dative singular and that weak masculine nouns take the plural ending *-(e)n* in all cases and hence do not show a distinct dative plural marker.

**Tab.3: Puzzle Stimuli for a Two-Place Dative Verb of Possession – *gehören* ‘belong’**

	Possessum	Possessor
	NOM-SUB	DAT-DO
Masc.	<i>Schuh</i> ‘shoe’	<i>Mann</i> ‘man’
Fem.	<i>Hose</i> ‘trousers’	<i>Frau</i> ‘woman’
Neut.	<i>Laetzchen</i> ‘bib’	<i>Baby/Kind</i> ‘baby/child’

**Tab.4: Puzzle Stimuli for a Two-Place Dative Verb of Experience – *schmecken* ‘taste’**

	Stimulus	Experiencer
	NOM-SUB	DAT-DO
Masc.	<i>Honig(topf)</i> ‘honey (pot)’	<i>Bär</i> ‘bear’
Fem.	<i>Maus</i> ‘mouse’	<i>Katze</i> ‘cat’
Neut.	<i>Gras</i> ‘grass’	<i>Schaf</i> ‘sheep’

**Tab.5: Puzzle Stimuli for a Two-Place Dative Verb of Social Interaction – *helfen* ‘help’**

	Agent	Theme
	NOM-SUB	DAT-DO
Masc.	<i>Elefant</i> ‘elephant’	<i>Mann</i> ‘man’
Fem.	<i>Giraffe</i> ‘giraffe’	<i>Frau</i> ‘woman’
Neut.	<i>Känguruh</i> ‘kangaroo’	<i>Baby/Kind</i> ‘baby/child’

**Tab.6: Puzzle Stimuli for a Two-Place Dative Verb of Social Interaction – *winken* ‘wave’**

	Agent	Theme/Goal
	NOM-SUB	DAT-DO
Masc.	<b><i>Igel</i> ‘hedgehog’</b>	<b><i>Fisch</i> ‘fish’</b>
Fem.	<b><i>Maus</i> ‘mouse’</b>	<i>Schildkröte</i> ‘tortoise’
Neut.	<i>Zebra</i> ‘Zebra’	<b><i>Nilpferd</i> ‘hippo’</b>

**Tab.7: Puzzle Stimuli for a Three-Place Verb – *geben* ‘give’**

	Agent	Theme	Goal
	NOM-SUB	ACC-DO	DAT-IO
Masc.	<b><i>Mann</i> ‘man’</b>	<b><i>Honig(topf)</i> ‘honey (pot)’</b>	<u><i>Bär</i> ‘bear’</u>
Fem.	<i>Frau</i> ‘woman’	<b><i>Maus</i> ‘mouse’</b>	<i>Katze</i> ‘cat’
Neut.	<i>Baby</i> ‘baby’	<b><i>Gras</i> ‘grass’</b>	<i>Schaf</i> ‘sheep’

**Tab.8: Puzzle Stimuli for a Three-Place Verb – *zeigen* ‘show’**

	Agent	Theme	Goal/
	NOM-SUB	ACC-DO	DAT-IO
Masc.	<b><i>Mann</i> ‘man’</b>	<b><i>grosser Pinguin</i> ‘big penguin’</b>	<b><i>kleiner Pinguin</i> ‘little penguin’</b>
Fem.	<i>Frau</i> ‘woman’	<i>grosse Schnecke</i> ‘big snail’	<i>kleine Schnecke</i> ‘little snail’
Neut.	<i>Mädchen</i> ‘girl’	<i>grosses Nilpferd</i> ‘big <b>hippo</b> ’	<i>kleines Nilpferd</i> ‘little <b>hippo</b> ’

**Tab.9: Puzzle Stimuli for “Extra” Dative with Subject and Prepositional Phrase –  
*beissen* ‘bite’**

	Agent	Beneficiary/Maleficiary	Affected Bodypart
	NOM-SUB	DAT-EXT (or: ACC-DO)	ACC-PP
Masc.	<b><i>Hund</i></b> ‘dog’	<u><i>Hase</i></u> ‘hare’	<b><i>Schwanz</i></b> ‘tail’ ( <i>Fuß</i> ‘foot’)
Fem.	<i>Giraffe</i> ‘giraffe’	<b><i>Kuh</i></b> ‘cow’	<i>Pfote</i> ‘paw’
Neut.	<i>Zebra</i> ‘dog’	<i>Känguruh</i> ‘kangaroo’	<i>Ohr</i> ‘ear’ ( <i>Bein</i> ‘leg’)

**Tab.10: Puzzle Stimuli for “Extra” Dative with Subject and Accusative Object –  
*waschen* ‘wash’**

	Agent	Beneficiary/Maleficiary	Affected Bodypart
	NOM-SUB	DAT-EXT	ACC-DO
Masc.	<b><i>Mann</i></b> ‘man’	<b><i>Hund</i></b> ‘dog’	<b><i>Schwanz</i></b> ‘tail’ ( <i>Fuß</i> ‘foot’)
Fem.	<i>Frau</i> ‘woman’	<i>Katze</i> ‘cat’	<i>Pfote</i> ‘paw’
Neut.	<i>Mädchen</i> ‘girl’	<i>Känguruh</i> ‘kangaroo’	<b><i>Gesicht</i></b> ‘face’ ( <i>Bein</i> ‘leg’)

**Tab.11: Puzzle Stimuli for “Extra” Dative with Subject, Accusative Object,  
and Prepositional Phrase - *legen* ‘put’**

	Agent	Affected Animal	Body Part	Moved Object
	NOM-SUB	DAT-EXT	ACC-PP	ACC-DO
Masc.	<u><i>Junge</i></u> ‘boy’	<u><i>Affe</i></u> / <i>Gorilla</i> ‘ape/ gorilla’	Rücken ‘back’, <b>Kopf</b> ‘head’, <b>Hals</b> ‘neck’, <b>Bauch</b> ‘tummy’, <b>Schwanz</b> , ‘tail’	<b><i>Sattel</i></b> ‘saddle’, <b><i>Hut</i></b> ‘hat’
Fem.	-	<i>Katze</i> ‘cat’		<i>Leine</i> ‘leash’
Neut.	-	<b><i>Pferd</i></b> ‘horse’		<b><i>Halsband</i></b> ‘collar’

### 3. The Picture-Pairing Task

In the picture-pairing task, two participants (two children or one child with the researcher) sit down with a set of picture cards that are lying face down. The participants take turns turning pairs of cards over. When the pictures on the uncovered cards match in colour and according to the world knowledge of the player, the player can keep the two matching cards and get another turn, until all cards are paired. See Fig.2 for some sample pictures for the target verb *helfen* 'help'.

**Fig.2: Some Picture Pairs for the Target Verb *helfen* 'help'**



In the traditional “Memory” version of this game, non-matching cards are turned over again and players have to memorise the position of cards that have already been turned around and might be a match for cards that are turned around at a later point. Procedures in the CEGS toolkit are flexible to keep task demands low. Here, children can leave the cards “face up”. Thus, the task can be played in different variants, adapted to the individual child’s attention level and memory capacity. However, all children are asked to produce utterances with the components shown on the pairs of cards they have turned over. For instance, the two cards for the target sentence *The sheep is helping the hairdresser*, show a hairdresser with a pair of scissors and a sheep with a pair of scissors. When the cards do not match, children are encouraged to produce a negated sentence with the same word; e.g. *Die Kuh hilft dem Friseur nicht* ‘The cow does not help the hairdresser’. As in the puzzle task, target verbs are introduced in infinitive form at the start of the play session; for instance *Bei den Bildern hier geht es immer ums Helfen*. ‘All of these pictures are about helping’. Later prompts follow a similar format and do not provide models of the target sentences. However, as the game is a two-player game, each child might hear the relevant constructions from the researcher or another child – though with another noun. Recall that each of the verbs that appears in the picture-pairing games of the CEGS toolkit is also targeted in a puzzle game, where no models are provided. Hence, the combination of the puzzle game and the picture-pairing game results allows us to compare results of the two games and to investigate whether and how children make use of such models. Initial results demonstrate that children do not simply imitate models, but produce non-target-like forms that reflect their linguistic knowledge even when models are provided. This suggests that the informal communicative setting helps to avoid strategy and imitation effects.

As in the puzzle game, children can first familiarize themselves with the picture cards, which typically results in naming and descriptions with nominative predicative noun phrases or prepositional phrases.

Tab.12-15 show the target nouns for the individual picture-pairing games. As for the puzzle task items in Tab.3-11, weak masculine nouns that take the accusative/dative singular marker – *(e)n* are underlined, while nouns that take –*(e)n* as a dative plural marker appear in bold face. Note that for the *gehören* ‘belong’ game in Tab.12, some additional items are used so that children do not see 9 pairs of pictures, but 11. This allowed us to include some “challenging”

items that some of children might know (*Geweih*, *Schleife*) and still ensure that all genders are covered by several items.

**Tab.12: Picture-Pairing Stimuli for a Two-Place Dative Verb of Possession –  
*gehören* ‘belong’**

Possessum NOM-SUB		Possessor DAT-DO	
Masc.	<i>Helm</i> ‘helmet’	Masc.	<i>Mann/Motorradfahrer</i> ‘man/motorbiker’
	<i>Hut</i> ‘hat’	Fem.	<i>Hexe</i> ‘witch’
	<i>Sattel</i> ‘saddle’	Neut.	<i>Pferd</i> ‘horse’
Fem.	<i>Leine</i> ‘leash’	Masc.	<i>Hund</i> ‘dog’
	<i>Kette</i> ‘necklace’	Masc.	<i>Indianer</i> ‘native American’
	<i>Krone</i> ‘crown’	Fem.	<i>Prinzessin</i> ‘princess’
	<i>Schleife</i> ‘bow’	Neut.	<i>Mädchen</i> ‘girl’
Neut.	<i>Geweih</i> ‘set of antlers’	Masc.	<i>Hirsch</i> ‘deer’
	<i>Gebiss</i> ‘dentures’	Fem.	<i>Oma/Grossmutter</i> ‘granny/grandmother’
	<i>Haus</i> ‘house’	Fem.	<i>Schnecke</i> ‘snail’
	<i>Lätzchen</i> ‘bib’	Neut.	<i>Baby/Kind</i> ‘baby/child’



**Tab.13: Picture-Pairing Stimuli for a Two-Place Dative Verb of Experience –  
*schmecken* ‘taste’**

Stimulus NOM-SUB		Experiencer DAT-DO	
Masc.	<i>Knochen</i> ‘bone’	Masc.	<b><i>Hund</i></b> ‘dog’
	<b><i>Käse</i></b> ‘cheese’	Fem.	<b><i>Maus</i></b> ‘mouse’
	<i>Apfel</i> ‘apple’	Neut.	<b><i>Schwein</i></b> ‘pig’
Fem.	<i>Banane</i> ‘banana’	Masc.	<u><i>Affe/Chimpanse</i></u> ‘ape/chimpanse’
	<i>Blume</i> ‘flower’	Fem.	<b><i>Kuh</i></b> ‘cow’
	<i>Möhre</i> ‘carrot’	Neut.	<b><i>Pferd</i></b> ‘horse’
Neut.	<i>Fleisch</i> ‘meat’	Masc.	<b><i>Tiger</i></b> ‘tiger’
	<b><i>Brot</i></b> ‘bread’	Fem.	<i>Ente</i> ‘duck’
	<b><i>Gras</i></b> ‘grass’	Neut.	<b><i>Schaf</i></b> ‘sheep’

**Tab.14: Picture-Pairing Stimuli for a Two-Place Dative Verb of Social Interaction –  
*helfen* ‘help’**

Agent NOM-SUB		Theme DAT-DO	
Masc.	<u><i>Bär</i></u> ‘bear’	Masc.	<b><i>Mann/Junge</i></b> ‘man/boy’
	<u><i>Affe</i></u> ‘ape’	Fem.	<i>Frau</i> ‘woman’
	<b><i>Hund</i></b> ‘dog’	Neut.	<i>Mädchen/Kind</i> ‘girl/child’
Fem.	<i>Katze</i> ‘cat’	Masc.	<b><i>Mann/Junge</i></b> ‘man/boy’
	<b><i>Kuh</i></b> ‘cow’	Fem.	<i>Frau</i> ‘woman’
	<i>Schnecke</i> ‘snail’	Neut.	<i>Mädchen/Kind</i> ‘girl/child’
Neut.	<b><i>Schaf</i></b> ‘sheep’	Masc.	<b><i>Mann/Friseur</i></b> ‘man/hairdresser’
	<b><i>Pferd</i></b> ‘horse’	Fem.	<i>Frau</i> ‘woman’
	<i>Känguruh</i> ‘kangaroo’	Neut.	<i>Mädchen/Kind</i> ‘girl/child’

**Tab.15: Picture-Pairing Stimuli for a Two-Place Dative Verb of Social Interaction –  
*winken* ‘wave’**

Agent NOM-SUB		Theme DAT-DO		Instrument DAT-PP	
Masc.	<u>Bär</u> ‘bear’	Masc.	<b>Mann/cook</b> ‘man/cook’	Masc.	<b>Löffel</b> ‘spoon’
	<b>Vogel</b> ‘bird’	Fem.	<i>Oma</i> ‘grandma’	Fem.	<i>Rose</i> ‘rose’
	<i>Dinosaurier/</i> <i>Drachen</i> ‘dinosaur/ dragon’	Neut.	<i>Baby/Kind</i> ‘baby/child’	Neut.	<i>Fähnchen</i> ‘flag’
Fem.	<b>Kuh</b> ‘cow’	Masc.	<i>(Feuerwehr)Mann/</i> ‘(fire) man’	Masc.	<b>Helm</b> ‘helmet’
	<i>Biene</i> ‘bee’	Fem.	<i>Prinzessin</i> ‘princess’	Fem.	<i>Krone</i> ‘crown’
	<b>Gans</b> ‘goose’	Neut.	<i>Mädchen/Kind</i> ‘girl/child’	Neut.	<b>Buch</b> ‘book’
Neut.	<i>Känguruh</i> ‘kangaroo’	Masc.	<i>Opa</i> ‘granddad’	Masc.	<b>Stock</b> ‘stick’
	<b>Schwein</b> ‘pig’	Fem.	<i>Frau/ Tänzerin</i> ‘woman/dancer’	Fem.	<i>Kette</i> ‘necklace’
	<b>Huhn</b> ‘chicken’	Neut.	<b>Gespent</b> ‘ghost’	Neut.	<b>Geschenk</b> ‘present’

#### 4. Adaptations and Uses of the Case Elicitation Games and Stimuli (CEGS)

So far, the tasks presented here have been used with children from 2-6 learning a variety of languages (see e.g. Eisenbeiss 2009, Eisenbeiss and Matsuo 2005, Neokleous 2010). However, initial piloting has shown that the picture-pairing task can be played with adults without major adaptations. For adults, who might find playing puzzles too childish, the puzzle task can be played as a slightly different type of director-matcher task (see Eisenbeiss 2009, 2010 for discussion of such tasks). The pictures are not placed on the puzzle board and the puzzle pieces. Rather, one can give one set of pictures to the speaker one wants to elicit data from, i.e. the target

speaker. A copy of the picture set is given to the researcher or a collaborator, who cannot see the target speaker's picture set. The target speaker's picture set has a different marker or a number on each picture. The task of the speaker is to describe which mark/number is on which picture so that the researcher/collaborator can place the appropriate markers/numbers in the correct positions on his/her own picture set. To make this more engaging and challenging, this game can be played with two speaker-researcher teams, each trying to finish first.

In speech therapy contexts, the games and stimuli can either be used to obtain speech samples for assessment or they can be used to encourage the speaker to produce speech, with appropriate modeling and feedback. Researchers or speech therapists who are interested in collaborative or comparative projects can obtain the original pictures by getting in touch with the author: seisen@essex.ac.uk.

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