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CLITIC DOUBLING AND DIFFERENTIAL OBJECT MARKING IN L1 AND L2 ROMANIAN

The main goal of the present paper is the examination of Clitic Doubling (CD) and Differential Object Marking (DOM) with direct objects in Romanian as L1 and L2 with Greek non native speakers. The conditions that led to the apperarance of the phenomena in Romanian and Modern Greek are presented, along with the theoretical background about their acquisition. We also present the results from a self-paced reading task about the use of these mechanisms in Romanian by native speakers and by Greek non native speakers in environments in which the two mechanisms are obligatory. We observe that Romanian native speakers, in all experimental conditions, are sensitive to (un)grammaticality, wihle advanced Greek non native sperakers exhibit similar behaviour to natives but they fail to reach their ecact level of proficiency.

Keywords: Clitic Doubling, Differential Object Marking, Modern Greek, Romanian

1. INTRODUCTION

The main goals of this paper are to examine C(litic) D(oubling) in correlation with D(ifferential) O(bject) M(arking) in Romanian as an L1 and L2,* as well as to explore the native and non-native speakers' grammaticality judgments in relation to their use. These phenomena are strongly correlated in contemporary Romanian because they coexist or they are both absent in many environments. This paper is divided into two parts: the theoretical background and the results from a self-paced reading task regarding the use of CD and DOM in L1 and L2 Romanian.

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2. THEORETICAL BACKGROUND

2.1. CD and DOM in Romanian: Forming the picture

CD[2] is a construction that exists in a variety of different languages and language families including the Balkan languages (cf. Kallulli & Tasmowski 2008 and references therein) and Spanish (cf. Leonetti 2008 and references therein). In all these languages, clitic pronouns can substitute a DP but these languages also have the possibility for the DP to co-occur in the same sentence as the clitic pronoun. The clitic is co-referential with the DP and agrees in *φ*-features and case with it. Crucially, not all languages that possess clitics display CD. For example, M(odern) (G)reek, Romanian and Spanish display CD while Italian and French do not:

[1] Ton vlepo ton Jani. (MG)
CL I-see the$_{acc}$ John$_{acc}$

[2] Îl văd pe Ion. (Romanian)
CL I-see DOM John

[3] Lo veo a Juan. [3] (Rioplatense Spanish)
CL I-see DOM John

[4] *Lo vedo (a) Gianni. (Italian)
CL I-see DOM John

[5] *Je le vois (à) Jean. (French)
I CL see DOM John

'I see John'

CD in Romanian (cf. Academia Română II 2008: 396–403; Anagnostopoulou 2006: 540–541; Cornilescu & Dobrovie-Sorin 2008; Farkas 1978; Hill & Tasmowski 2008) co-occurs for the most part with D(ifferential) O(bject) M(arking)[4] (cf. Academia Română II 2008: 396–401; Anagnostopoulou 2012: 14–16; Avram, Ciovârnache & Sevcenco 2016: 7–11; Cornilescu & Dobrovie-Sorin 2008; Hill &

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[1] In this paper, we will deal only with CD of direct objects leaving aside CD of indirect objects.

[3] Actually, in Standard European Spanish, CD with DPs other than definite pronouns is prohibited.

[4] The most known connection between CD and DOM is the famous *Kayne's generalization*: Richard Kayne, based primarily on French data, states that a language in which direct objects are not preceded by a preposition (i.e. DOM, or some other case-assigning device) cannot display CD because of the violation of the case filter. We will not enter into the details of this reasoning, but see the references given in this paper (and especially Tsakali & Anagnostopoulou 2008) for the reasons why Kayne's generalization cannot hold cross-linguistically.

Tasmowski 2008), i.e. the marking of the direct object with the preposition *pe*,[5] signaling some property of it (for discussion, see section 2.3). The two mechanisms have different diachronic developments (for details, see David 2014, 2015; Hill 2013; Tigău 2014; Von Heusinger & Onea 2008) but in contemporary standard Romanian they have collapsed for the most part. They appear in almost the same environments, while the environments of CD are a subset of the environments of DOM. The latter mechanism can be attested without the former but not vice versa.

Across languages, CD and DOM display different distributions and in the following section we will present the main environments in which they can appear in modern standard Romanian.

2.2. CD and DOM in Romanian: distribution

The following presentation is not exhaustive; for more details, see the works cited above. We mainly focus on the environments appearing in section 3, i.e. the ones that we included in our experimental task.

The contexts in which both CD and DOM are obligatory are with proper names denoting persons ([+human][6]) and with all definite (i.e. non indefinite) pronouns (we give below an example of the demonstrative pronoun *acesta* 'this one'):

[6] *(Îl) văd *(pe) Ion / Mickey Mouse/acesta. (proper names, definite pronouns)
CL I-see DOM John Mickey Mouse this.one
'I see John/Mickey Mouse/this one'

Both CD and DOM are ungrammatical with definite/indefinite DPs/bare NPs that have the feature [-animate], including pronouns that can only denote inanimate things:

[7] (*Le)-am spălat (*pe) (nişte) vase / vasele. (definite/indefinite DP, bare NP)
CL-AUX washed DOM some dishes dishes.the
'I washed (some/the) dishes'
[8] (*Îl) aleg (*pe) orice. ([-animate] indefinite pronoun)
CL I-choose DOM anything
'I choose anything'

[5] This preposition has not the semantics of a preposition though, in these contexts. In Romanian there is also the local preposition *pe* whose main sense is 'on' among others. The DOM marker evolved diachronically from this preposition (Latin *per* >*pre* >*pe*).

[6] Including cases in which other entities are perceived as having human traits, such as animals etc. (cf. example 6).

There are environments in which only DOM is obligatory, but CD is illicit. One such environment is with the interrogative pronoun *cine* 'who':

[9] (Maria) *(pe) cine (*l)-a văzut (Maria) ieri la mall ? (interrogative pronoun)
Maria DOM who CL-AUX seen Maria yesterday at mall
'Whom did Maria see yesterday at the mall?'

According to Dobrovie-Sorin (1990), Romanian displays two types of interrogative pronouns, *cine* 'who' and *care* 'which one'; the former does not accept CD, while the latter does. Both pronouns require DOM, since they can refer to [+animate]/[+human] referents:

[10] (Maria) *(pe) cine (*l)-a văzut (Maria) ieri la mall ?
Maria DOM who CL-AUX seen Maria yesterday at mall
'Whom did Maria see yesterday at the mall?'
[11] (Maria) *(pe) care *(l)-a văzut (Maria) ieri la mall ?
Maria DOM which CL-AUX seen Maria yesterday at mall
'Which one did Maria see yesterday at the mall?'

Since structures with interrogative pronouns involve movement, the pronoun moves from its initial position to the beginning of the sentence and leaves a trace behind. This trace is a variable, according to Dobrovie-Sorin (1990: 356), which has to be specified for case, it has to occupy the position of the argument of the verb and be bound by a quantifier, in our case, by the interrogative pronoun. The sentence in [10] is ungrammatical because the clitic absorbs the case from the variable and thus the definition for variables is violated. The quantifier cannot bind an element that is not a variable, because it lacks case. This is why the sentence in [10] becomes grammatical if we delete the clitic. On the other hand, structures like [11] are not quantificational ones, and as a result, the definition for variables is not violated and the clitic is grammatical.

From a pragmatics point of view, the sentences with *cine* are never connected to the context of use/the discourse and, as a result, this pronoun cannot accept CD. It is always non referential. On the other hand, sentences with *care* are always connected to the context of use/discourse and, as a result, this pronoun requires CD. It is always referential.

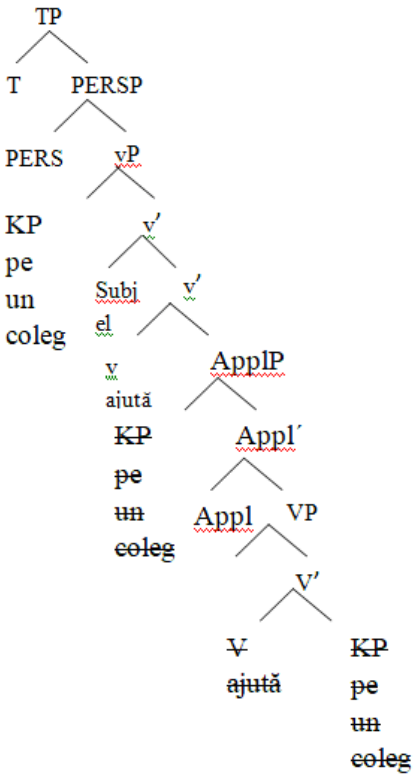
In the next subsection we briefly examine the syntactic properties of CD and DOM in Romanian.

2.3. CD and DOM in Romanian: syntactic properties

For the syntactic derivation of CD and DOM structures in Romanian, we adopt the analysis by Tigău (2020), since it is a recent analysis and it is quite detailed regarding the syntactic features of the elements involved.

According to Tigău (2020), all direct objects with CD and DOM in Romanian (which are animate), constitute a K(ase) P(hrase), which bears an unvalued interpretable feature of Person, which needs to be somehow valuated. This syntactic feature is the corresponding feature to the semantic feature of animacy and the pragmatic features of definiteness, specificity etc. Like their DOMed only counterparts, these direct objects scramble first to SpecApplP (Applicative Phrase) and check their uninerpretable Case feature against the v head. Unlike their DOMed only counterparts, they move from this position even further. Tigău posits a Pers(on) P(hrase) at the vP periphery. The direct object will move into a specifier of the vPand have its Person feature valued against the Person head. Nevertheless, having reached its position, the direct object acts as an intervener between the Tense head and the Subject DP in the sense that Tense cannot access the DP Subject for case assignment. Cliticisation would then be a way to remove the DP object blocking agreement between Tense and the Subject DP. The DP object will thus obligatorily cliticize on Tense, and not on v, enabling the DP subject to get its case checked (Tigău 2020: Chapter 4, section 1.4). This derivation can be seen in the following tree diagram of the sentence *El îl ajută pe un coleg* 'he is helping a colleague':

[12]



From their position, KPs may c-command the subject of the sentence and this is why in Romanian CD and DOM constructions, the subject may be the antecedent of the direct object, contrary to constructions without CD and DOM:

[13] *Părinţii lui$_i$ au ajutat un student$_i$ să-şi ia maşină. (Tigău 2020: Chapter 4, section 1.1)
parents.the his AUX helped a student to-for.him buy car
[14] Părinţii lui$_i$ l-au ajutat pe un student$_i$ să-şi ia maşină.
parents.the his CL-AUX helped DOM a student to-for.him buy car
'his parents helped a student to buy a car'

Next, we present briefly the conditions for CD in MG.

2.4. CD in MG

CD in MG is optional for the most part and it differs from other languages, such as Spanish or Romanian, in three aspects: first, it does not obey Kayne's generalisation, according to which the DP that is doubled need to be determined by a preposition as a case-assigning mechanism. Indeed, MG does not have a mechanism like DOM in Spanish and Romanian and CD is optional:

[15] (Tin) iδa tin Maria. (MG)
CL I.saw the$_{acc}$ Maria
[16] Am văzut-*(o) *(pe) Maria. (Romanian)
AUX seen-CL DOM Maria
[17] *(La) vi *(a) Maria. (River Plate Spanish)
CL I.saw DOM Maria
'I saw Maria'

In fact, in MG, CD is ungrammatical with a DP headed by a preposition:

[18] *Tu eδosa ston Jani ta vivlia.
CL$_{gen}$ I.gave to.the$_{acc}$ John$_{acc}$ the books
'I gave the books to John'

Second, CD in MG does not obey the animacy constraint that Romanian or Spanish do:

[19] O Janis (tin) efaje tin turta. (MG)
the John CL ate the$_{acc}$ cake
[20] *Ion l-a mâncat pe tort. (Romanian)
John AUX-CL eaten DOM cake

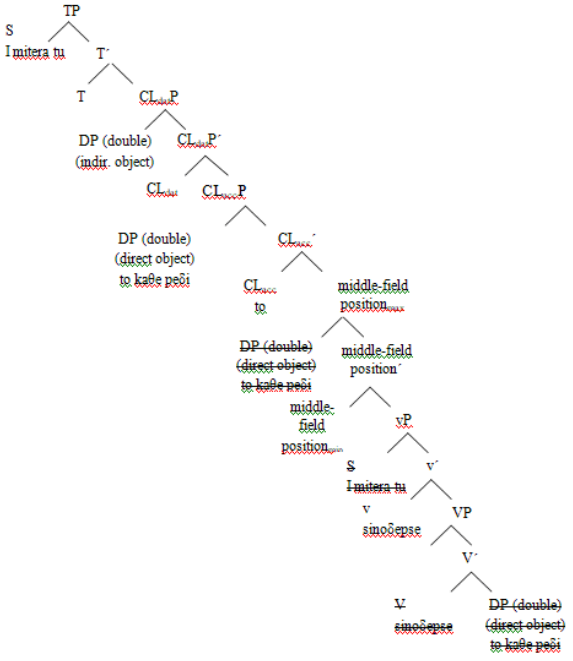
[21] *Juan lo comió al pastel. (Spanish)
John CL ate DOM.the cake
'John ate the cake'

Lastly, in MG, the interrogative pronoun *pços* 'who' corresponds to both the Romanian pronouns *cine* 'who'and *care* 'which one' and, as a result, it is optionally connected to the context of use/the discourse, i.e. it can be referential (see example [22]) or non referential (see example [23]), and the use of CD is optional either way (Tomić 2006: 326):

[22] Pçon apo tus filus su (ton) katalavenis kalitera?
which from the friends your CL you.understand better
'which one of your friends do you understand better?'
[23] Pçon (ton) θavun i kritici?
whom CL they.badmouth the critics
'whom did the critics badmouth?'

For MG CD constructions, we adopt the analysis by Sportiche (1996) and its most recent version by Angelopoulos (2019). According to this analysis, the doubled DPs in MG, before moving to CL(itic)$_{acc}$P(hrase), they move to a middle-field position, which is higher than the position in which the subject DP is reconstructed (Spec,vP). As a result, doubled DPs from this middle-field position may bind the subject DP and thus obviate weak cross-over effects:

[24] I mitera tu$_i$ to sinoδepse to kaθe peδi$_i$. (Angelopoulos 2019: 12)
the mother his CL escorted the every child
'his mother escorted every child'



Next, we turn to the theoretical background regarding the acquisition of CD and DOM in various languages as L2.

2.5. Acquisition of CD and DOM in L2

In this subsection we will briefly discuss previous findings regarding the acquisition of CD and DOM in various languages as L2.

Beginning with research that focuses on CD, Karadzovska (1999) found that English non native speakers of Macedonian of pre-intermediate to intermediate levels of proficiency have created functional projections for CD in their interlanguage but they have not fully acquired the semantic feature of definiteness that is essential for the distribution of CD with direct objects in Macedonian. This study confirms the Partial Transfer Hypothesis from L1 (Eubank 1993/94), since non natives have not activated all the relevant features that are associated with the functional category of clitics in L2 and their performance is deviant from the grammar of L2.

Parodi (2009) found that by English non native speakers of Spanish and MG of intermediate and advanced levels of proficiency, for the most part, rated the sentences given without taking into consideration the features of case or definiteness, features that are related with CD and CLLD in Spanish and MG. This finding supports the Failed Functional Features Hypothesis by Hawkins & Chan (1997), according to which parameters that are related to functional categories, like determiners, and are different from L1, cannot be reset and they remain with the values allocated by the L1, incorporated in certain morphological items.

Ungureanu (2014) found that her Romanian non native speaker of Spanish of advanced level of proficiency was 100% correct in her judgments/writing production: she systematically rated high/produced only structures with definite pronouns and [+animate] proper names with CD and she rated low/did not produce structures with full DPs and CD in Spanish. This study seems to support the Full Transfer/Full Access Hypothesis (Schwartz & Sprouse 1996), since the parameters related to the distribution of CD can be reset from the values allocated in L1, since there is access to UG after the critical period of language acquisition.

Turning now to research regarding DOM, Guijarro-Fuentes and Marinis (2007) and Guijarro-Fuentes (2011) found that English non native speakers of Spanish of low intermediate, high intermediate and advanced levels of proficiency performed worse than natives in all environments in which DOM can be used in Spanish. Non native speakers performed better when only animacy played a role for the distribution of DOM. Guijarro-Fuentes & Marinis (2007) support the Interface Hypothesis (Sorace 2006, 2011; Sorace & Filiaci 2006), since non natives face difficulties in acquiring a phenomenon that lies on the interface between syntax and semantics-pragmatics.

Papadopoulou et al. (2010) found that their Greek non native speakers of Turkish of beginner, low intermediate and high intermediate levels of proficiency seem to have acquired the word order in Turkish, which is influenced by the presence of DOM. They performed worse with the ungrammatical version of the sentences with direct object in first position than with its grammatical version and thus they seem to have acquired some sensitivity regarding the connection between morphological case and word order in Turkish. These facts seem to support the Full Transfer/Full Access Hypothesis although one cannot conclude that they have fully acquired the phenomenon.

Judy and Iverson (2020) found that Persian non native speakers of River Plate Spanish (a Spanish variety spoken mainly in Argentina and Uruguay, where DOM has very similar distribution with Romanian DOM) of very advanced level of proficiency performed worse than natives, although they did not show L1 transfer, since they dismissed DOM with inanimate specific DPs, contrary to L1 grammar and according to L2 grammar. Although animacy is a universal semantic feature accessible through UG and non natives possess the feature of specificity through their L1, they face difficulties reassembling the relevant features in L2 and they do not seem to acquire DOM in River Plate Spanish, a fact that seems to support the Feature Reassembly Hypothesis.

Montrul's (2019) study of Romanian non native speakers of Spanish of advanced and near-native levels of proficiency seems to support the Full Transfer/Full Access Hypothesis, given that non natives were able to reset the relevant parameters that dictate the distribution of DOM from L1 values to L2 values.

Montrul and Gürel (2015) examine the acquisition of DOM in Spanish by Turkish non native speakers of low intermediate and intermediate levels of proficiency. The researchers found that non natives were able to reset the relevant parameters that dictate the distribution of DOM in Spanish, despite the fact that animacy does not play a role in Turkish DOM. The L2 learners of this study were able to acquire the relevant features for Spanish DOM and thus the Full Transfer/Full Access Hypothesis seems to be supported.

Avram, Ciovârnache and Sevcenco (2016) examine the acquisition of DOM in Persian by Romanian non native speakers and in Romanian by Persian non native speakers. The two learner groups do not seem to have fully acquired DOM and its relevant features but, given their intermediate level of proficiency, this result might change if their proficiency level is improved. This study seems to support the Full Transfer/Full Access Hypothesis, since both learner groups, despite their intermediate level of proficiency, were able to reset the relevant parameters for DOM from their L1 to L2.

From the studies discussed in this subsection, we may observe that, despite the fact that some studies report successful resetting of the parameters involved,

there are studies which show that the phenomena of CD and DOM are quite difficult to acquire by L2 learners of various languages. There are L2 learners who do not seem to have fully acquired the phenomena, despite some of them being advanced or near-native learners in L2.

3. THE STUDY

In order to examine L2 learners' acquisition of CD and DOM in Romanian, we conducted three experimental tasks: a sentence repetition task, an on-line self-paced reading task and a grammaticality judgment task. In this paper, we will only present the results from the on-line self-paced reading task. In this task, we included environments in which the presence of CD and DOM is obligatory or ungrammatical. This task was completed by Greek L2 learners of Romanian and by native speakers of Romanian as a control group.

3.1. Participants

In this task, 51 native speakers of Romanian participated (43 female participants). All speakers were between 19 and 69 years of age (*M*: 27.26, *SD*: 16.16) and had all been born and raised in Romania, where they were living at the time of testing. They all were students or had a diploma from a university or college. None of them was bilingual.

The group of L2 learners included 23 Greek non native speakers of Romanian (7 female participants). All speakers were between 26 and 67 years of age (*M*: 48, *SD*: 10.6). They were all residing in Greece at the time of testing and they all started learning Romanian after the critical period, as adults, through instruction (26-3,744 hours, *M*: 1,234.91, *SD*: 1,158.35). Some of them continued learning Romanian by themselves, through books or special internet applications and by communicating with native speakers. Some of the L2 learners finished their university studies in Romania with Romanian as language of instruction (0-6 years, *M*: 3.30, *SD*: 2.65) and thus they also learnt Romanian at a Romanian university through special courses and through their studies and stay in Romania. All of them continue to have some contact with Romanian in their daily life (1-25 hours per week, *M*: 7.8, *SD*: 7.81).

In order to find out their level of proficiency in Romanian, the L2 learners were asked to complete a cloze test that was created by us, based on the relevant exercises for L2 learners of Romanian in Dafinoiu (2008). The cloze test consisted of 50 gaps, which non natives had to fill with functional words, such as articles, pronouns, clitics and prepositions. The test was standardised by 20 native speakers of Romanian.

Based on this test, non natives were categorised as being advanced learners of Romanian (their performance ranged from C1 level to near-native

level). However, due to their relative small number, we collapsed these levels and thus our L2 learners were not divided further based on their level of proficiency.

3.2. Materials

The goal of the self-paced reading task was to explore the comprehension and processing in real time of sentences which included obligatory or ungrammatical use of CD and DOM in Romanian. It included a total of 96 sentences, 48 critical sentences and 48 fillers.

All sentences were preceded by a context, which introduced the referent of the direct object to the discourse. We used the context in order for the sentences to be more natural for the participants and we used it symmetrically in all sentences of this task, even if we did not expect participants to take it into consideration for the distribution of CD and DOM, since in all experimental sentences, CD and DOM are obligatory or ungrammatical due to syntax and semantics, but not pragmatics. We also wanted to test whether non natives get influenced by the context to use CD and DOM, in cases in which they are actually ungrammatical. In MG CD is dictated mostly by pragmatics, since it is, for the most part, optional (see section 2.4).

The 48 critical sentences are grouped in four conditions[7], each condition having two versions, one grammatical and one ungrammatical. Each condition consisted of 6 grammatical sentences and 6 ungrammatical sentences.

The first condition deals with direct objects that are [+human] proper names and the CD/DOM mechanisms are obligatory. When they are absent, the sentence becomes ungrammatical. In this condition the type of the direct object along with the feature of animacy play a role for the distribution of CD and DOM:

[25] Context: În fiecare zi, Maria şi Ion se trezesc la aceeaşi oră pentru serviciu. Ei iau de obicei cafea la pachet de la aceeaşi cafenea.
'every day, Maria and Ion wake up at the same time for work. They usually get coffee on the go from the same coffee shop'

a. Maria | îl întâlneşte | pe Ion | la | cafenea | în | fiecare | zi. [+CD+DOM]
Maria CL meets DOM Ion at coffee.shop in every day
b. *Maria | întâlneşte | Ion | la | cafenea | în | fiecare | zi. [-CD-DOM]
Maria meets Ion at coffee.shop in every day
'Maria meets Ion at the coffee shop every day'

[7] The third condition of this experiment had to do with CLLD constructions and thus we will not present it in this paper. This is the reason we did not discuss CLLD constructions in the previous sections (for details, see Αργυρόπουλος 2022).

The second condition deals with direct objects that are [-animate] definite DPs and the CD/DOM mechanisms are ungrammatical. When they are present, the sentence becomes ungrammatical. In this condition the type of the direct object along with the feature of animacy play a role for the distribution of CD and DOM:

[26] Context: Marcel are un automobil şi ieri l-a dus la spălat. Azi dimineaţă, fratele lui, Cosmin, a urcat în automobil şi l-a întrebat:
'Marcel has a car and yesterday he took it to the car wash. Today in the morning, his brother, Cosmin, got in the car and asked him:'

a. Tu | ai dus | automobilul | la | spălat | de | data | aceasta ? [-CD-DOM]
you AUX taken car.the at wash from time this
b. *Tu | l-ai dus | pe automobil | la | spălat | de | data | aceasta ? [+CD+DOM]
you CL-AUX taken DOM car at wash from time this
'did you take the car to the car wash this time?'

The fourth condition deals with direct objects that are the interrogative pronoun *cine* 'who' and are placed before the verb. In this case, CD is ungrammatical, whereas DOM is obligatory, due to animacy. If the clitic is added, the sentence becomes ungrammatical, due to the pragmatic features of the pronoun *cine* 'who' (see section 2.2). In this condition, the type of direct object (pronoun) and animacy play a role for the distribution of CD and DOM:

[27] Context: Dragoş a văzut poliţia în cartier şi a întrebat ce s-a întâmplat. Ştie că hoţii vin foarte des în cartierul acesta:
'Dragoş saw the police in the neighbourhood and asked what happened. He knows that thieves come very often in this neighbourhood:'

a. Hoţii[8] | pe cine | au jefuit | în | acest | cartier | noaptea | trecută ? [-CD+DOM]
thieves.the DOM who AUX robbed in this neighbourhood night.the previous
b. *Hoţii | pe cine | l-au jefuit | în | acest | cartier | noaptea | trecută ? [-CD+DOM]
thieves.the DOM who CL-AUX robbed in this neighbourhood night.the previous
'whom did the thieves rob in this neighbourhood the previous night?'

[8]The placement of the subject of the sentence may be also after the verb in Romanian, but we decided to use this syntax in order for the sentence to be a more natural continuation for the context given and for reasons of symmetry of order between the main elements of the clause across conditions.

The following table summarises the conditions examined in the self-paced reading task:

Condition (items)	Type of direct object	Grammaticality of CD/DOM (items)
1 (12)	[+human] proper names	+CD+DOM (6), *-CD-DOM (6)
2 (12)	[-animate] definite DPs	-CD-DOM (6), *+CD+DOM (6)
4 (12)	interrogative pronoun *cine* 'who'	-CD+DOM (6), *+CD+DOM (6)

Table 1. The conditions of the self-paced reading task

The experiment was divided into two separate versions, which were completed in two separate sessions, in order for each participant to not see both the grammatical and the ungrammatical version of the sentences in the same session. The time that elapsed between the two sessions of the experiment that corresponded to its two versions was at least 7 days.

All sentences in this experiment were presented to the participants separated in 8 segments. Each segment corresponds to a word of the sentence, with the exceptions of the clitic and the (auxiliary) verb, the auxiliary verb and the past participle for verbs in the past, the verb and its reflexive pronoun and DOM marker and the direct object, which all form one segment. The sentences were segmented as shown in the examples [25]–[27].

The sentences of the first two conditions had the form of subject, verb (with or without clitic), direct object (with or without DOM) and then different adverbial and prepositional phrases followed. In the forth condition, the form of the sentences is subject, interrogative pronoun *cine* 'who' with DOM, verb (with or without a clitic) and then different adverbial and prepositional phrases followed.

After certain sentences (critical sentences or fillers), the participants read one extra affirmative sentence, for which they needed to choose if its content is true or false, according to the sentence they previously read. We introduced such affirmative sentences, in order to make sure that participants really do read the sentences and they do not just pass through the task, given that they completed it online. We introduced 32 total affirmative sentences, 16 for each version of the experiment. We give an example below:

[28] Sorana l-a acuzat pe Filip mereu pentru această faptă greşită. (experimental sentence)
Sorana CL-AUX accused DOM Filip always for this deed wrong
'Sorana always accuses Filip for this wrong deed'

Affirmative sentence:

Sorana nu l-a iertat pe Filip.
'Sorana did not forgive Filip'

In this case, the participants were expected to judge the content of this sentence as true.

In all conditions, which we will present, i.e. in condition 1, 2 and 4, the critical segment was the third one.

3.3. Procedure

This self-paced reading task was designed using the Gorilla experiment builder (https://gorilla.sc/) and it was conducted online. The participants used a PC or laptop to complete the task. They first saw the context of the sentence they were about to read. Once they read it, they pressed the space key on their keyboard to proceed to the next screen. On the next screen, the first segment of the sentence appeared and the participants could press the space key to proceed and read the next segments. Once the next segment appeared on the screen, the previous one disappeared. Once they reached the final segment and possibly read the affirmative sentence, they proceeded to the next critical sentence. To judge the affirmative sentence, the participants had to press A on their keyboard (from Romanian *adevărat* 'true') if the content of the affirmative sentence was true according to the previous sentence they read segment by segment, or F (from Romanian *fals* 'false') if the content of the affirmative sentence was false.

3.4. Data analysis

Based on the participants' responses to the T/F affirmative sentences, we excluded two participants from each group of speakers, due to the fact that they gave 20% or more wrong answers. In this way, the data from 49 native speakers and 21 non native speakers were ultimately analysed. Moreover, we excluded the reaction times of the participants for specific sentences, if they gave a wrong answer to the T/F affirmative sentences. The excluded data based on the T/F affirmative sentences were at a percentage of 1.79% of the total data for the native speakers and 2.98% of the total data for the non native speakers.

The RTs of the participants were measured in milliseconds. Based on the methodology in Trueswell and Tanenhaus (1994), we calculated the residual RTs for each segment and each participant, in order to exclude the possibility that the differences observed in RTs be influenced by the length of the different segments and the number of characters in each one. The statistical analysis of the data was conducted using the IBM SPSS Statistics software, version 25.

3.5. Predictions

Based on the literature and the features of CD/DOM which are tested by the self-paced reading task, we can make the following predictions regarding the acquisition of CD and DOM by Greek non native speakers of Romanian:

- According to the Full Transfer/Full Access model (Schwarz & Sprouse 1996), non native speakers of advanced proficiency level are expected to acquire successfully CD and DOM in Romanian, as they are able to reset the relevant parameters from the values they have in MG to the values they have in Romanian. More specifically, these parameters are 1) the animacy feature, which is connected to Romanian CD/DOM but not to MG CD, 2) the syntactic Person feature, which is present in Romanian DOM but absent in MG, due to lack of DOM, 3) the syntactic distinction between animate proper names (which require both CD and DOM) and common nouns (which, if they are animate, CD and DOM is optional) in Romanian, but not in MG, in which CD is optional for the most part, 4) the non referential character of the interrogative pronoun *cine* 'who' in Romanian (it disallows CD), while in MG CD is optional with the corresponding pronoun *pços* 'who', which may be referential or non referential (see sections 2.2, 2.3 and 2.4);
- According to the Feature Reassembly Hypothesis (Lardiere 2008, 2009), non native speakers of advanced proficiency level are not expected to acquire successfully CD and DOM in Romanian, as they experience difficulties in reassembling the relevant features from MG to Romanian, which differ between the two languages and which we outlined in the previous paragraph;
- According to the Interface Hypothesis (Sorace 2006, 2011; Sorace & Filiaci 2006), non native speakers of advanced proficiency level are not expected to acquire successfully CD and DOM in Romanian, since these phenomena are connected to various syntactic, semantic and pragmatic features and lie on the interfaces between syntax and semantics and syntax and pragmatics.

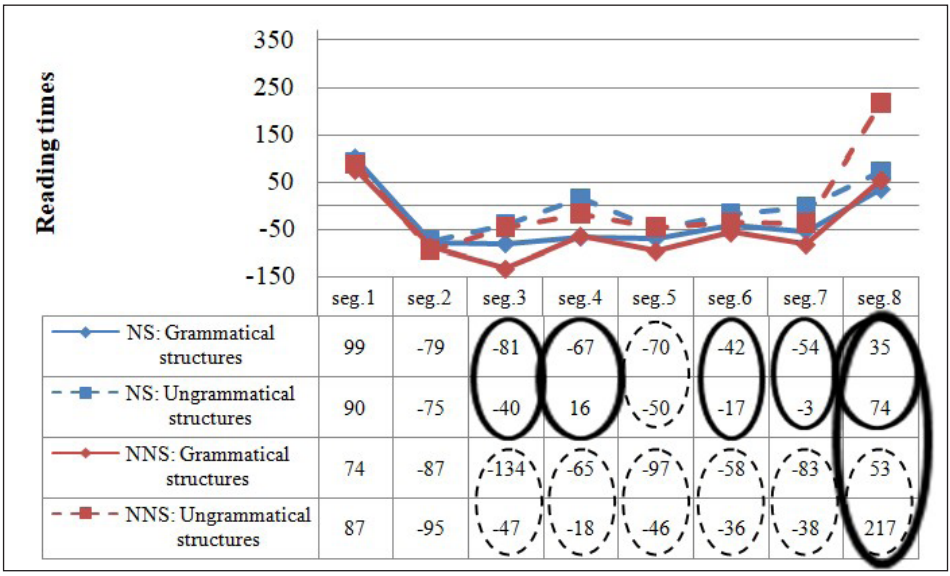
3.6. Results

In this section, we will present the results from the self-paced reading task, both for native and non native speakers. We will present the results from

the Repeated Measures ANOVA tests we conducted for each condition and for each segment of the sentences separately. We used the grammaticality of the sentences as within subject factor and the group of speakers (natives-non natives) as between subject factor. Furthermore, we present the differences, where they exist, between the R(eading) T(imes) of the two groups of speakers for each segment independently of grammaticality.

Moreover, we conducted exploratory *t* tests, within each group of speakers, independently of the results of the ANOVA tests, because of the smaller number of non natives in relation to natives and because of non native speakers' variation in RTs (see section 3.7). In the graphs below, we illustrate the statistically different RTs based on the ANOVA tests and the *t*-tests conducted, using continuous circles, while we illustrate the extra statistically different RTs, which are shown by ANOVA tests only, using dotted circles.

The RTs of both native and non native speakers for the first condition of the experiment, with human proper names as direct object, can be seen in Graph 1:



	seg.1	seg.2	seg.3	seg.4	seg.5	seg.6	seg.7	seg.8
NS: Grammatical structures	99	-79	-81	-67	-70	-42	-54	35
NS: Ungrammatical structures	90	-75	-40	16	-50	-17	-3	74
NNS: Grammatical structures	74	-87	-134	-65	-97	-58	-83	53
NNS: Ungrammatical structures	87	-95	-47	-18	-46	-36	-38	217

Graph 1. RTs for native and non native speakers, condition 1

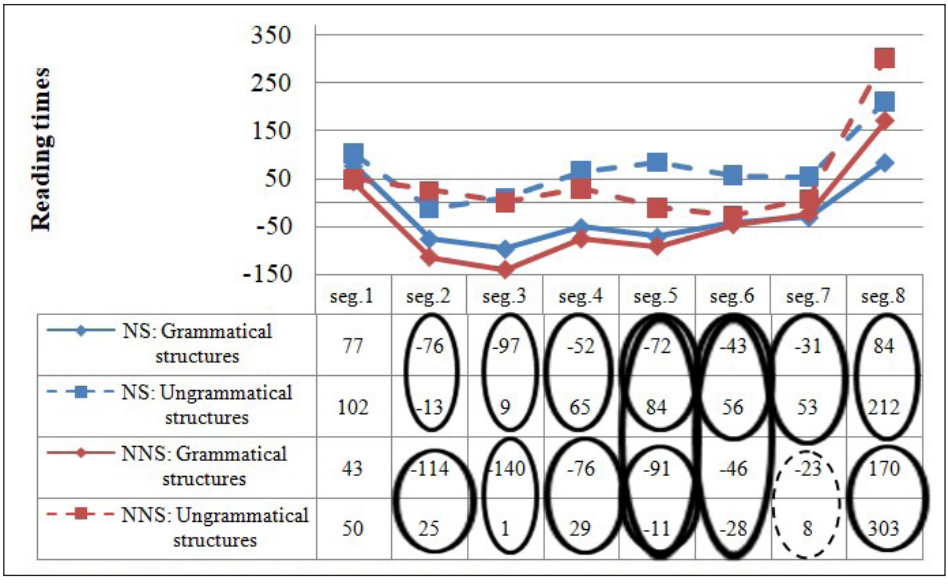
For the first two segments, as expected, the ANOVA tests found no statistically significant interaction between grammaticality and speakers. For the critical segment (third) and up to the eighth and final segment, the ANOVA tests showed significant interaction between grammaticality and speakers (third segment: $F(1,68) = 9.865$, $p = .002$, $\eta^2 = .127$, forth segment: $F(1,68) = 14.114$, $p < .001$, $\eta^2 = .172$, fifth segment: $F(1,68) = 7.988$, $p = .006$, $\eta^2 = .105$, sixth segment:

$F(1,68) = 6.078$, $p = .016$, $\eta^2 = .082$, seventh segment: $F(1,68) = 13.306$, $p = .001$, $\eta^2 = .164$, eighth segment: $F(1,68) = 9.988$, $p = .002$, $\eta^2 = .128$) and no statistically significant difference between the interaction of grammaticality for each group of speakers, meaning that both native and non native speakers are sensitive to grammaticality for these segments, i.e. they present statistically higher RTs for the ungrammatical structures, compared to the grammatical ones.

However, the exploratory *t* tests we conducted within each group of speakers showed that, for the fifth segment, native speakers were not sensitive to grammaticality, i.e. the grammaticality effect faded out during this segment ($t(48) = -1.890$, $p = .065$), while, for non native speakers, they showed that this group was not sensitive to grammaticality during the entire processing for this condition, i.e. for segments three to eight (third segment: $t(20) = -1.701$, $p = .104$, forth segment: $t(20) = -1.767$, $p = .092$, fifth segment: $t(20) = -1.728$, $p = .099$, sixth segment: $t(20) = -1.014$, $p = .322$, seventh segment: $t(20) = -1.626$, $p = .120$, eighth segment: $t(20) = -1.743$, $p = .097$).

The group variable in the first condition for segments one to seven was not statistically significant, i.e. the RTs of the two groups of speakers did not differ statistically significantly independently of grammaticality, except for the eighth and final segment, where the ANOVA test showed that native speakers are faster than non native speakers ($F(2,68) = 4.389$, $p = .040$, $\eta^2 = .061$).

The RTs of both native and non native speakers for the second condition of the experiment, with inanimate definite DPs as direct object, can be seen in Graph 2:



	seg.1	seg.2	seg.3	seg.4	seg.5	seg.6	seg.7	seg.8
NS: Grammatical structures	77	-76	-97	-52	-72	-43	-31	84
NS: Ungrammatical structures	102	-13	9	65	84	56	53	212
NNS: Grammatical structures	43	-114	-140	-76	-91	-46	-23	170
NNS: Ungrammatical structures	50	25	1	29	-11	-28	8	303

Graph 2. RTs for native and non native speakers, condition 2

For the first segment, as expected, the ANOVA test found no statistically significant interaction between grammaticality and speakers. For the second segment, before they realise the ungrammaticality, both groups of speakers were shown to have statistically significantly higher RTs for the ungrammatical structures compared to the grammatical ones ($F(1,68) = 33.652$, $p < .001$, $\eta^2 = .331$) but in a different way, since the interaction between grammaticality and each group of speakers was shown to be statistically different ($F(1,68) = 4.862$, $p = .031$, $\eta^2 = .067$). This result can be explained by the fact that in the ungrammatical structures, in the second segment, the clitic is added, whereas it is absent from the grammatical version of the structures (see section 3.2 and 3.7). The group variable for this segment was not statistically significant, i.e. the RTs of the two groups of speakers did not differ statistically significantly independently of grammaticality.

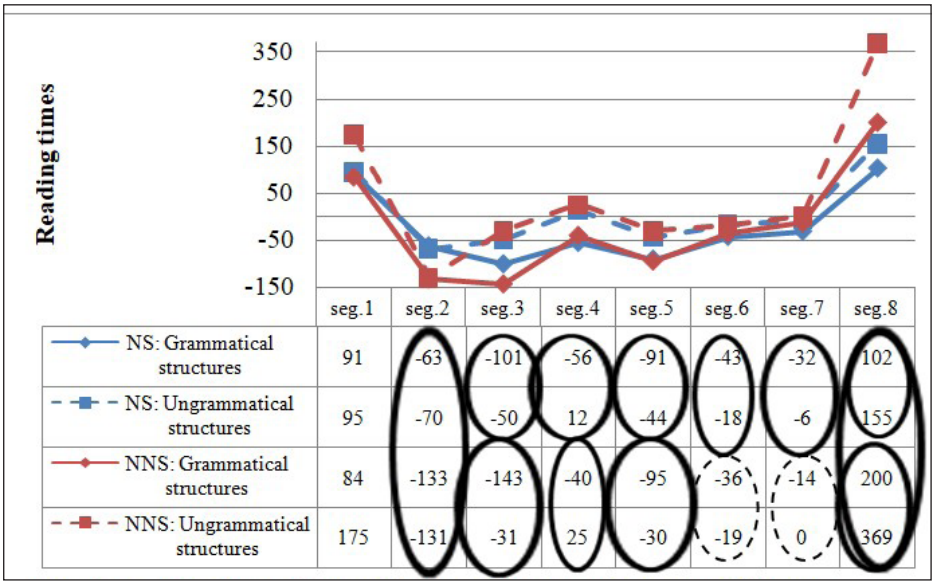
For the critical segment (third) and up to the eighth and final segment, the ANOVA tests showed significant interaction between grammaticality and speakers (third segment: $F(1,68) = 24.225$, $p < .001$, $\eta^2 = .263$, forth segment: $F(1,68) = 24.444$, $p < .001$, $\eta^2 = .264$, fifth segment: $F(1,68) = 22.649$, $p < .001$, $\eta^2 = .250$, sixth segment: $F(1,68) = 13.758$, $p < .001$, $\eta^2 = .168$, seventh segment: $F(1,68) = 9.074$, $p = .004$, $\eta^2 = .118$, eighth segment: $F(1,68) = 18.439$, $p < .001$, $\eta^2 = .213$) and no statistically significant difference between the interaction of grammaticality for each group of speakers for the segments three to five and seven to eight, meaning that both native and non native speakers are sensitive to grammaticality for these segments.

For the sixth segment, the difference between the interaction of grammaticality for each group of speakers was found to be statistically different ($F(1,68) = 6.892$, $p = .011$, $\eta^2 = .092$). This result can be explained by the fact that, according to the *t* tests we conducted within each group of speakers, native speakers were sensitive to grammaticality for this segment ($t(48) = -5.688$, $p < .001$), while non native speakers were not ($t(20) = -.675$, $p = .507$).

All the above results are corroborated by the exploratory *t* tests we conducted within each group of speakers, except for the seventh segment, for which the *t* test within the non native speakers group did not show any grammaticality effect ($t(20) = -.938$, $p = .359$).

The group variable in the second condition for segments two to four and seven to eight was not statistically significant, i.e. the RTs of the two groups of speakers did not differ statistically significantly independently of grammaticality. For the fifth and the sixth segment, the ANOVA test showed that non native speakers are faster than native speakers (fifth segment: $F(2,68) = 5.760$, $p = .019$, $\eta^2 = .078$, sixth segment: $F(2,68) = 9.378$, $p = .003$, $\eta^2 = .121$).

The RTs of both native and non native speakers for the forth condition of the experiment, with the interrogative pronoun *cine* 'who' as direct object, can be seen in Graph 3:



	seg.1	seg.2	seg.3	seg.4	seg.5	seg.6	seg.7	seg.8
NS: Grammatical structures	91	-63	-101	-56	-91	-43	-32	102
NS: Ungrammatical structures	95	-70	-50	12	-44	-18	-6	155
NNS: Grammatical structures	84	-133	-143	-40	-95	-36	-14	200
NNS: Ungrammatical structures	175	-131	-31	25	-30	-19	0	369

Graph 3. RTs for native and non native speakers, condition 4

For the first segment of this condition, the ANOVA tests found statistically significant interaction between grammaticality and speakers ($F(1,68) = 5.982$, $p = .017$, $\eta^2 = .081$), but in a different way, since the interaction between grammaticality and each group of speakers was shown to be statistically different ($F(1,68) = 5.041$, $p = .028$, $\eta^2 = .069$). This result can be explained by the conducted *t* tests within each group of speakers, which showed that, in fact, non native speakers only tend towards a statistically significant difference ($t(20) = -1.922$, $p = .069$), while native speakers are far from a statistically significant difference ($t(48) = -.251$, $p = .803$).

For the second segment, as expected, the ANOVA tests found no statistically significant interaction between grammaticality and speakers. For the critical segment (third) and up to the eighth and final segment, the ANOVA tests showed significant interaction between grammaticality and speakers (third segment: $F(1,68) = 14.911$, $p < .001$, $\eta^2 = .180$, forth segment: $F(1,68) = 28.693$, $p < .001$, $\eta^2 = .297$, fifth segment: $F(1,68) = 21.568$, $p < .001$, $\eta^2 = .241$, sixth segment: $F(1,68) = 3.997$, $p = .050$, $\eta^2 = .056$, seventh segment: $F(1,68) = 4.980$, $p = .029$, $\eta^2 = .068$, eighth segment: $F(1,68) = 4.980$, $p = .029$, $\eta^2 = .068$) and no statistically significant difference between the interaction of grammaticality for each group of speakers for segments three to seven, meaning that both native and non native speakers are sensitive to grammaticality for these segments.

For the eighth segment, the difference between the interaction of grammaticality for each group of speakers was found to be statistically different

($F(1,68) = 4.728$, $p = .033$, $\eta^2 = .065$). This result can be explained by the fact that, according to the *t* tests we conducted within each group of speakers, the statistical difference between grammatical and ungrammatical structures is higher for non native speakers ($p = .008$), than native speakers ($p = .041$). Moreover, the quantitative difference between the grammatical and ungrammatical sentences is higher for non native speakers than for native speakers (see section 3.7).

All the above results are corroborated by the exploratory *t* tests we conducted within each group of speakers, except for the sixth and seventh segment, for which the *t* test within the non native speakers group did not show any grammaticality effect (sixth segment: $t(20) = -.625$, $p = .539$, seventh segment: $t(20) = -.778$, $p = .446$).

The group variable in the forth condition for segments one and three to seven was not statistically significant, i.e. the RTs of the two groups of speakers did not differ statistically significantly independently of grammaticality. For the second segment, the ANOVA test showed that non native speakers are faster than native speakers ($F(2,68) = 10.962$, $p < .001$, $\eta^2 = .139$), while, for the eighth segemnt, non native speakers are slower than native speakers ($F(2,68) = 4.669$, $p = .034$, $\eta^2 = .064$).

Regarding the statistical correlations between the participants' original and residual RTs (dependent variables) with the independent variables of age, hours of instruction in Romanian, years of studies in Romanian, proficiency level and use of Romanian in daily life, as well as between the grammaticality effect[9] for the non native speakers and the above independent variables, we can make the following observations: for native speakers, their age was not found to correlate statistically significantly with their residual RTs, but it correlated with their original RTs: the older they were, the slower they read the sentences (Pearson correlation: .259, $p < .001$). This correlation was also found for each condition and type of sentence (grammatical/ungrammatical) separately.

Regarding non native speakers, for the first condition, with human proper names as a direct object, their age positively correlates with their original RTs (Pearson correlation: .204, $p< .001$) and it negatively correlates with their proficiency level (Pearson correlation: -.096, $p< .001$) and use of Romanian in daily life (Pearson correlation: -.167, $p< .001$). This means that, the older the non native speakers were, the slower they were in reading the sentences given, but the more advanced was their proficiency level and the more they used Romanian in their daily life, the faster they were in reading.

[9] The grammaticality effect for the non native speakers was calculated by subtracting their residual RTs for the grammatical sentences from their residual RTs for the ungrammatical sentences. The higher the result, the better non natives conceived the ungrammaticality of the sentences they read.

For residual RTs, there are no correlations between this dependent variable and the independent variables for the first condition in general. However, for the grammatical structures only, negative correlations between residual RTs and non native speakers' studies in Romania (Pearson correlation: -.096, p = .005) and between residual RTs and their proficiency level (Pearson correlation: -.070, p = .043) were found.

Regarding the grammaticality effect, for the first condition, there are positive correlations between non native speakers' grammaticality effect and their studies in Romania (Pearson correlation: .126, p = .002) and between their grammaticality effect and their age (Pearson correlation: .117, p= .003). The correlation with their age can be explained, given the fact that non native speakers' age is found to correlate with the hours of Romanian lessons they attended (Pearson correlation: .182, p = .005) and with the duration of studies in Romania (Pearson correlation: .377, p < .001).

For the second condition, with inanimate definite DPs as direct object, we found the same correlations as in the first condition, for the total data (original RTs-age: Pearson correlation: .163, p< .001, original RTs-use of Romanian: Pearson correlation: -.150, p< .001, original RTs-proficiency level: Pearson correlation: -.096, p< .001) and separately for the grammatical and the ungrammatical structures.

For the forth condition, with the interrogative pronoun *cine* 'who' as direct object, non native speakers' age positively correlates with their original RTs (Pearson correlation: .183, p< .001) and it negatively correlates with their use of Romanian in daily life (Pearson correlation: -.114, p< .001). Both of these correlations are observed separately for grammatical and ungrammatical structures.

The residual RTs do not correlate with any independent variable for the forth condition in general, but, for the ungrammatical sentences only, they correlate positively with the non native speakers' age (Pearson correlation: .082, p = .016). The correlation with age can be explained, as mentioned above, by its correlation with the hours of Romanian lessons attended by non native speakers and with their studies in Romania.

From these data, we can conclude that age makes our speakers, natives and non natives, slower in reading, but it can help non native speakers conceive the ungrammaticality of the sentences better, since age positively correlates with the duration of their studies in Romania and the duration of Romanian lessons they attended. Moreover, the non native speakers' duration of studies in Romania, their proficiency level and their use of Romanian in daily life can help them in reading and processing the sentences faster.

3.7. Discussion

For native speakers, the results from the presented conditions of the self-paced reading task are quite clear: they were sensitive to ungrammaticality, as expected, for all 3 conditions (with human proper names, with inanimate definite DPs and with the interrogative pronoun *cine* 'who') and the grammaticality effect lasted for the majority of the segments processed in real time, sometimes even for the entire processing of the sentence. For all conditions and almost all segments after the critical one, they presented RTs that were higher for the ungrammatical structures than the RTs for the grammatical structures.

On the other hand, non native speakers, in general, like native speakers, are sensitive to the ungrammaticality of the sentences read in real time and this fact is illustrated by their statistical differences between the RTs in grammatical and ungrammatical sentences: in ungrammatical sentences, they presented higher RTs than in grammatical sentences. However, this does not hold equally for all conditions and to the same degree as the sensitivity that native speakers exhibited.

In the second and forth conditions of the experiment, with inanimate definite DPs and the interrogative pronoun *cine* 'who', we observe that the grammaticality effect influences non natives upon the critical segment and the next two segments, like native speakers. However, this effect fades out and it becomes less strong after the fifth segment, i.e. during the sixth and seventh segments, according to the exploratory *t* tests we conducted within the non native speakers' group. The effect reemerges during the eighth and final segment, because of the fact that non natives wrap up the whole sentence during the final segment. The grammaticality effect does not fade out, in general, for native speakers, as we discussed in the previous paragraph.

The fact that both native and non native speakers present higher RTs for the ungrammatical version of the sentences compared to the grammatical version, during the second segment of the second condition, i.e. before they reach the critical third segment, is explained by the fact that the clitic is present in the ungrammatical version but it is absent in the grammatical version. We believe that the presence of the clitic influences the reading of the sentences in real time and it creates an additional processing burden, since clitics are anaphoric expressions and the participants may try, when they reach clitics, to connect them to a referent previously mentioned in the discourse.

Moreover, the quantitative mean difference between the grammatical and the ungrammatical sentences is statistically significantly different and we can observe that it is higher for non native speakers than for native speakers (native speakers grammatical sentences: -76, ungrammatical sentences: -13 (difference: 63), non native speakers grammatical sentences: -114, ungrammatical

sentences: 25 (difference: 139)). This result shows that even clitics alone pose greater difficulties for non native speakers compared to natives during real time processing.

For the seventh segment of the second condition, the comparison between the RTs for grammatical and ungrammatical sentences within each group of speakers shows, contrary to ANOVA tests, that native speakers are sensitive to ungrammaticality, while non native speakers are not. As mentioned in section 3.6, this result may have to do with the larger number of native speakers in our sample, compared to non native speakers. Moreover, non native speakers' RTs present greater variation than native speakers' RTs. For this particular segment, six of the total 21 non natives presented higher RTs for the grammatical sentences than for the ungrammatical sentences.

The same holds for the sixth and seventh segments of the forth condition, in which the comparison between the RTs for grammatical and ungrammatical sentences within each group of speakers shows, contrary to ANOVA tests, that native speakers are sensitive to ungrammaticality, while non native speakers are not. For the sixth segment, seven of the total 21 non natives presented higher RTs for the grammatical sentences than for the ungrammatical sentences, while for the seventh segment, this was true for ten (almost half) of the total 21 non natives.

For the second condition, the ANOVA tests showed that, for the fifth and sixth segments, the non native speakers' RTs are lower than the native speakers' RTs, during real time processing. For this reason, we conducted an additional independent samples *t* test to compare the RTs of the two groups. The results showed that, for the ungrammatical sentences only, non natives are faster than natives; for the grammatical sentences, there were no statistically significant differences. This means that, only for the ungrammatical sentences, non natives were faster than natives during the segments after the critical one and this might be an indication that native speakers are more influenced by the ungrammaticality effect than non native speakers and this is why the processing of the former group is slower than the processing of the latter group.

Contrary to the second and forth conditions, in the first condition, with human proper names as direct object, non natives did not exhibit any grammaticality effect, according to the exploratory *t* tests which we conducted. This is true for all segments in this condition. However, due to the fact that the ANOVA tests showed no statistically significant difference of the interaction of grammaticality between the two groups of speakers for segments three to eight, we can conclude that non native speakers, like native speakers, were in fact sensitive to ungrammaticality in this condition, but their sensitivity is not as prominent and strong as in the rest of the experimental conditions.

For the third segment, ten (almost half) out of 21 non native speakers presented higher RTs for the grammatical than for the ungrammatical sentences. This number is, respectively, for the forth segment, nine out of 21 non native speakers; for the fifth segment, twelve out of 21 non native speakers; for the sixth segment, eight out of 21 non native speakers; for the seventh segment, seven out of 21 non native speakers; for the eighth segment, ten out of 21 non native speakers.

For the same reasons discussed above, non native speakers, like native speakers, were in fact sensitive to ungrammaticality for the seventh segment of the second condition and for the sixth and seventh segments of the forth condition, but their sensitivity is not as prominent and strong as in the rest of the segments.

The less prominent and strong sensitivity, which non native speakers exhibited in the first condition, with human proper names as direct object, may be explained by the fact that, while in Romanian, as seen in section 2.2, CD and DOM are both obligatory with this kind of direct object, in MG this is not the case. MG CD is optional with human proper names (see section 2.4). If this line of reasoning is on the right track, then it means that, although non native speakers have acquired the semantic feature of animacy as directly related to CD and DOM in Romanian (see section 2.2), they have not exactly reached native speakers' level regarding this aspect of CD and DOM.

We believe that the same holds for the syntactic feature of CD and DOM in Romanian regarding the distinction between animate proper names, on the one hand, and common nouns, animate or inanimate, on the other hand: in Romanian, animate proper names require both CD and DOM (see example [6]), while common nouns take optional CD and DOM (see example [29]). Moreover, these types of nouns differ as far as their determiners are concerned: animate proper names do not accept the definite article (see example [30]), while common nouns obligatorily take the definite article (see example [31]). In MG, there is no such distinction, since CD is optional both with proper names and common nouns (see example [32]) and they both require the definite article (see example [33]):

[29]Maria (l)-a văzut (pe) studentul ei.
Mary CL-AUX seen DOM student.the her
'Mary saw her student'
[30] Ion(*ul) a văzut un câine.
John.the AUX seen a dog
'John saw a dog'
[31]Magazinul*(ul) este închis.
shop.the is closed
'the shop is closed'

[32] O Janis (tin) iδe ti Maria/ ti fili tu.
the John CL saw the Mary the friend his
'John saw Mary/his friend'
[33]*(O) Janis/*(O) fititis irθe.
the John the student came
'John/the student came'

However, we stress the fact that these results are based on exploratory *t* tests only, which we conducted within the non native speakers' group, despite the results of the ANOVA tests, which showed that there was no statistically significantly different interaction between grammaticality with each group of speakers. As a consequence, one needs to be careful when interpreting these results, as they are in need of further examination with a larger sample of Greek non native speakers of Romanian.

For the eighth and final segment of the first condition, the ANOVA test showed that native speakers are faster than non native speakers, since the latter need more time to process the whole sentence which they just read, while doing a wrap up.

From the discussion so far, it seems that non native speakers have acquired the semantic feature of animacy and the syntactic distinction between animate proper names and common nouns, since they are sensitive to ungrammaticality in structures with human proper names and inanimate common nouns, albeit this sensitivity is stronger with inanimate common nouns than with human proper names.

As far as the forth condition of the experiment is concerned, with the interrogative pronoun*cine* 'who' as direct object, the results showed than non native speakers have acquired the properties of the pronoun and they know that it disallows CD, since this structure is quantificational and the pronoun is non referential: it is not connected to the context given. However, it requires DOM, because this pronoun bears the [+animate] feature (see section 2.2).

In MG, on the other hand, the corresponding interrogative pronoun *pços* 'who' is optionally connected to the context of use/the discourse, i.e. it can be both referential and non referential and the use of CD is optional either way (see section 2.4).

The ANOVA tests for the second and eighth segments of the forth condition showed that there are statistically significant differences between the RTs of the two groups of speakers. More precisely, for the second segment, non native speakers are faster than native speakers. This fact may be explained by the fact that native speakers are maybe more disturbed than non native speakers by the position of the subject at the beginning of the sentence: as we pointed out in

section 2.2, the position of the subject may also be after the verb and maybe native speakers expected this position for the subject.

For the eighth segment of the forth condition, non native speakers are statistically significantly slower than native speakers, since they need more time to process the entire sentence which they previously read, making a wrap up.

Summing up, despite the successful acquisition of CD and DOM in Romanian and, more precisely, the successful acquisition of the semantic feature of animacy, the syntactic Person feature and the acquisition of the distinction between human proper names and common nouns, there are some indications that show that non native speakers do not exactly reach the level of native speakers. The first indication is that, in the first condition, with human proper names, non native speakers are sensitive to ungrammaticality, but this sensitivity is less strong than in the other conditions. The second indication is the fact that the grammaticality effect sometimes fades out for non native speakers, two segments past the critical segment, for the second and forth conditions, contrary to native speakers. One last indication has to do with the statistically significant differences between natives' and non natives' RTs, independently of the grammaticality of the sentences: these differences show that non native speakers experience greater difficulty than native speakers when wrapping up a sentence, while non natives are not influenced to the same extent as natives by ungrammaticality when they present faster RTs after the critical segment.

The total data for this experiment, for non native speakers, show that non native speakers

1) seem to have acquired the fact that CD and DOM in Romanian are strongly connected to the semantic feature of animacy (see section 2.2) and to the syntactic Person feature (see section 2.3), unlike MG, in which animacy does not play an important role in grammar and the Person feature does not exist, since MG does not possess DOM. Moreover, in Romanian, the DOMed direct object is analysed as a KP and it is connected with the separate functional projections ApplP and PersP. However, these findings have the limitation that the sensitivity non native speakers exhibit with human proper names as direct objects is less strong than the sensitivity they exhibit with the other types of direct objects tested in this experiment (inanimate definite DPs and interrogative pronoun *cine* 'who'). This finding may be explained by L1 transfer, because in MG CD is optional with human proper names. Furthermore, it seems that, with inanimate direct objects and the interrogative pronoun *cine* 'who', non native speakers are sensitive to ungrammaticality, but not in the same level as native speakers, since the grammaticality effect fades out during processing and it reemerges upon the final segment, where non native speakers wrap up the sentence they previously read;

2) seem to have acquired the syntactic feature regarding the different behaviour between human proper names and common nouns in Romanian, unlike MG, where there is not such a distinction. Non native speakers are sensitive to the ungrammaticality of the structures in which both CD and DOM are required, i.e. with human proper names as direct object;

3) seem to have acquired the properties of the interrogative pronoun *cine* 'who', which is always non referential and it cannot connect to the context given, while this type of structure is quantificational (see section 2.2). As a result, the use of CD with this interrogative pronoun is always ungrammatical, unlike MG, where it is optional.

Based on these findings, we may propose that the Full Transfer/Full Access Model (Schwarz & Sprouse 1996) seems to be supported by our data: our non native speakers, advanced learners of Romanian, seem to have acquired the relevant features of CD and DOM in Romanian as described and with the limitations discussed in the previous paragraphs. They seem to be able to reset the relevant parameters from MG to Romanian; this is possible due to constant and continuous access to UG in L2 acquisition, even after the end of the critical period.

Nevertheless, our data do not seem to support the Feature Reassembly Hypothesis (Lardiere 2008, 2009), since our non native speakers of advanced proficiency level in Romanian do not have problems reassembling the relevant features for CD and DOM from MG to Romanian (animacy does not play a role for CD in MG/Person feature is not instantiated --> animacy plays a great role for CD and DOM in Romanian/Person feature is instantiated via DOM, non distinction between animate proper names and common nous in MG --> distinction between animate proper names and common nous in Romanian, interrogative pronoun *pços* 'who' may be referential and non referential in MG and the clitic is optional either way --> interrogative pronoun *cine* 'who' is always non referential and the clitic is always ungrammatical in Romanian).

Finally, our data do not seem to support the Interface Hypothesis (Sorace 2006; 2011; Sorace & Filiaci 2006), since our non native speakers of advanced proficiency level in Romanian seem to successfully acquire the phenomena of CD and DOM in environments of obligatory or ungrammatical use of these mechanisms and their relevant syntactic, semantic and pragmatic features. Under the Interface Hypothesis, these phenomena are not expected to be successfully acquired, since CD and DOM lie on the interfaces between syntax and semantics and syntax and pragmatics.

References

Academia Română 2008: Academia Română, *Gramatica limbii române. Enunţul.* Bucureşti: Editura Academiei Române.

Anagnostopoulou 2012: E. Anagnostopoulou, *Variation in Clitic Doubling, Lecture presented at Leiden University (Minicourse on Meaning Domains, Phases and Agree).*

Anagnostopoulou 2006: E. Anagnostopoulou, Clitic Doubling. In M. Everaert, & H. van Riemsdijk (Eds.), *The Blackwell Companion to Syntax.* (pp. 519–580). Oxford: Blackwell Publishing.

Anagnostopoulou 1999: E. Anagnostopoulou, Conditions on Clitic Doubling in Greek. In H. van Riemsdijk (Ed.), *Clitics in the Languages of Europe. Language Typology.* (pp. 762–798). Berlin/New York: Mouton de Gruyter.

Angelopoulos 2019: N. Angelopoulos, Reconstructing Clitic Doubling. *Glossa: a journal of general linguistics , 4*(1), 1–28.

Avram, Ciovârnache, & Sevcenco 2016: L. Avram, C. Ciovârnache, A. Sevcenco, Semantic features and L1 transfer in the L2 learning of differential object marking: The view from Romanian and Persian. In P. Guijaroo-Fuentes, P. Larranaga, & M. Juan-Garau (Eds.), *Acquisition of Romance Languages. Old Acquisition Challenges and New Explanations from a Generative Perspective* (pp. 91–120). Boston/Berlin: Mouton de Gruyter.

Cornilescu & Dobrovie-Sorin 2008: A. Cornilescu, C. Dobrovie-Sorin, Clitic doubling, complex heads and interarboreal operations. In D. Kallulli, & L. Tasmowski (Eds.), *Clitic Doubling in the Balkan Languages* (pp. 289–320). Philadelphia: John Benjamins.

Dafinoiu 2008: C.-V. Dafinoiu, *Limba română pentru studenţii străini: teste şi exerciţii.* Bucureşti: Editura Universitară.

David 2015: O. David, Clitic doubling and differential object marking: A study in diachronic construction grammar. *Constructions and Frames , 7*(1), 193–135.

David 2014: O. David, Subjectification in the development of clitic doubling: A diachronic study of Romanian and Spanish. In *Annual Meeting of the Berkeley Linguistics Society* (pp. 42–61). Berkeley: University of California.

Dobrovie-Sorin 1990: C. Dobrovie-Sorin, Clitic Doubling, Wh-Movement and Quantification in Romanian. *Linguistic Inquiry , 21*(3), 351–397.

Donnellan 1966: K. Donnellan, Reference and Definite Descriptions. *The Philosophical Review , 75*(3), 281–304.

Eubank 1993/94: L. Eubank, On the Transfer of Parametric Values in L2 Development. *Language Acquisition , 3*(3), 183–208.

Farkas 1978: D. Farkas, Direct and indirect object reduplication in Romanian. In F. Donka, W. Jacobsen, & K. Todrys (Eds.), *Papers from the Fourteenth*

Regional Meeting of the Chicago Linguistic Society (pp. 88–97). Chicago: University of Chicago: Department of Linguistics.

Farkas & Von Heusinger 2003: D. Farkas, K. Von Heusinger, *Stability of reference and object marking in Romanian.* Vienna: Workshop on Direct Reference and Specificity at ESSLLI XV.

Grigoromichelaki 2013: E. Grigoromichelaki, A dynamic perspective on left-right asymmetries: CLLD and Clitic doubling in Greek. In G. Webelhuth, M. Sailer, & H. Walker (Eds.), *Rightward Movement in a Comparative Perspective* (pp. 321–367). Amsterdam: John Benjamins.

Guijarro Fuentes 2011: P. Guijarro Fuentes, Feature composition in differential object marking. *EUROSLA Yearbook 11 , 11*(1), 138–164.

Guijarro Fuentes & Marinis 2007: P. Guijarro Fuentes, T. Marinis, Acquiring phenomena at the syntax/semantics interface in L2 Spanish: The personal preposition a. *Eurosla Yearbook , 7*(1), 67–88.

Hawkins & Chan 1997: R. Hawkins, C. Y. Chan, The partial availability of Universal Grammar in second language acquisition: The 'failed functional features hypothesis. *Second language research , 13*(3), 187–226.

Hill 2013: V. Hill, The direct object marker in Romanian: a historical perspective. *Australian Journal of Linguistics , 33*(2), 140–151.

Hill & Tasmowski 2008: V. Hill, L. Tasmowski, Romanian Clitic Doubling: A view from pragmatics-semantics and diachrony. In D. Kallulli, & L. Tasmowski (Eds.), *Clitic Doubling in the Balkan Languages* (pp. 135–164). Amsterdam: John Benjamins.

Judy & Iverson 2020: T. Judy, M. Iverson, The distribution of Differential Object Marking in L1 and L2 River Plate Spanish. In A. Mardale, & S. Montrul (Eds.), *The acquisition of Differential Object Marking* (pp. 133–160). Amsterdam: John Benjamins.

Kallulli 2000: D. Kallulli, Direct object clitic doubling in Albanian and Greek. In F. Beukema, & M. Den Dikken (Eds.), *Clitic phenomena in European languages* (pp. 209–248). Amsterdam: John Benjamins.

Kallulli & Tasmowski 2008: D. Kallulli, L. Tasmowski (Eds.), *Clitic Doubling in the Balkan Languages.* Amsterdam: John Benjamins.

Karadzovska 1999: D. Karadzovska, Clitic Doubling in Macedonian. Difficulties for English L2 learners. *Working Papers in English and Applied Linguistics , 6*, 153–178.

Kazazis & Pentheroudakis 1976: K. Kazazis, J. Pentheroudakis, Reduplication of Indefinite Direct Objects in Albanian and Modern Greek. *Language , 52*(2), 398–403.

Lardiere 2009: D. Lardiere, Some thoughts on the contrastive analysis of features in second language acquisition. *Second Language Research , 25*(2), 173–227.

Lardiere 2008: D. Lardiere, Feature assembly in second language acquisition. In J. M. Liceras, H. Zobl, & H. Goodluck (Eds.), *The role of formal features in second language acquisition* (pp. 106–140). London: Routledge.

Leonetti 2008: M. Leonetti, Specificity in Clitic Doubling and in Differential Object Marking. *Probus , 20*(1), 33–66.

Malchukov 2008: A. Malchukov, Animacy and asymmetries in differential object marking. *Lingua , 118*, 203–221.

Mavrogiorgos 2010: M. Mavrogiorgos, *Clitics in Greek: a minimalist account of proclisis and enclisis.* Amsterdam: John Benjamins.

Montrul 2019: S. Montrul, The acquisition of differential object marking in Spanish by Romanian speakers. *Revista Española de Lingüística Aplicada/Spanish Journal of Applied Linguistics , 32*(1), 185–219.

Montrul & Gürel 2015: S. Montrul, A. Gürel, The acquisition of differential object marking in Spanish by Turkish speakers. In T. Judy, & S. Perpiñán (Eds.), *The Acquisition of Spanish in understudied language pairings* (pp. 281–308). Philadelphia: John Benjamins.

Papadopoulou, Varlokosta, Spyropoulos, Kaili, Prokou, Revithiadou 2010: D. Papadopoulou, S. Varlokosta, V. Spyropoulos, S. Prokou, A. Revithiadou, Case morphology and word worder in Second Language Turkish: Evidence from Greek learners. *Second Language Research , 27*(2), 173–205.

Parodi 2009: T. Parodi, Clitic doubling and clitic left dislocation in Spanish and Greek L2 grammars. In N. Snape, I. K. Leung, & M. Sharwood Smith (Eds.), *The debate on representational or selective deficits in SLA* (pp. 167–185). John Benjamins.

Schwartz & Sprouse 1996: R. Schwartz, B. Sprouse, L2 cognitive states and the Full Transfer/Full Access model. *Second Language Research , 12*(1), 40–72.

Sorace 2011: A. Sorace, Pinning down the concept of "interface" in bilingualism. *Linguistic Approaches to Bilingualism , 1*(1), 1–33.

Sorace 2006: A. Sorace, Gradedness and optionality in mature and developing grammars. In G. Panselow, C. Fery, R. Vogel, & M. Schilesewsky (Eds.), *Gradience in grammar: Generative perspectives* (pp. 106–123). Oxford University Press.

Sorace & Filiaci 2006: A. Sorace, F. Filiaci, Anaphora resolution in near-native speakers of Italian. *Second Language Research , 22*(3), 339–368.

Sportiche 1996: D. Sportiche, Clitic constructions. In R. Johan, & L. Zaring (Eds.), *Phrase Structure and the Lexicon* (pp. 213–276). Springer Science & Business Media.

Tigău 2020: A. Tigău, *Experimental insights into the syntax of Romanian ditransitives.* Berlin: De Gruyter Mouton.

Tigău 2014: A. M. Tigău, Specificity effects with clitic doubling and pe marking. *Bucharest Working Papers in Linguistics , 1*, 43–61.

Tomić 2006: O. M. Tomić, *Balkan Schprachbund Morpho-syntactic features.* Dordrecht: Springer.

Trueswell & Tanenhaus 1994: J. C. Trueswell, M. K. Tanenhaus, Semantic influences in Parsing: Use of Thematic Role Information in Syntactic Ambiguity Resolution. *Journal of Memory and Language , 33*, 285–318.

Tsakali & Anagnostopoulou 2008: V. Tsakali, E. Anagnostopoulou, Rethinking the Clitic Doubling parameter: The inverse correlation between Clitic Doubling and participial agreement. In D. Kallulli, & L. Tasmowski (Eds.), *Clitic Doubling in the Balkan Languages* (pp. 321–357). Philadelphia: John Benjamins.

Ungureanu 2014: M. L. Ungureanu, Resetting the functional features of the accusative clitic in the second language acquisition of Spanish. *Papers from the 35th Annual Meeting of the Atlantic Provinces Linguistics Association, Cape Breton University: Sydney, Nova Scotia. November 4-5*, (pp. 46–64). Sydney, Nova Scotia.

Von Heusinger & Chiriacescu 2011: K. Von Heusinger, S. Chiriacescu, Pe-marked definite NPs in Romanian and discourse prominence. *Proceedings of the V NEREUS International Workshop "Mismatches in Romance", Arbeitspapier 125* (pp. 33–54). Konstanz: Fachbereich Sprachwissenschaft, Universität Konstanz.

Von Heusinger & Onea Gaspar (2008). K. Von Heusinger, E. Onea Gaspar, Triggering and blocking effects in the diachronic development of DOM in Romanian. *Probus, 20*, 67–110.

Αργυρόπουλος 2022: Σ. Αργυρόπουλος, *Η κατάκτηση του αναδιπλασιασμού με κλιτικό και της διαφοροποιητικής σήμανσης αντικειμένου στην κατάκτηση της ρουμανικής ως πρώτης και δεύτερης/ξένης γλώσσας* [Phd Thesis]. Θεσσαλονίκη: Αριστοτέλειο Πανεπιστήμιο.

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Ο ΑΝΑΔΙΠΛΑΣΙΑΣΜΟΣ ΜΕ ΚΛΙΤΙΚΟ ΚΑΙ Η ΔΙΑΦΟΡΟΠΟΙΗΤΙΚΗ ΣΗΜΑΝΣΗ ΑΝΤΙΚΕΙΜΕΝΟΥ ΣΤΗ ΡΟΥΜΑΝΙΚΗ ΩΣ Γ1 ΚΑΙ Γ2

Περίληψη

Ο κύριος στόχος του παρόντος άρθρου είναι η μελέτη του Αναδιπλασιασμού με Κλιτικό (ΑΚ) και της Διαφοροποιητικής Σήμανσης Αντικειμένου (ΔΣΑ) με άμεσα αντικείμενα στη ρουμανική ως Γ1 και Γ2 από ελληνόφωνους ομιλητές. Στη ρουμανική οι μηχανισμοί είναι υποχρεωτικοί με τα έμψυχα κύρια ονόματα και τις οριστικές αντωνυμίες, ενώ είναι προαιρετικοί με τις περισσότερες αόριστες και αρνητικές αντωνυμίες με έμψυχο αντικείμενο αναφοράς και με τα αντωνυμικά επίθετα που προσδιορίζουν έμψυχη ΦΠΔ/ΟΦ, καθώς και με τις έμψυχες οριστικές και αόριστες ΦΠΔ. Είναι αντιγραμματικοί με τα περισσότερα άψυχα αντικείμενα αναφοράς των αόριστων αντωνυμιών και με άψυχες οριστικές και αόριστες ΦΠΔ. Στην ελληνική ο ΑΚ, με ελάχιστες εξαιρέσεις, είναι γενικά προαιρετικός και δεν συνοδεύεται από τη ΔΣΑ. Η έρευνα της κατάκτησης του ΑΚ και της ΔΣΑ στη δεύτερη γλώσσα σε γενικές γραμμές έχει δείξει ότι οι μη φυσικοί ομιλητές αντιμετωπίζουν προβλήματα κατά την κατάκτηση αυτών των φαινομένων. Θέλοντας να εξετάσουμε με πειραματική έρευνα την κατάκτηση των εν λόγω φαινομένων από ελληνόφωνους μη φυσικούς ομιλητές της ρουμανικής, χορηγήσαμε ένα πειραματικό χρονομετρικό έργο με υποχρεωτικά ή αντιγραμματικά περιβάλλοντα χρήσης των μηχανισμών, στο οποίο κυρίως παίζει ρόλο το είδος του άμεσου αντικειμένου και η εμψυχότητα: μια δοκιμασία αυτορρυθμιζόμενης ανάγνωσης προτάσεων. Μέσα από την πειραματική έρευνα ελέγξαμε εάν υποστηρίζονται κάποιες θεωρίες κατάκτησης μιας Γ2, οι οποίες, σύμφωνα με τα δεδομένα μας, επιλέξαμε να είναι η Υπόθεση της Πλήρους Μεταφοράς/Πλήρους Πρόσβασης των Schwartz και Sprouse (1996), η Υπόθεση της Αναδιάρθρωσης των Χαρακτηριστικών της Lardiere (2008, 2009), καθώς και η Υπόθεση του Διεπίπεδου των Sorace (2006, 2011) και Sorace και Filiaci (2006). Τα αποτελέσματα της έρευνας έδειξαν ότι, από τη μία μεριά, οι φυσικοί ομιλητές, σε όλες τις πειραματικές συνθήκες, αντιλαμβάνονται ορθά την αντιγραμματικότητα, ενώ, από την άλλη μεριά, οι μη φυσικοί ομιλητές προχωρημένου επιπέδου γλωσσομάθειας παρουσιάζουν σε γενικές γραμμές παρόμοια συμπεριφορά με τους φυσικούς ομιλητές, αλλά δεν φτάνουν ακριβώς στο επίπεδο τους. Αυτά τα αποτελέσματα μας δείχνουν ότι οι μη φυσικοί ομιλητές έχουν κατακτήσει τα χαρακτηριστικά που συνδέονται με τον ΑΚ και τη ΔΣΑ στη ρουμανική σε υποχρεωτικά και αντιγραμματικά περιβάλλοντα εμφάνισης (είδος άμεσου αντικειμένου, εμψυχότητα) και επομένως φαίνεται πως επιβεβαιώνεται η Υπόθεση της Πλήρους Μεταφοράς/Πλήρους Πρόσβασης, ενώ φαίνεται να μην επιβεβαιώνονται η Υπόθεση της Αναδιάρθρωσης των Χαρακτηριστικών και η Υπόθεση του Διεπίπεδου.

Λέξεις-κλειδιά: Αναδιπλασιασμός με Κλιτικό, Διαφοροποιητική Σήμανση Αντικειμένου, ελληνική, ρουμανική