

THE INTERPRETATION OF ENGLISH REFLEXIVE PRONOUNS BY
POLISH LEARNERS OF ENGLISH

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1. Introduction

The determination and characterisation of the linguistic capacities of particular individuals has been the focus of generative studies from their origins to the present day. In the words of Chomsky and Lasnik:

We are concerned, then, with stages of the language faculty, which we understand to be some array of cognitive traits and capacities, a particular component of the human mind/brain. The language faculty has an initial state, genetically determined; in the normal course of development it passes through a series of states in early childhood, reaching a relatively stable steady state that undergoes little subsequent change, apart from the lexicon. To a good first approximation, the initial state appears to be uniform for the species. Adapting traditional terms to a special usage, we call the theory of the state attained its *grammar* and the theory of the initial state *Universal Grammar* (UG) (Chomsky 1995: 14).

Any attempt to describe the characteristics of the steady state reveals that language poses the so-called Plato's problem or the problem of "poverty of stimulus". This means that we have to account for the richness and complexity of human linguistic knowledge given the limited data that are used to construct this knowledge. In other words, there are many aspects of linguistic competence which are underdetermined by the input. A frequently cited example concerns the interpretation of pronouns:

- (1) a. *I wonder who [the men expected to see them]?*
b. *[The men expected to see them.]* (Chomsky 1986: 8)

The pronouns in the two bracketed clauses have different interpretations: in (1a) it may be referentially dependent on the men, while in (1b) this is not possible. Chomsky (1986: 8) says that many facts of this kind are “known without relevant experience to differentiate the cases” and asks how it is possible that every child knows unerringly to interpret the clause differently in the two cases.

This, and many other similar phenomena can be explained if we assume that children have access to abstract principles of Universal Grammar. The component of UG responsible for the interpretation of pronouns is the binding module.

It is thus the nature of the evidence L1 learners have access to compared with the end result of the process of acquisition that motivates the postulation of Universal Grammar. In addition to meagreness, this evidence possesses another characteristic which strengthens the case for UG. Namely, the language addressed to children seldom includes corrections of ill-formed sequences. Moreover, there are studies which demonstrate that even when children do receive such negative evidence, they do not make use of it. The most famous example is probably a dialogue from a study by McNeill (1970):

- (2) CHILD: *Nobody don't like me.*
 ADULT: *No, say: "Nobody likes me"*
 CHILD: *Nobody don't like me*
 (eight repetitions of this dialogue)
 ADULT: *No, now listen carefully. Say: "Nobody likes me"*
 CHILD: *Oh, nobody don't likes me.* (McNeill 1970: 106-107)

Furthermore, the negative evidence that L1 learners get concerns only limited types of errors. That is, there are possible errors that never occur, for example L1 learners do not produce certain logically possible forms of *wh*-questions (White 1989: 14).

All this means that their knowledge of ungrammaticality cannot stem from negative input. Thus, there must be some other source of knowledge that L1 learners draw upon in the process of language acquisition and it seems that the UG theory provides a plausible characterisation of that source.

2. The availability of UG to second language learners

Since the 1980s more and more research has been done into the question of how the theory of UG relates to second language (L2) acquisition. There are obviously significant differences between L1 and L2 acquisition. Firstly, L2 learners already possess a knowledge of another language, their mother tongue. Secondly, the average L2 learner does not attain native-like proficiency in his/her second language. Thirdly, most L2 learners are older than L1 learners when the process begins. In addition to that there are differences concerning the availability of negative evidence and naturalistic input.

However, the existence of such differences does not force one to claim that UG plays no role in L2 acquisition. The differences very often do not concern phenomena relevant to the principles of Universal Grammar. For example, the fact that L2 learners frequently produce ill-formed sentences and are corrected by their teachers or native speakers should not be taken to mean that the basic internal mechanisms of L1 and L2 acquisition are different. The point is that to demonstrate that UG is not an active force in L2 learners we would have to show that that they make errors which violate the principles of UG. A simple error in the use of tenses and its subsequent correction tell us nothing about the unavailability of the abstract knowledge represented by UG. The same can be said about the failure to achieve L2 competence on a par with that of a native speaker: pronunciation, inflectional morphology, and vocabulary, which are typical problem areas for L2 learners, are not directly linked to Universal Grammar. Thus, despite the differences mentioned above, the UG hypothesis for second language acquisition is not a non-starter. To determine that UG operates in the process we need to show that L2 learners possess knowledge they could not have gained by attending to linguistic data. If this is the case, we must attribute it to some component of the mind. In this chapter we report the results of a study which investigates the question of the availability of UG for L2 learners.

One can formulate three basic hypotheses concerning the role of Universal Grammar in adult L2 acquisition. Following Thomas (1991) we will refer to them as Hypothesis A, Hypothesis B and Hypothesis C. Hypothesis A says that UG is dead as far as adult L2 learners are concerned. Learners should not possess any knowledge that is not attainable via general learning strategies which are used in acquiring other types of skills. Also, interlanguage grammars should not be expected to observe the principles of UG: they may therefore contain structures prohibited by UG and which do not occur in any natural language.

Under Hypothesis B, L2 learners have indirect access to UG. That is, they are able to tap those universal principles which are exhibited in their native language. Thus, if L1 and L2 differ with respect to a value of a parameter, L2 learners should not be able to reset the value from L1 to L2 with the help of UG. To capture the relevant aspect of L2 grammar they can only rely on input data or explicit training. If this fails, learners may construct rules which are not sanctioned by Universal Grammar.

Finally, according to Hypothesis C, L2 learners have direct access to the principles of UG and are able to activate parameter settings which are not instantiated in their L1. They should not construct “wild” or “rogue” grammars and make “impossible” errors. This does not mean, however, that the transfer of the L1 parameter setting may not occur initially in L2 learners’ grammars. This is a strategy that may be used initially to organise the L2 input data. What is cru-

cial is that L2 learners are capable of acquiring the L2 value via the interaction of L2 input and UG.

There are several areas in which the hypotheses presented above make different predictions. We would like to focus on the ability of L2 learners to access principles of UG which are not exemplified in their L1. Reflexivisation phenomena in Polish and English provide an excellent object of inquiry. Firstly, the Polish and English reflexives exhibit different properties in the two languages. Secondly, a lot of research into these phenomena has already been done by generative grammarians and language acquisition researchers. Thirdly, L2 learners do not normally receive explicit instruction concerning anaphoric dependencies. Thomas (1991: 217) inspected a dozen popular English textbooks and found "at best brief or vague treatment of the interpretation of reflexives. Example sentences, if any, contain only one potential antecedent." She also says that none of the teachers of English as a second language she interviewed instructs students in this area. This means that it is highly unlikely that L2 learners derive their knowledge of this aspect of grammar from a conscious examination of input data.

3. The parameter setting approach and the reflexives in English and Polish

Most of the experimental studies of reflexivisation phenomena have been carried out in the theoretical framework developed by Manzini and Wexler (1987). Their formulation of the parameter is as follows:

- (3) γ is a governing category for α iff
- γ is the minimal category that contains α and a governor for α and
 - a. has a subject β , $\beta \neq \alpha$; or
 - b. has an Infl; or
 - c. has a Tense; or
 - d. has a "referential" Tense; or
 - e. has a "root" Tense. (adapted from Manzini – Wexler 1987: 422-423)¹

In Manzini and Wexler's framework English takes value (a) of the parameter, which means that the subject is the opacity factor:

- (4) a. *Bill_j told John_i PRO_i to prepare a room for himself_{*j/i}.*
 b. *Bill_j believes John_i's description of himself_{*j/i}.*

However, as far as Polish is concerned, Manzini and Wexler's approach is empirically inadequate. There are many cases that cannot be accounted for by any of the values of the parameter. Sentence (5) below demonstrates the fact that in

Polish the presence of a subject does not create a binding domain. It also shows that the Infl element in the embedded clause does not prevent the anaphor from finding its antecedent in the main clause. Thus, values (a) and (b) of the parameter clearly do not apply to Polish.

- (5) *Jan_i kazał Piotrowi_j [PRO_j ugotować obiad dla siebie_{i/j}].*
 John told Peter (to) cook dinner for self
 'John told Peter to cook dinner for himself.'

Sentence (6) excludes value (e): the root Tense is irrelevant for defining the binding domain. Therefore, the choices we are left with are value (c), Tense, and (d), referential Tense.

- (6) *Maria_o wie, że [Ania_i opowiadała Kasi_j o sobie_{i/*o/*j}].*
 Mary knows that Ann told Kate about self
 'Mary knows that Ann told Kate about herself.'

Regardless of which value we opted for, we would not be able to account for sentences (7-9), in which it seems that the embedded infinitival clauses constitute the barriers for the reflexives:

- (7) *Jan_i kazał, żeby [PRO_j pomóc sobie_{*i} / mu_i jutro].*
 John ordered that (to) help self / him tomorrow
 'John said to help him tomorrow.'
- (8) *Jan_i nie powiedział, czy [PRO_j pomóc sobie_{*i} / mu_i jutro].*
 John not said whether (to) help self / him tomorrow
 'John didn't say whether to help him tomorrow.'
- (9) *Jan_i nie powiedział, kiedy [siebie_{*i} / go_i PRO_j odwiedzić].*
 John not said when self / him (to) visit
 'John didn't say when to visit him.'

Finally, in (10), we have an example in which a reflexive cannot be bound outside a deverbal nominal. This provides us with further evidence that it is wrong to treat Tense as the opacity factor in Polish:

- (10) *Jan_i usiadł przed [PRO_j nalaniem siebie_{*i} / mu_i wina].*
 John sat down before pouring self / him wine
 'John sat down before they poured him wine.'

It is not the purpose of this article to develop a theoretical approach to reflexivisation phenomena in Polish. We will therefore conclude this section by saying that English and Polish differ with respect to the value of the parameter that they instantiate, with the Polish value being unclear at the moment.

¹ For now we leave out the question of accessibility.

In Manzini and Wexler's approach in addition to the governing category parameter (the GCP) it is necessary to postulate another parameter which is responsible for the choice of the antecedent in terms of different grammatical functions. Manzini and Wexler refer to this parameter as the proper antecedent parameter (the PAP). The definition they give is as follows:

- (11) A proper antecedent for α is
 a. a subject β ; or
 b. any element β . (Manzini – Wexler 1987: 431)

The English *himself* takes value (a) of the GCP and value (b) of the PAP. The Polish reflexive takes value (a) of the PAP.

4. Previous studies of the acquisition of English reflexives by L2 learners

Previous work on L2 acquisition of reflexive pronouns indicates that L2 learners have direct access to Universal Grammar. We look at two studies which demonstrate this.

Finer (1991) carried out a study in which Korean, Japanese (value (e)) and Hindu (value (c)) learners of English were tested. The subjects were asked to match pictures to sentences with reflexive pronouns. The sentences contained both finite and nonfinite embedded clauses like the ones below:

- (12) Mr. Fat thinks that Mr. Thin will paint himself.
 (13) Mr. Fat wants Mr. Thin to paint himself.

The results show that the learners preferred local antecedents for reflexives in finite clauses, but are much more willing to select nonlocal ones for reflexives in infinitival clauses. By way of illustration we give the responses of the speakers of Japanese:

(14)

	Local antecedent	Nonlocal	Other
Tensed clause	91%	5	4
Infinitival clause	76%	12	12

There is a strong tendency for the subjects to select local antecedents, which is in agreement with the Subset Principle. Thus, it seems that the majority of them have succeeded in resetting the value of the parameter.

Thomas (1991) tested the acquisition of both the GCP and the PAP by adult Japanese and Spanish learners of English. The following type of sentence was used to investigate the former parameter:

- (15) Mary heard that Sue told the doctor about herself.

The subordinate clause subject is the local antecedent and the only possible antecedent for herself. The results show that from 70% to 91% of each group of L2 learners consistently linked the reflexive with the local antecedent (we only present the results of advanced learners):

(16)

	Local NP	Long-distance NP	Local or long-distance
Japanese	84.0	.0	16.0
Spanish	81.0	.0	9.5

Thus, both the majority of Japanese and Spanish learners appear to have succeeded in resetting the value of the parameter.

5. English reflexives and the Polish learner

Let us now examine how the three hypothesis presented in section 2 bear on the acquisition of English reflexives by Polish learners. Under Hypothesis A Polish learners of English should not have access to the English value of the parameter. This is because UG is unavailable, no explicit training is provided in this area of grammar, and examples of the relevant structures in the input that L2 learners are exposed to are very rare. L2 learners are therefore expected to entertain any imaginable hypotheses concerning the interpretation of reflexives, also those that do not occur in any natural language.

Hypothesis B makes the same predictions in this case. L1 and L2 differ with respect to the parameter in question, so no evidence of the acquisition of the English value is expected.

Finally, Hypothesis C predicts that Polish learners of English will demonstrate knowledge of the English setting as a result of direct access to UG. The specific hypothesis for the statistical analysis stemming from Hypothesis C above is that there is a significant and meaningful overlap between the two sets of results that is not due to chance. So if we can show that this hypothesis is confirmed, and considering the factors that we discussed above (the lack of explicit training, the rarity of the structures in question), we can attribute this to the operation of Universal Grammar.

6. Method

6.1 Subjects

Grade	Number of learners receiving the grade
2	16
3	39
3+ or 4	11

The subjects were 66 first year students of English at the School of English, Adam Mickiewicz University, Poznań, Poland. They were all native speakers of Polish randomly selected for the study from a group of over 100 first year students. They were divided into levels according to scores on an L2 proficiency test,² which was meant to provide a developmental perspective. Further divisions into groups were carried out on the basis of the starting age of language study / formal instruction (into pre- and post-puberty learners).³ We also tested a group of 33 native speakers of English in their L1. They were mainly teachers working at Adam Mickiewicz University.

6.2 Materials and procedure

We administered one experimental task, which consisted of two intermingled parts. In the first one we used a multiple-choice comprehension technique to investigate the interpretation of English reflexive pronouns in different types of syntactic structures. The subjects were presented with sentences containing a reflexive and two noun phrases (each sentence had potential antecedents listed underneath it), and were asked to circle an antecedent or antecedents for the reflexive. The sentence types were as follows:

Type 1: Biclausal; infinitival sentential complement. In this case answer *A* meant linking the reflexive with the matrix subject, answer *B* meant choosing as antecedent the lower NP (linked to the PRO subject of the infinitival clause), and answer *C* meant opting for either of them.

- (17) *Bill told John to prepare a room for himself.*
Ann told Jane to cook dinner for herself.
The instructor told the boy to build a hut for himself.

² The test used was the written part of the university entrance examination, which the subjects took in July 1998. The grades they received ranged from 2 to 4:

³ Initially, we had intended to look into the question of whether language instruction in a naturalistic setting influences the acquisition of reflexive pronouns. However, we were forced to abandon this idea as it turned out that very few of our learners had spent any time in an English speaking country.

Type 2: Single clause; subject vs. nonsubject NPs.⁴ Answer *A* referred to the subject, answer *B* referred to the object, and answer *C* referred to either of them, i.e. meant that the sentence was ambiguous.

- (18) *The priest told Bill some disturbing truths about himself.*
The psychiatrist told Bill some interesting things about himself.
After the examination the doctor told John some good news about himself.

The second part was a grammaticality judgement task investigating “picture-noun” constructions.⁵ The subjects were given the following examples and were given three options to choose from: *A* the sentence sounds good, *B* the sentence sounds bad, *C* I am not sure.

- (19) *Adam said that a book about himself was on sale.*
Mary thinks that pictures of herself are on display.
The President demanded that articles about himself should be published in all newspapers.

The subjects received the above sentences in a random order. The set also included examples which were not directly related to the phenomena under investigation, but were meant to insure that the subjects were at the appropriate level of proficiency.⁶ There were two versions of the task, each contained the same

⁴ The examples in this set are constructed in the way that makes the object pragmatically prominent as a potential antecedent of the reflexive. Without such pragmatic prominence native speakers of English tend to demonstrate a clear preference for subject antecedents: for example Thomas (1991: 230) reports a study in which only 12% of native speakers chose “either subject or nonsubject” responses. This does not mean, however that English selects value (a) of Manzini and Wexler’s PAP. A study by Thomas (1989) shows that when presented with examples in which objects are pragmatically prominent, native speakers readily identify reflexives with them.

⁵ The Polish equivalents of English “picture-noun” constructions are ill-formed. We return to this issue in the concluding section.

⁶ There are different ways of making sure that the subjects are able to handle the structures on which a given principle is supposed to operate. An alternative to the technique used in this study would be to administer a separate syntax test. To simplify the procedure we achieved the same result by including a grammaticality judgement task which consisted of sentences of comparable complexity which did not test the principle in question. To pass this built-in syntax test the responses of a given subject had to be the same as those of the native speakers taking part in the study. The syntax test sentences were as follows: *Bill asked John to wash the car.*

I want that she to invite Bill.

I prefer for him would leave early.

Is it true that he hurt herself?

Why did himself leave so early yesterday?

Ann bought those pictures of her sister.

Tom thought that Mark’s book about Bill would be a best-seller.

sentences in a different order.⁷ For the complete tasks see the appendix. The experiment was conducted in a quiet, well-lit classroom as part of an English lesson and the subjects were given unlimited time to complete the task. Before administering it we informally tested the students on the vocabulary included in the sentences. Members of the native group completed the task individually at their leisure.

6.3 Analyses

In our experiment we used the test for comparison of two proportions. We wish to test the hypothesis that the proportions in each population (i.e. in the population of native speakers of Polish and in the population of native speakers of English) are the same. This is our null hypothesis, which may be stated as $H_0: p_1 = p_2$. If the proportions exhibit a small/insignificant difference which is due to chance we can still say that $p_1 = p_2$. If, however, the difference (call it U) goes beyond the so-called critical value (i.e. $U < -cv$ or $U > cv$) we need to reject the null hypothesis.

Next we need to set the significance level for the critical value. In language studies the significance level is normally set at $\alpha = 0.01$ or 0.05 (Brown 1988: 116). Accepting the former means that we are prepared to tolerate 1 per cent error, accepting the latter that our margin of error is 5 per cent (i.e. if the U value exceeds the critical value at $\alpha = 0.01$, this means that the probability of error in rejecting the null hypothesis is 1 in 100, and so on). In our analysis we are going to consider only the two aforementioned significance levels. If the U value exceeds the critical value at $\alpha = 0.01$, we will say that the difference is highly significant. In the table below the two significance levels used in the study are marked with asterisks:

(20)

Significance level	$\alpha = 0.1$	$\alpha = 0.05^*$	$\alpha = 0.02$	$\alpha = 0.01^{**}$	$\alpha = 0.001$
Critical value	1.645	1.960	2.326	2.576	3.291

6.4 Results

The first table gives a summary of the results: it shows the numbers of responses which consistently link reflexives to a specific antecedent (antecedents) or consider ‘picture-noun’ constructions ill-formed or well-formed/not sure. As there are three tokens for each sentence type, a consistent answer means 2 or 3 out of

3. For options *A*, *B* and *C* see Materials and Procedure. Option *D* indicates a lack of consistency: the subject chose a different answer each time.

(21)

Answer	Polish Learners			Native Speakers		
	Type 1	Type 2	Type 3	Type 1	Type 2	Type 3
A	0	48	21	2	10	29
B	60	2	25	30	10	1
C	6	12	11	1	12	2
D	0	4	9	0	1	1

We now turn to the analysis of specific types of constructions, beginning with Type 1. The results in percentages were as follows:

(22)

	Polish learners	Native Speakers	Learner responses %	Native responses %	U Test
A	0	2	0	6.06	-2.021*
B	60	30	90.91	90.91	0.0
C	6	1	9.09	3.03	1.109
D	0	0	0	0	0.0

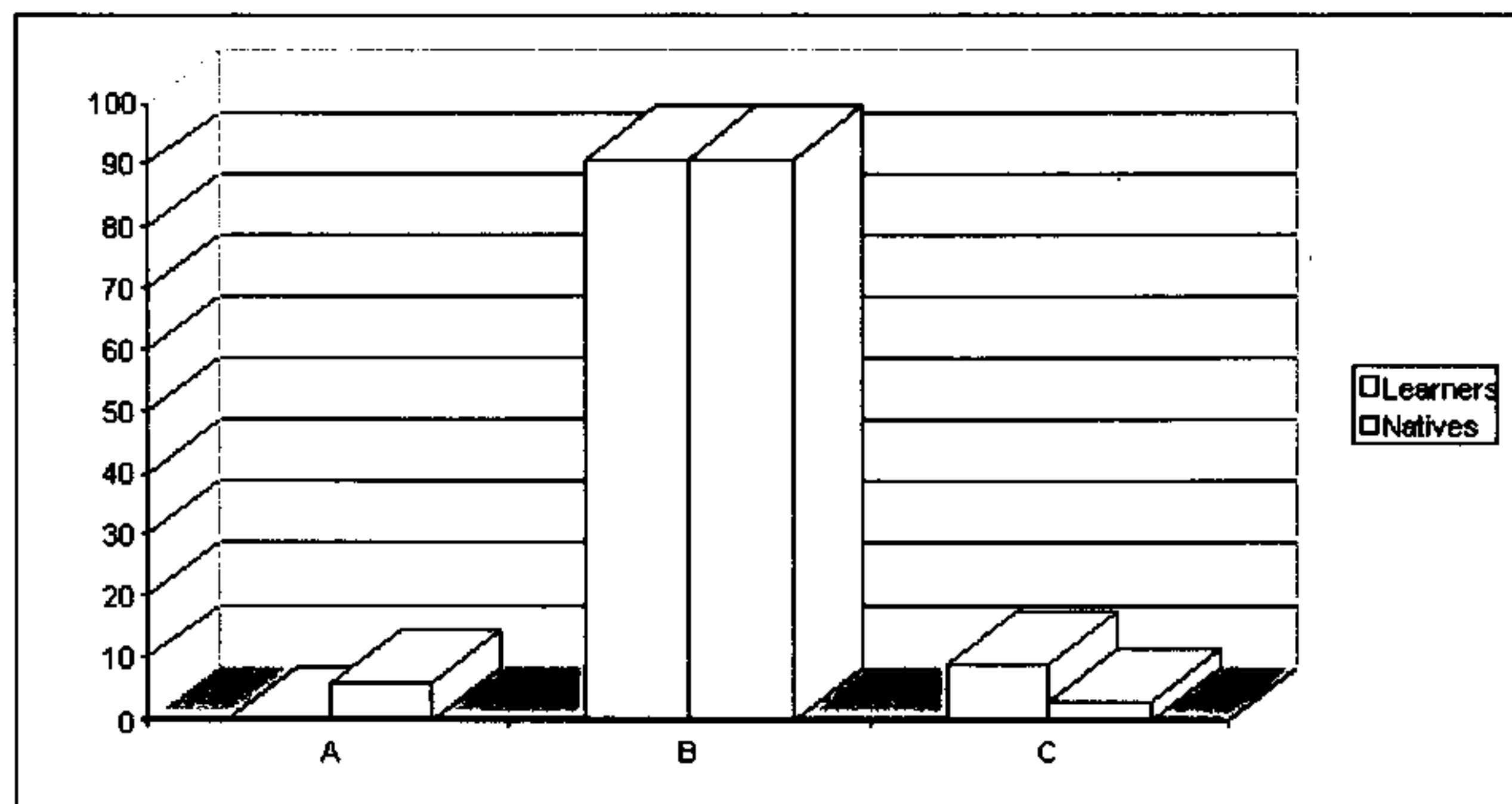
The general conclusion is that the vast majority of both Polish learners and native speakers of English only allow PRO subjects of embedded clauses as antecedents of reflexives in sentences like the one below (i.e. choose answer *B*):

(23) *Bill told John to prepare a room for himself.*

There is no difference as far as answer *B* is concerned. The asterisk next to the U Test result for answer *A* indicates a statistically significant difference. In this case, however, this result is not reliable as the U Test does not work well in situations in which the numbers of responses are close to zero. The diagram below illustrates all the responses:

⁷ This technique is meant to insure that placing a particular sentence in a particular part of the task does not influence the overall results.

(24)



Moving on to Type 2, the overall results were as follows:

(25)

	Polish learners	Native Speakers	Learner responses %	Native responses %	U Test
A	48	10	72.73	30.30	4.040**
B	2	10	3.03	30.30	-3.919**
C	12	12	18.18	36.36	-1.990*
D	4	1	6.06	3.03	0.649

After rejecting *D* responses (which we take to mean that the competence of a given subject is not reliable and should not be taken into account) we get the data in table (26). The double asterisk means that the difference is highly significant: at the 1% significance level.

(26)

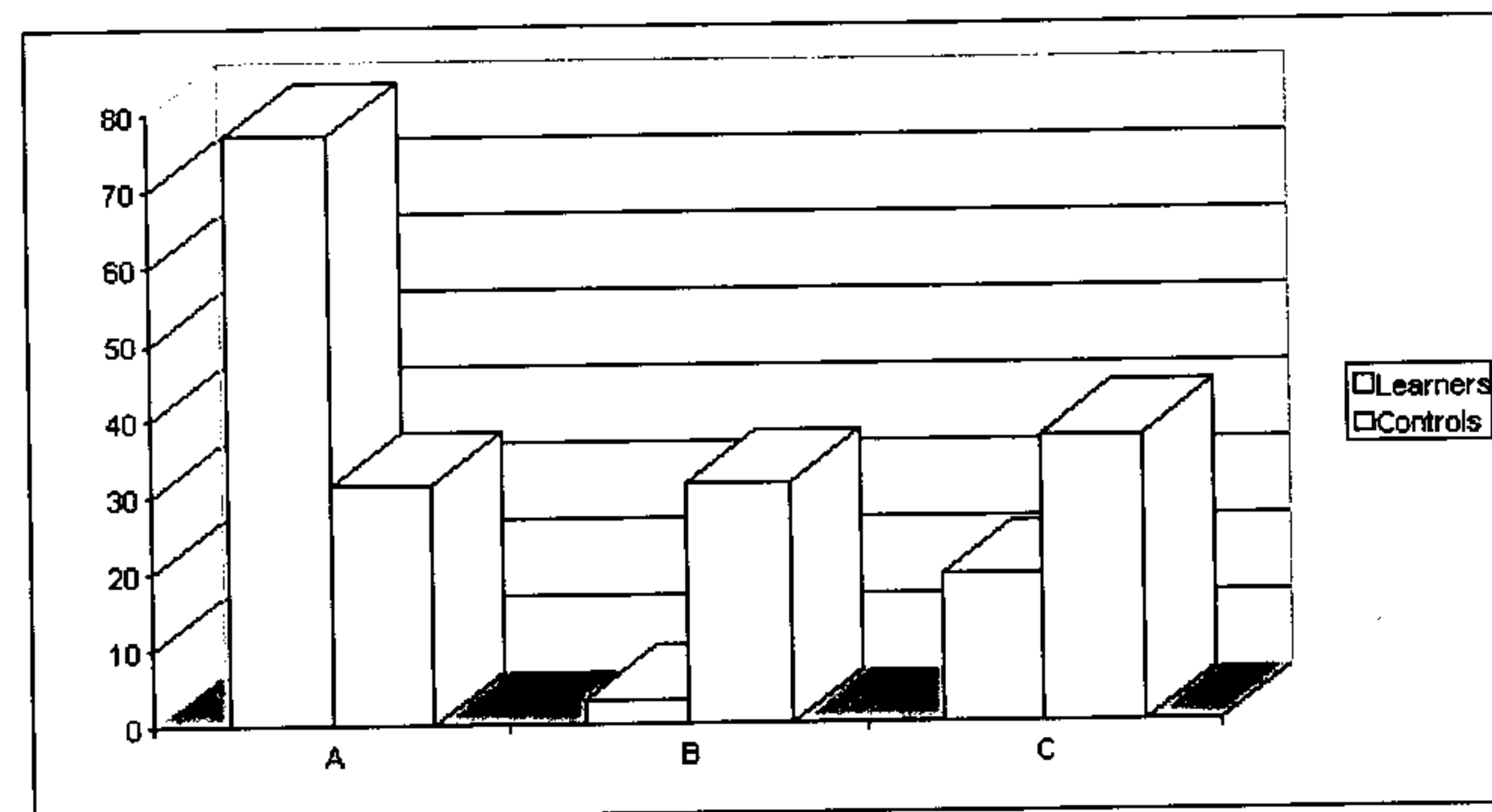
	Polish learners	Native Speakers	Learner responses %	Native responses %	U Test
A	48	10	77.42	31.25	4.363**
B	2	10	3.23	31.25	-3.858**
C	12	12	19.35	37.50	-1.912*

(26) shows that Polish learners prefer the subject as the antecedent of the reflexives (i.e. choose answer *A*) in sentences like the one below:

(27) *The psychiatrist told Bill some interesting things about himself.*

We again provide a diagram:

(28)



Finally, we give the results for Type 3, excluding answer *D* in the second table. The diagram illustrates table (30) and shows clearly that Polish learners are much less willing to accept "picture-noun" sentences (i.e. choose answer *A*) than our native speakers, the vast majority of whom consider them well-formed.

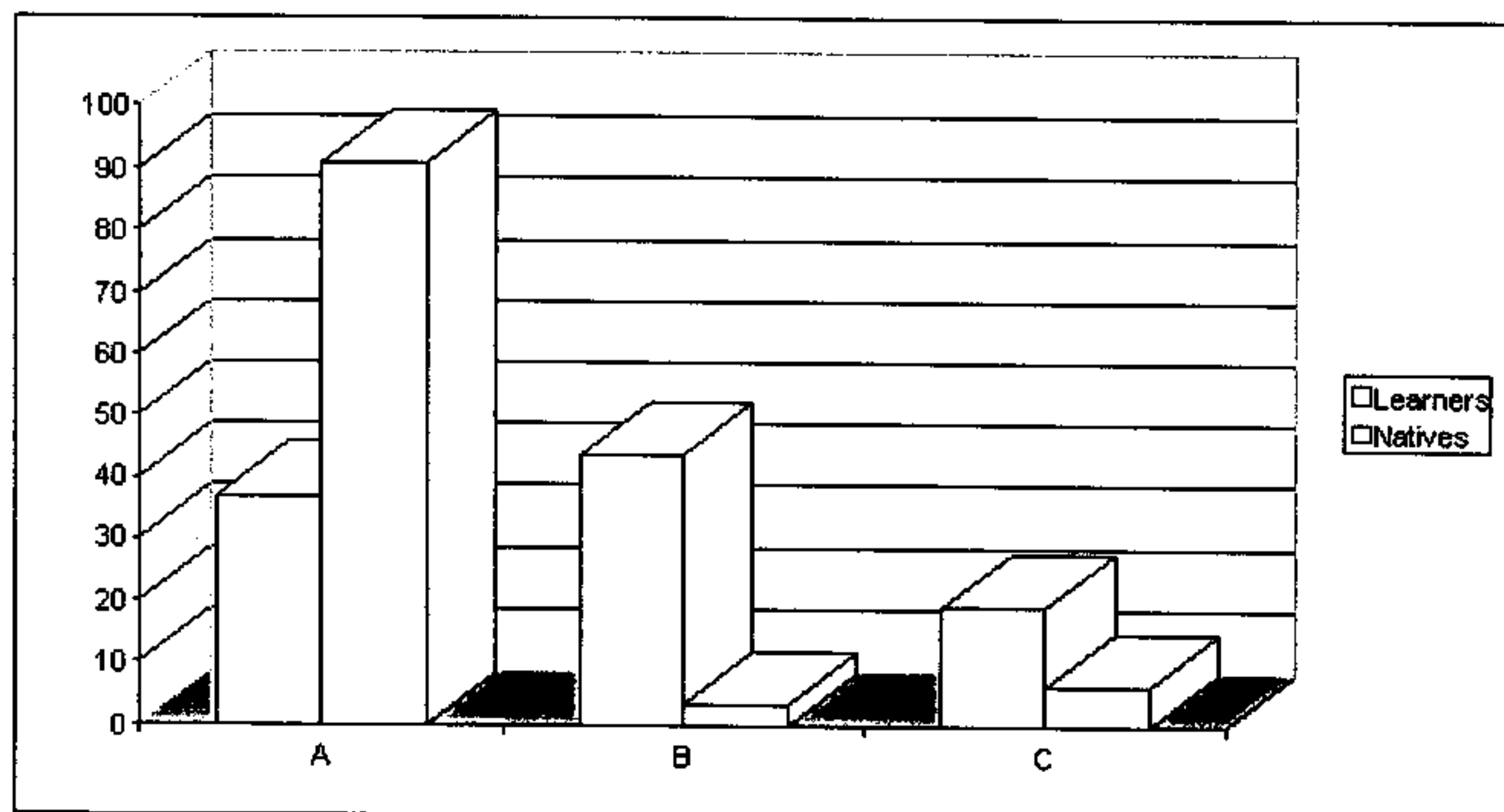
(29)

	Polish learners	Native Speakers	Learner responses %	Native responses %	U Test
A	21	29	31.82	87.88	-5.259**
B	25	1	37.88	3.03	3.714**
C	11	2	16.67	6.06	1.473
D	9	1	13.64	3.03	1.651

(30)

	Polish learners	Native Speakers	Learner responses %	Native responses %	U Test
A	21	29	36.84	90.63	-4.907**
B	25	1	43.86	3.13	4.055**
C	11	2	19.30	6.25	1.673

(31)



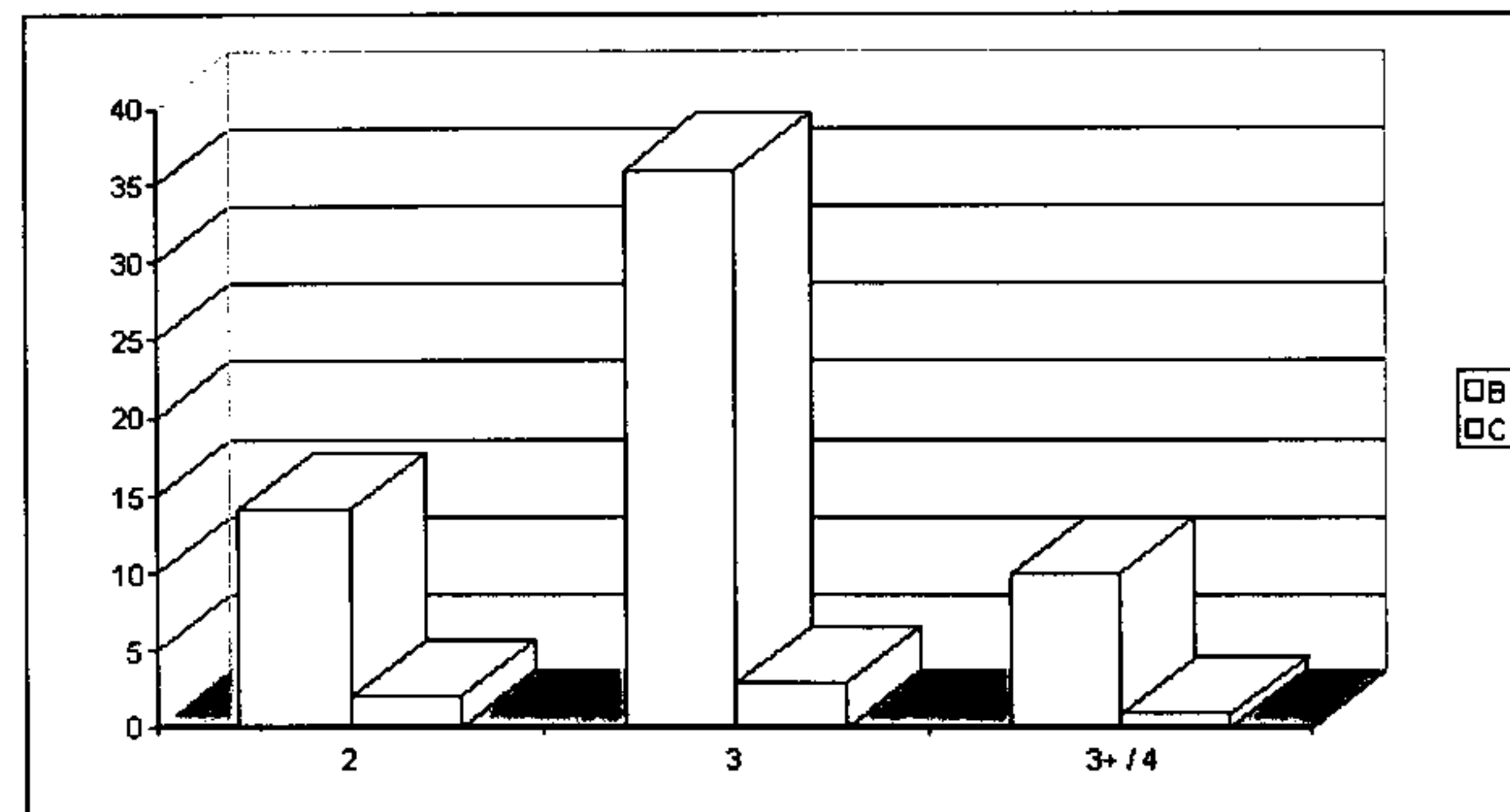
Next we would like to investigate whether the responses given by Polish learners were influenced by the following factors: the entrance examination results and the starting age of language instruction.

As far as the former is concerned, we found no correlation between the exam results and the responses. The tables and diagrams below illustrate this for Type 1 (32a), (32b), and Type 2 (33a), (33b), which were the clearest cases.

(32a)

Grade	Number of B answers	Number of C answers
2	14	2
3	36	3
3+ or 4	10	1

(32b)

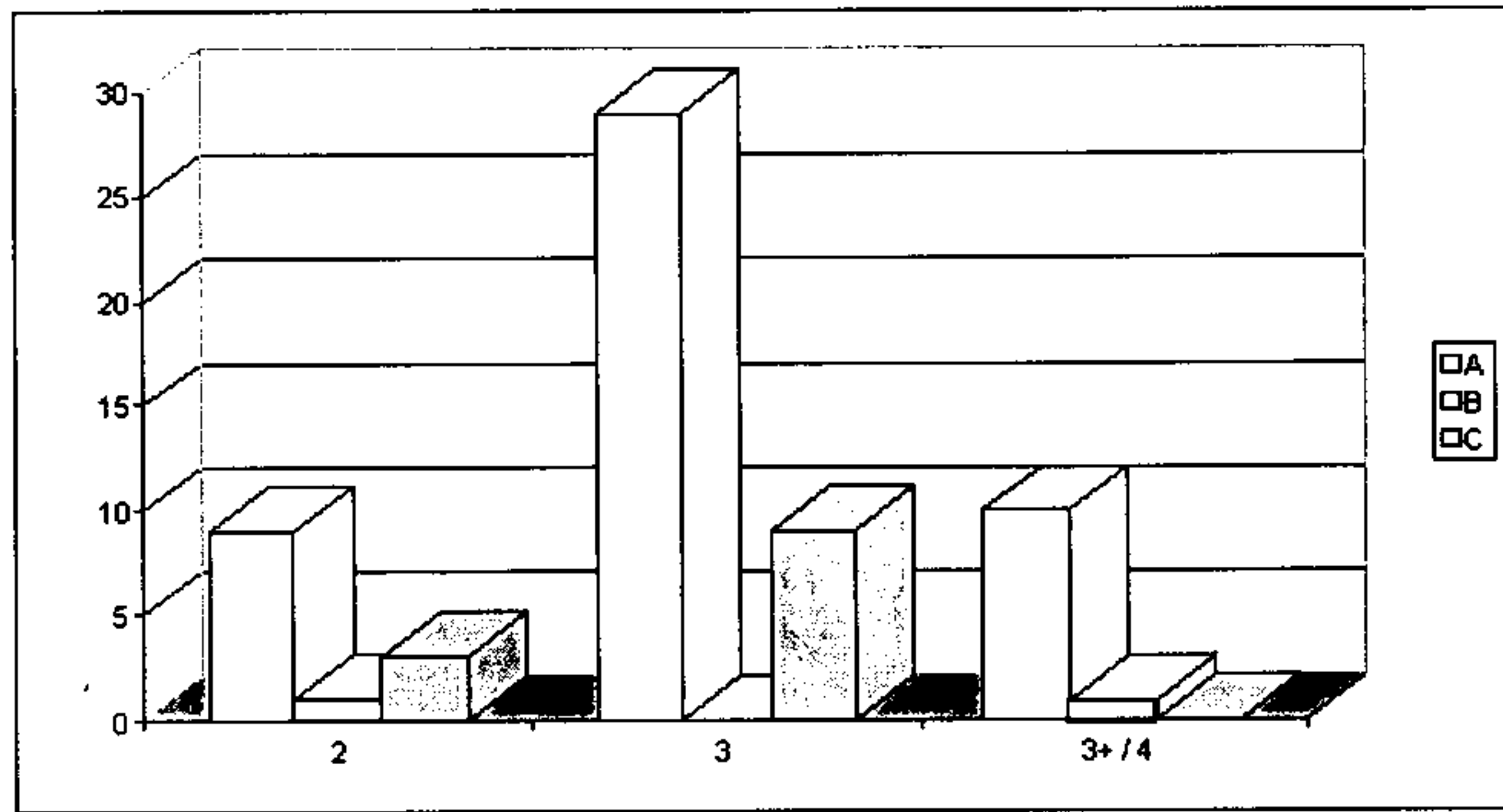


(32b) makes it clear that the grade does not influence the choice of the response as the columns are proportional: in all the grade groups answer B was chosen about ten times more often than answer C. As for (33b), it demonstrates that in all the grade groups answer A is the most frequent one.

(33a)

Grade	Number of A answers	Number of B answers	Number of C answers
2	9	1	3
3	29	0	9
3+ or 4	10	1	0

(33b)



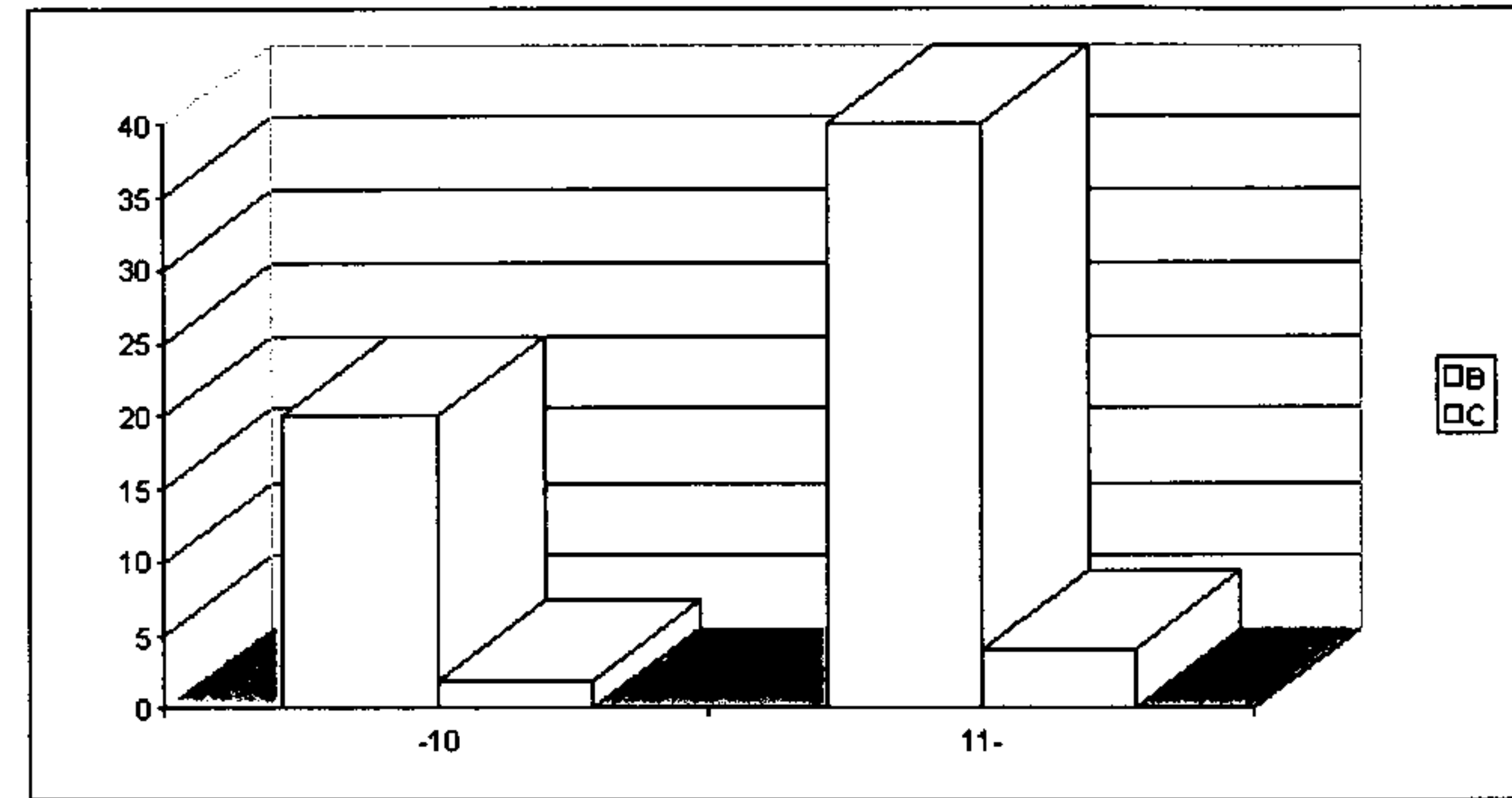
As far as the starting age of language instruction is concerned, no correlation was found either. We divided all the subjects into two groups: those who started learning English in the first ten years of life, and those who were 11 or older at the outset. Again we provide tables and diagrams for the first two construction types.

(34a) Type 1

Age	Number of B answers	Number of C answers
10 or younger	20	2
11 or older	40	4

The diagram in (34b) reflects the same phenomenon as the one in (32b): the columns are again proportional: in both age groups answer B was chosen exactly ten times more often than answer C. The conclusion is again that the investigated feature does not influence the behaviour of the subjects.

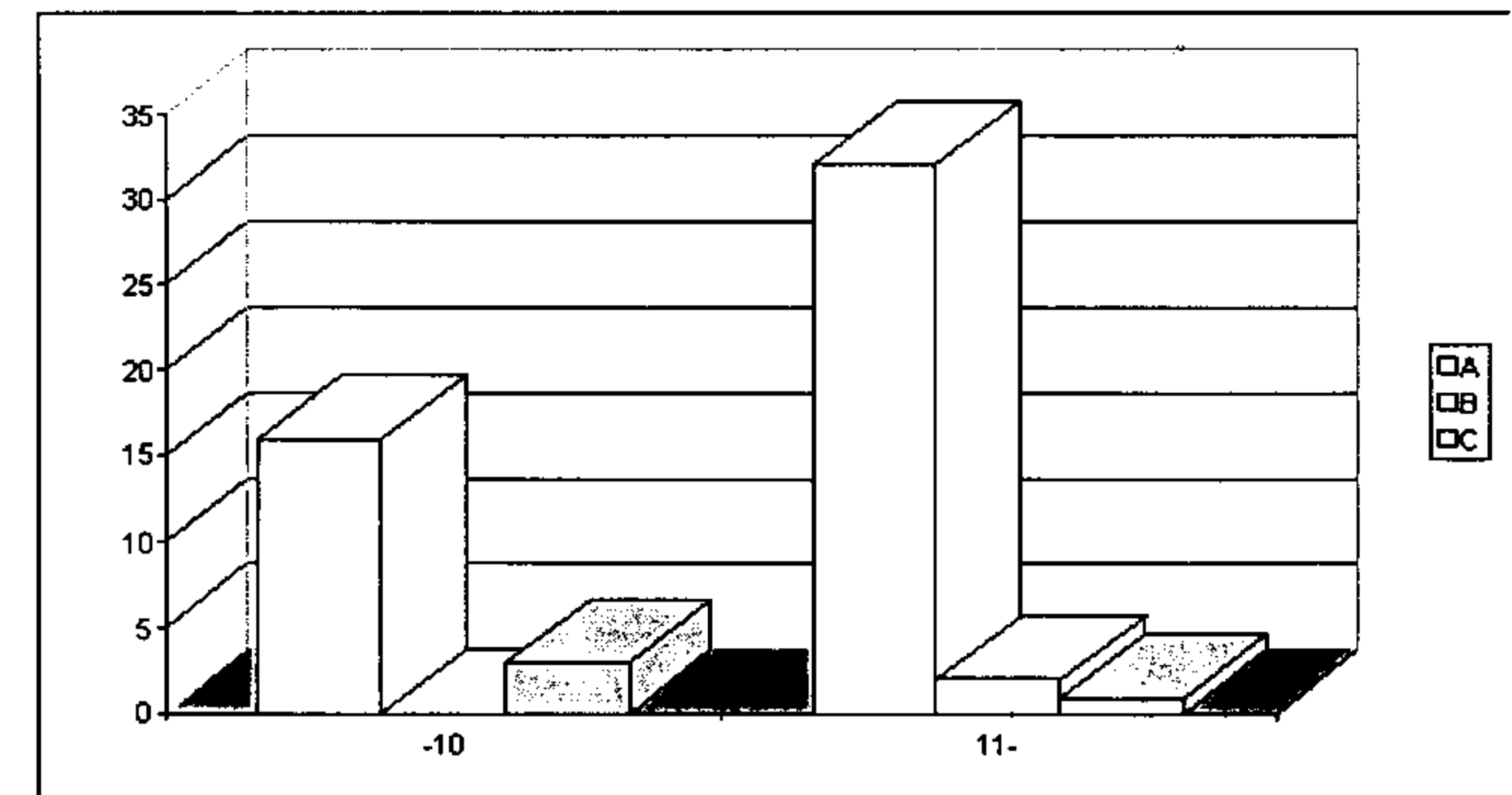
(34b)



(35a) Type 2

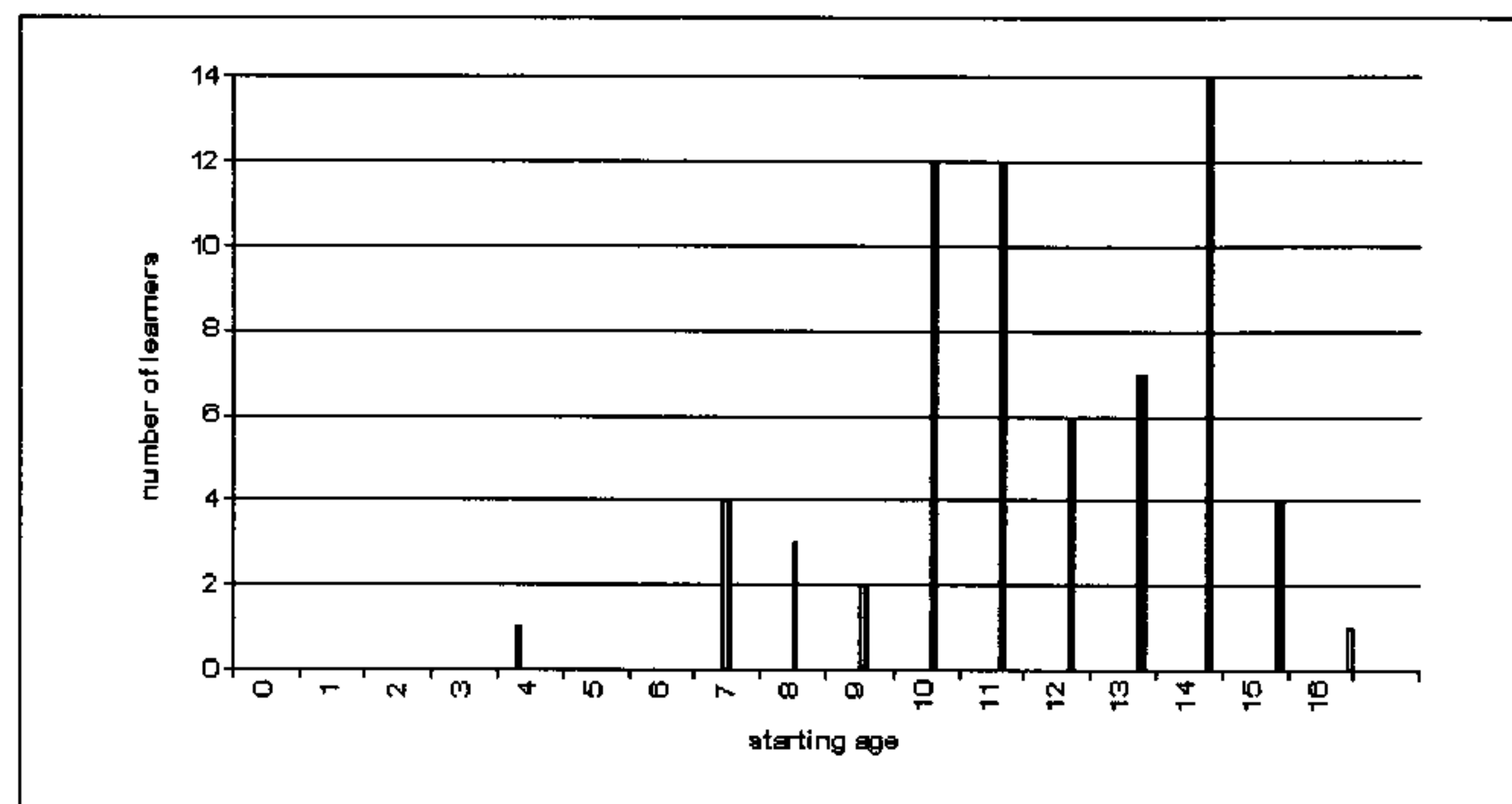
Age	Number of A answers	Number of B answers	Number of C answers
10 or younger	16	0	3
11 or older	32	2	1

(35b)



The diagram in (35b) resembles the one in (33b): in both age groups answer A is the most frequent one. The diagram below presents the distribution of the starting age of the subjects in the experiment.

(36)



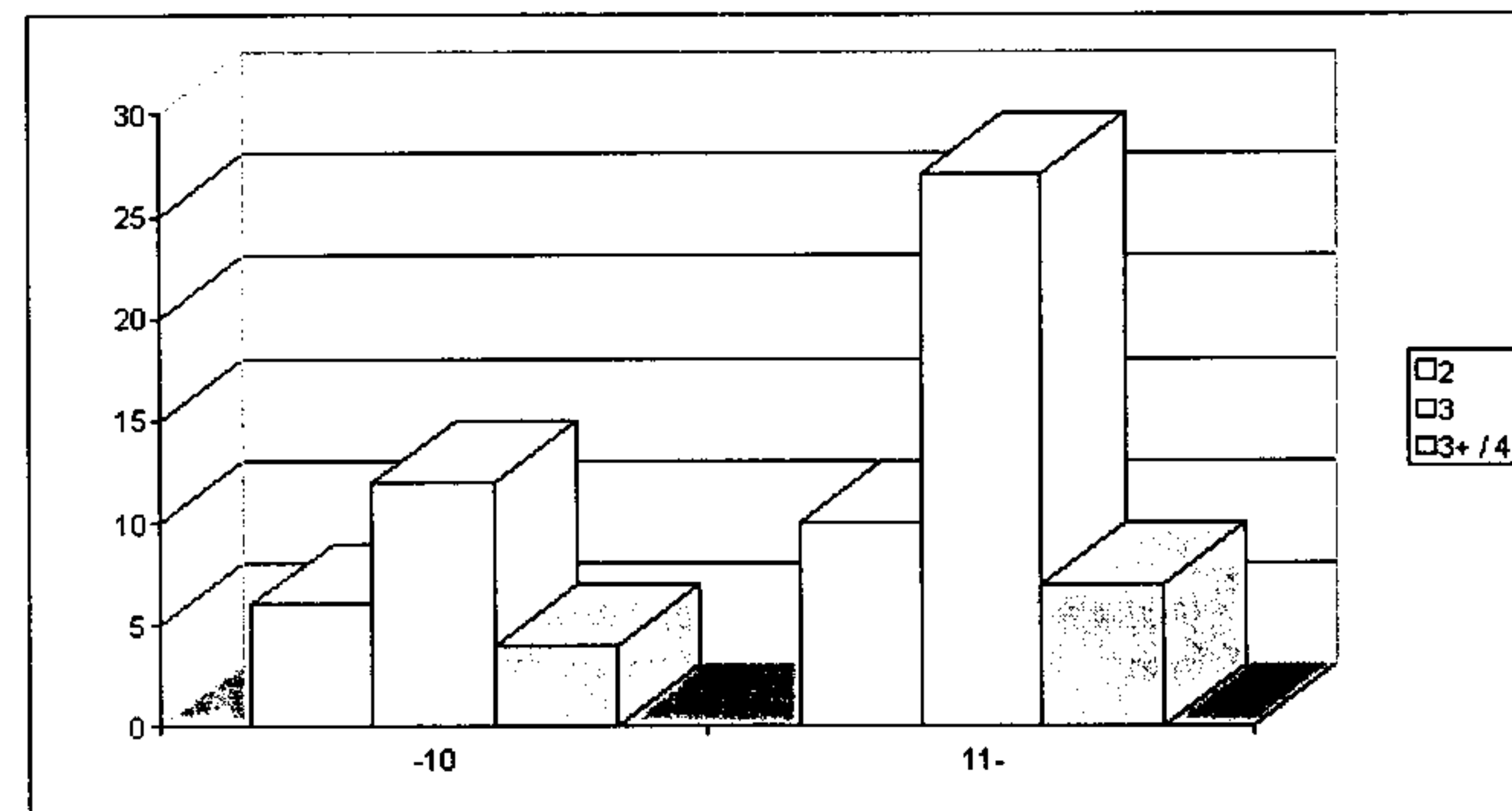
We also thought that it might be interesting to examine whether there was any correlation between examination grades and the starting age of language instruction. These are the results that we obtained:

(37)

Grade	Starting age: 10 or younger	Starting age: 11 or older
2	6	10
3	12	27
3+ or 4	4	7

The table demonstrates that there is no correlation between the two factors as the figures in the columns are proportional: the ones in the second one are roughly twice as big as in the first one. This means that regardless of the starting age the most frequent grade was 3, followed by 2 and 3+/4. The diagram below illustrates this.

(38)



7. Conclusion

We tested three crucial differences between the English and Polish systems of reflexive pronouns. In two cases (Type 2 and 3) we discovered statistically significant differences between the responses of Polish learners and native speakers of English. In Type 1 there was no difference. Let us now try to relate these results to the hypotheses concerning the role of UG in second language acquisition.

We believe that the best account of the responses to our questionnaire is in terms of Hypothesis B, i.e. the indirect access hypothesis.

As for sentences of Type 1, the responses of our subjects were identical to those of native speakers. This could be taken to mean that the L2 learners we investigated have acquired the relevant property of English grammar with the direct help of UG. The participation of UG in this view supported by the fact that Polish equivalents to constructions of Type 1 have different binding properties and thus cannot help in the processing of English data. In addition to that, L2 learners do not receive explicit instruction concerning these phenomena.

There is, however, an alternative explanation which we believe is more credible. So far we have been assuming that the Polish equivalent of an English sentence of Type 1 is the following:

- (39) *Jan kazał Piotrowi przygotować pokój dla siebie.*
 John told Peter (to) prepare room for self
 'John told Peter to prepare a room for himself.'

The reasoning then is that if our subjects resorted to Polish when analysing the English sentences that they were given, this would not lead to a correct analysis of the English data. However, we have evidence that Polish learners analyse English infinitival sentences of this type in a different way. Over six months after administering the questionnaire we carried out a follow-up study in which we asked the same subjects to translate a set of English sentences into Polish. The sentences included the example below:

(40) *John told Peter to prepare a room for Tom.*

The results that we obtained are very clear: 70% of the subjects translated the above using a *żeby* structure exemplified in (41), and only 30% used an infinitival structure like in (39).

(41) *Jan powiedział Piotrowi, żeby przygotował pokój dla Toma.*
John told Peter that (he) prepared room for Tom
'John told Peter to prepare a room for Tom.'

(41) is not ambiguous: the embedded clause is the binding domain. Thus, the responses of our subjects could be the same as those of native speakers because the binding properties of the relevant Polish sentence match those of the English one from the questionnaire.

As for sentences of Type 2, the answers could also be explained by the fact that our learners rely on Polish grammar. We assume the account of the subject orientation of Polish reflexives in terms of the PAP, repeated here for convenience:

(42) A proper antecedent for α is
(a) a subject β ; or
(b) any element β .

The results of our experiment could thus mean that our learners stick to the unmarked Polish value, which they select initially. This could be the case because there is little positive evidence in English that could trigger its resetting, there is no explicit teaching or negative evidence.

As for English "picture-noun" constructions, in the framework of Chomsky (1981) the accessibility condition is responsible for the well-formedness of the sentence in (43): the subject/SUBJECT of the embedded clause is not accessible for the reflexive, and thus the reflexive can be anteceded by the matrix subject:

(43) *John says that a book about himself is on sale.*

Given that the Polish counterpart of (43) is ill-formed, we might propose that the accessibility condition is parameterized, and that it does not apply to Polish. This would mean that in Polish all subjects are relevant for determining the binding domain. The Polish setting of the parameter would therefore yield a

smaller language in comparison with the English setting. If L2 learners adopt this unmarked value as their initial hypothesis, then, given the rarity of the structures in question switching to the English value will be very difficult.⁸

Summing up, we take the results of our study to indicate that Polish learners of English rely heavily on their mother tongue when processing English linguistic data, and that they can only access those properties of Universal Grammar that are exhibited in their native language.

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⁸ The marked character of "picture-noun" constructions is well-known: for example they allow non-c-commanding antecedents: *Max's eyes watched eagerly a new picture of himself in the paper.* **Max's eyes watched himself (in the mirror) with a new eagerness* (Reinhart – Reuland 1991: 289). The exceptional properties of reflexives contained in such constructions have prompted some researchers (e.g., Reinhart – Reuland 1991) to suggest, contrary to Chomsky (1981), that they should not fall under the principles of the Binding Theory, but should be treated as instances of logophoric dependencies.

If this analysis of English "picture-noun" constructions turns out to be correct, then the relevant parameter should specify the conditions under which a reflexive is allowed to function as a logophor. Its unmarked / initial setting would be that a reflexive is a strict anaphor, which is what we find in Polish.

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APPENDIX

Version A

1. Tom thought that Mark's book about Bill would be a best-seller.
a) The above sentences sounds GOOD. c) I am NOT SURE.
b) The above sentence sounds BAD.
2. I prefer for him would leave early.
a) GOOD b) BAD c) NOT SURE
3. Bill told John to prepare a room for himself.
a) Bill b) John c) Bill or John
4. Adam said that a book about himself was on sale.
a) GOOD b) BAD c) NOT SURE
5. The priest told Bill some disturbing truths about himself.
a) the priest b) Bill c) the priest or Bill
6. Ann bought those pictures of her sister.
a) GOOD b) BAD c) NOT SURE
7. Is it true that he hurt herself?
a) GOOD b) BAD c) NOT SURE
8. The instructor told the boy to build a hut for himself.
a) the instructor b) the boy c) the instructor or the boy
9. Mary thinks that pictures of herself are on display.
a) GOOD b) BAD c) NOT SURE
10. I want that she to invite Bill.
a) GOOD b) BAD c) NOT SURE
11. The psychiatrist told Bill some interesting things about himself.
a) the psychiatrist b) Bill c) the psychiatrist or Bill
12. Ann told Jane to cook dinner for herself.
a) Ann b) Jane c) Ann or Jane
13. Why did himself leave so early yesterday?
a) GOOD b) BAD c) NOT SURE
14. The President demanded that articles about himself should be published in all newspapers.
a) GOOD b) BAD c) NOT SURE
15. Bill asked John to wash the car.
a) GOOD b) BAD c) NOT SURE
16. After the examination the doctor told John some good news about himself.
a) the doctor b) John c) the doctor or John

Version B

1. Bill asked John to wash the car.
a) The above sentences sounds GOOD. c) I am NOT SURE.
b) The above sentence sounds BAD.
2. Bill told John to prepare a room for himself.
a) Bill b) John c) Bill or John
3. The psychiatrist told Bill some interesting things about himself.
a) the psychiatrist b) Bill c) the psychiatrist or Bill
4. I want that she to invite Bill.
a) GOOD b) BAD c) NOT SURE
5. Adam said that a book about himself was on sale.
a) GOOD b) BAD c) NOT SURE
6. Ann bought those pictures of her sister.
a) GOOD b) BAD c) NOT SURE
7. The instructor told the boy to build a hut for himself.
a) the instructor b) the boy c) the instructor or the boy
8. Tom thought that Mark's book about Bill would be a best-seller.
a) GOOD b) BAD c) NOT SURE
9. Is it true that he hurt herself?
a) GOOD b) BAD c) NOT SURE
10. After the examination the doctor told John some good news about himself.
a) the doctor b) John c) the doctor or John
11. Why did himself leave so early yesterday?
a) GOOD b) BAD c) NOT SURE
12. Mary thinks that pictures of herself are on display.
a) GOOD b) BAD c) NOT SURE
13. Ann told Jane to cook dinner for herself.
a) Ann b) Jane c) Ann or Jane
14. I prefer for him would leave early.
a) GOOD b) BAD c) NOT SURE
15. The President demanded that articles about himself should be published in all newspapers.
a) GOOD b) BAD c) NOT SURE
16. The priest told Bill some disturbing truths about himself.
a) the priest b) Bill c) the priest or Bill