Table S1. *Hours of teaching (expressed in raw numbers and percentage) dedicated to each language for each school from which we recruited the participants*

GROUP	SCHOOL LOCATION	NUMBER OF TEACHING HOURS IN GREEK	NUMBER OF TEACHING HOURS IN THE OTHER LANGUAGE
Greek-Albanian	Tirana	23/38 (61%)	15/38 (39%)
Greek-English	London	20/25 (80%)	5/25 (20%)
	Charlotte	10/35 (29%)	25/35 (71%)
Greek-German	Cologne	3/31 (10%)	28/31 (90%)
	Krefeld	8/28 (29%)	20/28 (71%)
	Düsseldorf	21/31 (68%)	10/31 (32%)

Table S2. *Standardized ß-coefficients, p-values and multicollinearity diagnostics (Variance Inflection Factor – VIF) for all independent variables in the multiple linear regression model with difference in vocabulary scores as dependent variable. A value of 3 for VIF was chosen as cutoff point for multicollinearity (Kothari 2015)*.

VARIABLE	STANDARDIZED ß-COEFFICIENTS	p	VIF
Home language history	.30	.003	1.61
Early literacy	.17	.09	1.60
Current language use	.07	.54	2.16
Current literacy**	.22	.23	1.50

* The results reported in Table S2 are based on the following model:

m0 <- lm (difference_vocabulary ~ difference_home_history + difference_early_literacy + difference_language_use + difference_current_literacy, data = dominance)

** Given that the children in the present study were exposed to different bilingual educational settings (Table S1), we calculated the score related to the amount of current literacy exposure as the average between the difference score corresponding to the current-literacy module of the questionnaire and the difference between the proportion of hours of teaching in Greek and in the other language, respectively. For example, let us suppose that in the current-literacy module, a child obtained 4 points in Greek and 5 points in German over a total score of 9 points (i.e., .44 and .56, respectively, once the ratio between the language-specific score and the total score of the module is calculated). Her dominance score in current literacy is the difference between the score in Greek (.44) and the score in German (.56), which equals -.12. Let us assume now that the same child attends the school in Krefeld, in which 8 hours (over 28, corresponding to a ratio of .29) are dedicated to Greek, while 20 hours are dedicated to German (corresponding to a ratio of .71; see Table S1). The difference between the two ratios corresponds to -.42. The final score of the module related to current literacy is the average between these two partial scores, -.12 and -.42, which equals -.33.

Table S3. *Descriptive statistics related to the index of language experience (ILE in the Table) for each language combination, dividing the children according to dominance in Greek or in the other language (Albanian, English, German)*

GROUP	DOMINANCE	MINIMUM_ILE	MAXIMUM_ILE	MEAN_ILE	SD_ILE
Greek-Albanian	Greek-dominant (N: 8)	.04	.28	.15	.09
	Albanian-dominant (N: 16)	-.57	-.01	-.23	.20
Greek-English	Greek-dominant (N: 9)	.01	.21	.12	.08
	English-dominant (N: 40)	-.66	-.05	-.24	.17
Greek-German	Greek-dominant (N: 28)	.02	.40	.18	.10
	German-dominant (N: 24)	-.55	-.01	-.22	.15

Table S4. *Example of coding of referring expressions. The story is told by a Greek-German bilingual child (CH183; M; age: 11;2; ILE: -.35) Units containing more than one referring expressions are repeated as many times as the number of referring expressions they contain. Reference to the dog girl is marked in bold and to the rabbit boy in italics*

N_UNIT	UNIT	CHAIN	TYPE	GRAMM	ANT-GRAMM	CHARACTERS
U1	Edó ítan **mía skilítsa** ke énas lagós. [*There was a dog and a rabbit*]	1	INDEF	SUBJ	INTRO	INTRO
U1	Edó ítan mía skilítsa ke *énas lagós* [*There was a dog and a rabbit*]	2	INDEF	SUBJ	INTRO	INTRO
U2	*O lagós* íde to balóni [*The rabbit saw the balloon*]	2	FULL DP	SUBJ	SUBJ	0
U3	kai *o lagós* íthele [*and the rabbit wanted*]	2	FULL DP	SUBJ	SUBJ	0
U4	na Ø péxi me aftó [*to play with it*]	2	NULL	SUBJ	SUBJ	0
U5	*O lagós* prospáthise [*The rabbit tried*]	2	FULL DP	SUBJ	SUBJ	0
U6	na Ø to lísi [*to untie it*]	2	NULL	SUBJ	SUBJ	0
U7	allá aftó *tou* éfige [*but it flew away from him*]	2	CLITIC	NONSUBJ	SUBJ	0
U8	**Ø** árxize [*She started*]	1	NULL	SUBJ	SUBJ	1D
U9	na **Ø** thimóni [*to get angry*]	1	NULL	SUBJ	SUBJ	0
U10	kai na **Ø** fonázi [*and to shout*]	1	NULL	SUBJ	SUBJ	0
U11	Tóte *o lagós* íde énan gerolagó [*Then the rabbit saw an old rabbit*]	2	FULL DP	SUBJ	NONSUBJ	1D
U11	Tóte *o lagós* íde énan gerolagó [*Then the rabbit saw an old rabbit*]	3	INDEF	NONSUBJ	INTRO	INTRO
U12	Ø zítise [*asked*]	2	NULL	SUBJ	SUBJ	1S
U13	na Ø pári éna balonáki [*to get a small balloon*]	2	NULL	SUBJ	SUBJ	0
U14	alá *o lagós* den íxe leftá [*but the rabbit did not have any money*]	2	FULL DP	SUBJ	SUBJ	0
U15	ke Ø teliká den bórese [*and eventually did not manage*]	2	NULL	SUBJ	SUBJ	0
U16	Ómos i mamá pernoúse sto dásos [*But the mother was passing by the forest*]	4	FULL DP	SUBJ	INTRO	INTRO
U17	Ø katálave [*She understood*]	4	NULL	SUBJ	SUBJ	0
U18	ti égine [*what had happened*]	--	--	--	--	--
U19	I mamá édose leftá [*The mother gave money*]	4	FULL DP	SUBJ	SUBJ	0
U20	kai i mamá antí gia éna agórase dío balónia. [*and the mother instead of one bought two ballons*].	4	FULL DP	SUBJ	SUBJ	0

The second column (UNIT) in Table S4 reports the transcription of the narrative, together with its English translation. As unit of analysis, we considered the clause, defined by the occurrence of a verb. Units with more than one RE (e.g., U1) are repeated as many times as the number of REs

they contain. The actual number of the unit is reported in the first column (N_UNIT). The third column (CHAIN) assigns an index to each animate character (e.g., 1 for the doggie girl and 2 for the rabbit boy). First, we coded each RE for type (TYPE in Column 4, e.g., full DP – i.e., full nouns –, null or clitic) and grammatical role (GRAMM, Column 5), distinguishing between subject (SUBJ) and non-subject (NONSUBJ). Then, we considered the grammatical role of the antecedent (ANT-GRAMM, in Column 6, including again SUBJ and NONSUBJ as values) and the number of animate referents intervening between two mentions of a certain referent. In the last case, we distinguish between referents of the same (S) or different (D) gender. If more than one animate referent intervenes, the occurrence of (at least) one animate referent of same gender is sufficient for using the label S following the number of intervening animate referents. Let us consider as an example the occurrence of the full DP *i mamá* (the mother) in subject position in U20. Its antecedent is the full DP *i mamá* (the mother) in subject position in the immediately preceding clause (U19). There is no animate referent intervening between the two mentions of the mother. As a second example, the null subject in U8 refers to the dog girl (as is clear from the picture sequence), whose previous (and first) mention was in subject position in U1 (*mía skilítsa* 'a dog girl'). These two mentions of the dog girl are separated by an intervening animate referent of different gender (i.e., the rabbit boy).

S5: Appendix I. Identification of overspecified and underspecified referring expressions based on grammatical and discourse features of the associated referents

OVERSPECIFICATION

Overspecification was defined as the use of a full noun (or a full pronoun) in contexts where the use of a null subject and a clitic could have been used without leading to ambiguities. In our analysis, we classified as "overspecified" all full nouns (or full pronouns) occurring in the following contexts:

(1) Full nouns that are used in subject position and their antecedent is in subject position and there are no animate referents intervening between the full noun and its antecedent. The full DP *i mama* (the mother) in U20 in Table S4 exemplifies this configuration, since its antecedent *i mama* (the mother) appears in subject position and only one inanimate referent (*leftá*, "money") occurs between these two nouns[1].

(2) Full nouns that are used in non-subject position and their antecedent is either in subject (as in (i) below) or non-subject (as in (ii) below) position and there is one animate referent (of same or different gender) intervening between the full noun and its antecedent, or no referent at all. In (i), the bolded constituent *tou lagoú* ('from the rabbit', singular, masculine and genitive) has the bolded null subject in the previous sentence as its antecedent and no animate character (but one inanimate character of different gender, i.e., the balloon, which is neuter) intervenes between the two mentions of the rabbit. In this case, the full noun could be replaced by the genitive clitic *tou*, without causing ambiguities.

(i) O   lagós$_1$ to$_2$ libístike
The.Nom.Masc.Sg rabbit.Nom.Masc.Sg it.Acc.Neu.Sg liked.Past.Act.Ind.3Sg

kai epeidí   tou   lagoú$_1$ Ø$_2$ tou$_1$
and because the.Gen.Masc.Sg   rabbit.Gen.Masc.Sg   he.Gen.Masc.Sg

árese   tóso   to$_2$ Ø$_1$
liked.Past.Act.Ind.3Sg a lot   it.Acc.Neu.Sg **he**.Nom.Sg

éluse   Allá   Ø$_2$ éfuge
untied.Past.Act.Ind.3Sg. But   it.Nom.Neu.Sg   flew.Past.Act.Ind.3Sg

        tou   **lagoú$_1$**
from the.Gen.Masc.Sg   rabbit.Gen.Masc.Sg

[The rabbit liked it (the balloon) and because the rabbit, he liked it a lot, **he** untied it. But it flew away **from the rabbit**].

[CH 110; Greek-German; F; age: 8;4; ILE: .31]

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[1] This configuration includes also cases in which a referent is introduced in subject position by means of an indefinite noun and is resumed by a definite noun in the next unit, provided that no referent intervenes between these two mentions. An example of this configuration is: "There was *a rabbit*. *The rabbit* went to the swimming pool".

The bolded full noun *tou kamilopárdali* in (ii) refers to the giraffe, whose last mention is the constituent *ton kamilopárdali* in non-subject position, with one intervening animate character (i.e., the elephant girl, referred to by a null subject). Also in this case, the full noun could be replaced by the genitive clitic *tou*, without causing ambiguities.

(ii) Kai   i   elefantína   évlepe
    and the.NOM.FEM.SG. elephant.NOM.FEM.SG was looking.PAST_CONT.ACT.IND.3SG

    ton   **kamilopárdali**   entuposiasméni   .
   at the.ACC.MASC.SG. giraffe.ACC.MASC.SG. impressed.PAST.PASS.PCP.3SG.NOM.FEM.

    Tote to   Ø   árpaxe   apó
   Then it.ACC.NEU.SG. she.NOM SG   grabbed.PAST.ACT.IND.3SG.   from

    to   xéri   **tou**   **kamilopárdali**
   the.ACC.NEU.SG.   hand.ACC.NEU.SG.   the.GEN.MASC.SG. giraffe.GEN.MASC.SG

[And the elephant was looking **at the giraffe** impressed. Then she grabbed it (the balloon) from the hand **of the giraffe**].

[CH23; Greek-Albanian; F; age: 9;8; ILE: .04]

UNDERSPECIFICATION

Underspecification was defined as the use of a reduced form (null subject or clitic), which is ambiguous between two or more referents. In these contexts, the use of a more explicit referring expression (i.e., a full noun) would be more appropriate. In our analysis, we classified as "underspecified" all reduced forms occurring in the following contexts:

(1) Null subjects whose antecedent is in subject position and there is one character (of same or different gender) intervening between these two mentions. The null subject in U8 in Table S4 exemplifies this configuration. Its antecedent *mía skilítsa* (a female dog) appears in subject position in U1 and one animate referent (*o lagós* 'the rabbit') occurs between the two mentions of the female dog.

(2) Null subjects whose antecedent is in subject position and there is more than one character (of same or different gender) intervening between these two mentions. In (iii), the child uses a null subject (in bold) in the last clause to reintroduce the balloon-seller, firstly introduced by means of an indefinite (*énan megálo lagó* 'a big rabbit') followed by a subject relative pronoun at the beginning of the excerpt. That the child intends to refer to the balloon-seller is clear from the picture sequence. However, the null subject is ambiguous, given that two characters are mentioned before reintroducing the balloon-seller, i.e., the rabbit boy and his (doggy) friend. In this context, the use of a null subject would be more appropriate for picking up the last-mentioned referent, i.e., the rabbit boy.

(iii) Tóte Ø   vlépei   **énan**
    Then he.NOM.SG. sees.PRES.ACT.IND.3SG   a.ACC.MASC.SG.

megálo	**lagó**		apó makriá	pou
big.ACC.MASC.SG.	rabbit.ACC.MASC.SG.		from far away	that

pouloúse		balónia	kai
was selling.PAST.IPFV.ACT.IND.3SG.		balloons.ACC.NEU.PL.	and

Ø	íthele		na Ø	agorásei
he.NOM.SG	wanted.PAST.ACT.IND.3SG.		to he.NOM.SG	buy.PAST.ACT.CONJ.3SG.

to	oreótero		balóni	gia
the.ACC.NEU.SG.	the best.ACC.NEU.SG.		balloon.ACC.NEU.SG.	for

ti	fíli		tou.	Ómos den
the.ACC.FEM.SG.	friend.ACC.FEM.SG.		his.GEN.MASC.SG	But not

Ø	eíxe		leftá.	Kai étsi den
he.NOM.SG.	had.PAST.ACT.IND.3SG.		money.ACC.NEU.PL.	And so not

Ø	édose		to	balóni.
he.NOM.SG.	give.PAST.ACT.IND.3SG.		the.ACC.NEU.SG.	balloon.ACC.NEU.SG.

[Then he (the rabbit boy) sees **a big rabbit** from far away who was selling balloons and he wanted to buy the best balloon for his friend. But he had no money. And so **he** did not give the balloon].

[CH30; Greek-Albanian; F; age: 11;7; ILE: -.32]

(3) Null subjects referring to a non-subject antecedent with one or more animate referent (of same or different gender) intervening between the null subject and its non-subject antecedent[2]. This configuration is exemplified in (iv), in which the bolded null subject in the last sentence reintroduces reference to the lifeguard (i.e., the man that helps the two children catch the helicopter), which was last mentioned by means of the genitive clitic *tou*. That the child intends to refer to the lifeguard is clear from both the picture sequence and the story continuation (i.e., *allá den Ø bórese* 'but he could not'). However, given that one referent (of different gender) intervenes between the two mentions of the lifeguard (i.e., the elephant girl), the use of a null subject would normally refer back to this referent.

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[2] Our corpus also contains few cases, in which no referent intervenes between the null subject and its non-subject antecedent, as exemplified in (*) below, in which there is no character intervening between the null subject (in bold) and its non-subject antecedent (*sto lagó* 'at the rabbit'). Although most null subjects in Greek tend to refer to the subject of the previous clause (*i skilítsa* 'the dog girl' in this example; cf. Papadopoulou et al. 2015) – whereby reference of a null subject to a non-subject antecedent could be ambiguous – in all these cases, the null subject is disambiguated by discourse coherence: in (*), it is clear that the rabbit boy is the referent being frightened, since the dog girl is angry. Torregrossa et al. (2020) show that reference of a null subject to a non-subject antecedent is not completely excluded in Greek.

(*) I skilítsa thímose tóso polú **sto lagó**. Ø trómaxe polú.
'The dog girl got so angry at the rabbit boy. He/she was very frightened'.

[CH11; Greek-Albanian; F; age: 12;0; ILE: -.01]

(iv) kai Ø   píge   pros to méros **tou**
    and she.NOM.SG.   went.PAST.ACT.IND.3SG.   towards   him.GEN.MASC.SG.

kai Ø   eípe   óti tis
and she.NOM.SG. said.PAST.ACT.IND.3SG. that her.GEN.FEM.SG.

épese   mes'to   neró.   Ø
fell.PAST.ACT.IND.3SG. in the.ACC.NEU.SG. water.ACC.NEU.SG.   he/she.NOM.SG.

prospathoúse   na to   Ø
was trying.PAST.IPFV.ACT.IND.3SG. to it.ACC.NEU.SG. he.NOM.SG.

piásei   allá den   Ø
catch.PAST.ACT.CONJ.3SG.   but not   he.NOM.MASC.SG.

bórese.
could.PAST.ACT.IND.3SG.

[And she went towards **him** and said that it (the airplane) fell her in the water. **He/she** was trying to catch it but he could not].

[CH47; Greek-English; F; age: 12;4; ILE: .19]

(4) Clitics whose antecedent is in subject or non-subject position and there are at least two characters (of which one is of the same gender) between the two mentions of the referent. In (v), the bolded masculine singular genitive clitic *tou* (to him) would be normally interpreted as referring to the last mentioned male referent (i.e., the elephant). However, the picture shows that the elephant woman gives the airplane to the giraffe boy, whose last mention precedes the first unit in the excerpt. Thus, there are two intervening characters (one of same and one of different gender, i.e., the elephant man and the elephant girl, respectively) between the two mentions of the giraffe boy.

(v) Ø   kitoúse
She.NOM.SG. looked.PAST.IPFV.ACT.IND.3SG.

tromagméni   pou Ø
scared.PAST.PASS.PCP.3SG.NOM.FEM. that she.NOM.SG.

éklege.   Metá énas   eléfantas
was crying.PAST.IPFV.ACT.IND.3SG. Then an.NOM.MASC.SG. elephant.NOM.MASC.SG.

pou ákouse   ekeí tin   istoría   ti
who heard.PAST.ACT.IND.3SG. there the.ACC.FEM.SG.   story.ACC.FEM.SG.   what

eíxe sumveí.   O   eléfantas
had happened.PAST.PERF.ACT.IND.3SG. The.NOM.MASC.SG. elephant.NOM.MASC.SG.

píge   kai prospáthise   na   Ø   piásei
went.PAST.ACT.IND.3SG.   and tried.PAST.ACT.IND.3SG.   to   he.NOM.SG.   catch.
PAST.ACT.CONJ.3SG

mátaia to   aeroplanáki   pou eíxe pései
in vain the.ACC.NEU.SG. airplane.ACC.NEU.SG. that had fallen.PAST.PERF.ACT.IND.3SG.

mésa sto   neró.   Metá   érxetai
into the.ACC.NEU.SG.   water.ACC.NEU.SG.   Then there comes.PRES.ACT.IND.3SG.

kai mia   kuría   me éna   díxtu
and a.NOM.FEM.SG.   woman.NOM.FEM.SG. with a.ACC.NEU.SG.   net.ACC.NEU.SG.

kai to   piánei   to   aeroplanáki.
and it.ACC.NEU.SG.   gets.PRES.ACT.IND.3SG. the.ACC.NEU.SG. airplane.ACC.NEU.SG.

Tou   to   Ø   dínei
Him.GEN.MASC.SG.   it.ACC.NEU.SG.   she.NOM.SG.   gives. PRES.ACT.IND.3SG.

[She looked scared that she was crying. Then an elephant who heard the story what had happened. The elephant went and tried to catch in vain the airplane that had fallen into the water. Then there comes also a woman with a net and gets it, the airplane. She gives it to **him**].

[CH08; Greek-Albanian; M; age: 11;9; ILE: -.13]

Table S6. *Raw frequencies, means (per child) and standard deviations of full nouns (full DPs), nulls, clitics and full pronouns (PRONs) occurring in the Greek narratives*

TYPE OF REFERRING EXPRESSION	FREQUENCY	MEAN	SD
Full DPs	901	7.20	3.78
Nulls	1039	8.31	5.74
Clitics	138	1.10	1.73
PRONs	54	.43	.80

Table S7. *Raw frequencies, means (per child) and standard deviations of overspecified full nouns (full DPs), overspecified full pronouns (PRONs), underspecified nulls and underspecified clitics occurring in the Greek narratives*

TYPE OF REFERRING EXPRESSION	FREQUENCY	MEAN	SD
Overspecified full DPs	357	3.28	1.81
Overspecified PRONs	31	.20	.44
Underspecified nulls	373	3.42	2.77
Underspecified clitics	25	.15	.36

S8: Linear model of the factors affecting the production of overspecified full pronouns among children dominant in Greek and in the other language

Before conducting the LME-analysis for overspecified pronouns, it should be pointed out that the children in both groups (dominant in Greek or dominant in the other language) produced overspecified full pronouns only in subject position. As a consequence, we could not estimate the effect of syntactic position and fit random intercepts (given that we have only one observation per child, corresponding to the normalized frequency of overspecified pronouns in subject position). We ran a linear model, to observe the effects of ILE, EFs and language combination in the production of overspecified pronouns. In the Greek-dominant group, no effect was significant (ILE: β = -.08, SE= .15, t = -.57, p = .57; EFs: β = .00, SE = .00, t = .53, p = .60; language combination (Greek-English): β = -.03, SE = .05, t = -.54, p = .59; language combination (Greek-German): β = .03, SE = .04, t = -.80, p = .43). We found no significant effect among the children who were dominant in the other language either (ILE: β = -.13, SE = .09, t = -.1.44, p = .15; EFs: β = .00, SE = .00, t = .1.20, p = .23; language combination (Greek-English): β = -.00, SE = .04, t = -.08, p = .94; language combination (Greek-German): β = -.03, SE = .05, t = -.46, p = .65). As mentioned above, these results should be taken with caution because of the small amount of pronouns produced by each group. Only 19 children produced at least one overspecified subject pronoun: 9 in the group of Greek-dominant bilinguals and 10 in the group of bilinguals that were dominant in the other language.