"La pasta se come con salsa": Acquisition of middle constructions in Spanish¹

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This article looks at the acquisition of Spanish *middle constructions* by adult learners of Spanish L2, based on the crosslinguistic analysis of Lekakou (2003), Hulk & Cornips (2000), and Kemchimsky (2004). The testing involves a grammaticality judgment task and a truth value judgment task, in order to determine if English L1 learners are able to acquire the middle structure of Spanishmainly its clitic- and the middle semantics. Following Sorace (2004), against the full access hypothesis, it is predicted that participants won't be able to reset their L1 parameters regarding middle constructions, and recognize the syntactic and semantic environments that are exhibited in Spanish middle constructions.

The 'middle se'

Middle constructions are a notional category that employs the reflexive marker *se*, but whose syntactic and semantic characteristics differ from the reflexive, inchoative, impersonal, and passive structures that make use of the reflexive clitic as well. Different researchers have approached the examination of middle constructions, by taking into account cross-linguistic considerations. Lekakou (Lekakou 2003) looks at middles in English (1), Dutch (2), and Greek (3), considering them as unergative structures in the two first languages and passives in the latter.

This book reads easily
 it boek leest gemakkelijk

 'this book read-3S easily'

 Afto to vivlio diavazete efxarista

 'this the book read-PASS-3S with pleasure'

Her analysis defines the essential characteristics of middles as three semantic properties: i) The notional object is the subject. ii) The agent receives an arbitrary interpretation. iii) The otherwise eventive verb receives a modal reading and is a derived state. Lekakou holds that the cross-linguistic variations regarding the possible unergative and passive interpretations are due to morphosyntactic properties of the

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languages, such as imperferctivity. For this reason, Greek allows the explicitation of the modal operator, and therefore licences the encoding of the middle interpretation in the passives, while English needs to make use of a unergative construction where there is an implicit modal operator and a syntactically implicit agent.

Hulk, & Cornips (Hulk 2000) also address the middle formations and, similarly to Lekakou, they look at the cross-linguistic commonalities. Mainly, they center their attention in the fact that middles and passives share two essential properties: i) that the logical subject argument is syntactically absent but semantically present, and that ii) the grammatical subject is indeed the logical object. These researchers focus their study on English (4), French (5) and Standard Dutch (6).

- (4) This shirt washes well
- (5) Cette chemise *se* lave facilement
 - 'This shirt reflex washes easily'
- (6) Dit hemd wast goed 'This shirt washes well'

Hulk and Cornips stress the importance of the Affectedness Constraint condition in middles, according to which, if the object is not affected by the action, the middle formation will necessarily be taken as ungrammatical. Thus, they support the hypothesis that the reflexive *se* plays an aspectual role in middles (Labelle 1990:1992; Zribi-Hertz 1987), and relate the notion of affectedness to the aspectual impact of the clitic on the state of the verb. In other words, as an outcome of the middle voice, the active voice of the verb turns into a state.

Middles in Spanish

According to Kempchinsky (2004), the Spanish middle *se* has mainly an aspectual function of introducing or absorbing a temporal sub-event, without interpreting the clitic as a marker of telicity. Kempchinsky holds that middle *se* emerges as the head of the light vP, while in passive constructions it is found in the specifier position of vP. Thus, the following the properties of middle constructions in Spanish (Mendikoetxea 1999) can be enumerated as:

• Middles involve (primarily) non-stative predicates:

(7) a. Este libro se lee fácilmente ACC 'This book reads easily'
b. La línea de meta se cruza fácilmente (*middle; ACH) 'The finish line crosses easily'

 In middles the predicate expresses an inherent quality of the DP:

(8) a. Este libro se vende bien. 'This book sells easily'

b. Este libro se vende en todas las esquinas (*middle)

'This book is sold all over'

• The DP must be definite and preverbal

(9) a. Los pantalones de algodón no se planchan fácilmente.

'Cotton pants don't iron easily'

b. No se planchan fácilmente los pantalones de algodón

(*middle)

'Cotton pants are not easily ironed/*Cotton pants don't

iron easily'

• The DP is "specific" as in "representative of its class"

(10) a. Una camisa se abotona por delante

'A shirt buttons in front

b. Mi camisa verde se abotona por delante (*middle)

'Mi green shirt buttons in front'

• The external argument is suppressed (purpose clauses)

(11) Este libro se lee fácilmente (*para ayudar a los estudiantes) 'This book reads easily (*in order to help the students)'

• The sentence has an imperfective grammatical aspect

(12) El Quijote se lee/leía fácilmente

'The Quijote reads/read IMP (*PRET) easily'

(13) El Quijote se leyó fácilmente (*middle)

'The Quijote was read easily/*read (PRET) easily'

The learnability problem

It has been noted above that the middle construction in English shares some syntactic and semantic characteristics with the Spanish middles. Among other commonalities, it is seen that in both languages the logical subject is syntactically absent but semantically present, and that the grammatical subject is actually the logical object. However, English does not make use of clitics or any other morphological marker in order to mark middles as Spanish does. It would be possible to say that the middle clitic is null in English, and overt in Spanish. This may cause problems for the L1 English learners of Spanish.

According to the *full access hypothesis* (Duffield & White 1999; White 2003) the learner starts the acquisition process assuming that the full set of syntactic characteristics from his L1 is applicable to the L2. The *full access hypothesis* also predicts that there will be a

gradual process of parameter resetting through which the learner will, in principle, acquire the L2 syntactic and morphological characteristics and eventually will be able to fully converge on the L2 grammar, disregarding of the status of the construction in their L1. From this perspective, only advanced learners will exhibit a full acquisition of the middle clitic in Spanish, demonstrating a more accurate understanding of its morphological and semantic particularities, while the learners with lower proficiency levels will exhibit some optionality in their responses.

On the other hand, in recent research (Müller and Hulk, 2001; Paradis and Navarro, 2003; Sorace 2003, 2004, and Serratice, Sorace and Paoli, in press), it has been found that "interfaces between syntax and other cognitive systems (i.e. discourse pragmatics, lexical semantics) exhibit more developmental instability than narrow syntax" (Sorace, 2004:143). In other words, the recurrent optionality of L2 learners' grammars may be due to an actual indetermination at the interfaces level. Therefore, 1) the incosistent performance and 2) the judgments different than native speakers that L2 acquirers reveal in language tasks may be reflecting a representational deficit to synchronize different types of knowledge (Sorace, 2004).

Methodology

Given that the variability in the learners' performance seems to be the rule among L2 acquirers, this study assumed the working hypothesis that Spanish L2 learners will exhibit some difficulty in the recognition and acceptance of middle constructions, thus differing from native speakers' linguistic behavior.

The participants in this study were 15 adult learners of Spanish L2, who had been exposed to the L2 mainly in post-secondary academic settings, in an average of 5 hours a week, for at least two academic years. Of these participants, the classification tests placed 8 within the advanced group and the remaining 7 as high intermediate. The L1 of the subjects was mainly English, although one French, one Korean, and one Russian L1 subjects were also included. 15 adult Spanish native speakers composed the control group.

Both groups of participants were exposed to two sets of tasks in order to assess their acceptance and recognition levels regarding Spanish middle constructions with the clitic *se*.

I. <u>Grammaticality Judgment Task</u>

This task was based on single sentences that the learner had to rate in a scale of -2 to 2 according to acceptability. The sentences sampled the criteria that, according to Kempchinsky, characterize

middle constructions in Spanish. In this way, the test included, in a random order, the following groups of sentences:

• Sentences with middle constructions with the clitic se

These were grammatical sentences that showedd middle constructions with the use of the clitic (14). They will oppose to sentences like (15) in which the middle construction (interpretation) does not show the clitic.

- (14) Yo compro blusas de seda porque se lavan fácilmente 'I buy blouses of silk because CLIT wash easily'
- (15) *En la casa de mi abuela aprendí que el pan corta con la mano
 'In the house of my grandmother I learned that the bread cuts with the hand'
 - Sentences with stative verbs

These sentences tested the comprehension to statives (16). They were thought with the intention to contrast them ungrammatical statives with the use of the clitic (17) and ungrammatical statives without the use of the clitic (18).

- (16) María posee una finca 'Mary owns a farm'
- (17) *La casa se tiene fácil 'The house CLIT owns easily'
- (18). *El dinero quiere frecuentemante 'The money wants frequently'
 - Sentences which included specific DPs with the use of the clitic

This group of sentences intended to test the perception of the need for a specific DP in order to obtain grammatical middle constructions. For this reason, a group of sentences with unspecific quantifier (algún/a) (20) was included to be able to contrast the reactions of participants.

- (19) *Las reglas de cálculo se saben bien 'The rules of calculus CLIT know well'
- (20) *Algun condimento se digiere bien 'Some spice CLIT digests well'

II. <u>Truth Value Judgment Task</u>

This questionnaire was designed keeping in mind the semantic-syntax interface in which the middle *se* is found. For this reason, each item from the questionnaire consisted of a short paragraph whose semantics forced the middle interpretation or ruled it out. The

participant would have to choose, out of two options, a subsequent sentence that best followed the semantic implications of the specific context of the paragraph. Participants had to opt between two sentences which would be grammatical in *isolated* contexts, but whose grammaticality in this case, depended on the context of the paragraph.

Middles vs. Reflexives

i.

These paragraphs confronted the middle interpretation to the reflexive interpretation. Both types of constructions exhibit in their surface structure the clitic *se*, with the sole difference of the optionality of the overtness of the subject in the reflexives. In other words, in **middle** constructions the clitic is placed pre-verbally with an obligatory overt patient in subject position, while in **reflexive** constructions the clitic still maintains the preverbal position, but the subject is preferably covert².

(21) Luisa y Ana están preparando un almuerzo rápido. Luisa le pregunta a Ana: ¿Qué le agrego a la pasta?

'Luisa and Ana

- are making a fast dinner. Luisa asks Ana: What do I put in the spaghettis?
- La pasta se come con salsa. (Expected answer/ middle)
 - '(One) eats spaghettis with sauce'
- ii. Se come con salsa la pasta. (Unexpected answer/ reflexive) 'REFLEX eats spaghettis with sauce'
- (22) A Luisa le parece que Pedro come muy extraño porque 'Luisa thinks that Pedro eats in a strange way because'
- i. El arroz se come con mayonesa (Unexpected/ middle)
 - 'The rice has to be eaten with mayonaisse'
- ii. Se come el arroz con mayonesa (Expected unswer/ reflexive)
 REFLEX eats the rice with mayonaisse'

• Middles vs. [±perfective] ASP

According the analysis of Kempchinsky (2004), in Spanish middles the feature [-perfective] is essential for the middle interpretation, while the contrary turns out to be an impediment for it. Therefore middles involve primarily activities rather than achievements in order to convey the lack of an end point for the event. To test the comprehension of this aspect, the task included a series of paragraphs where the semantics of [±perfective] would sanction or reject the middle analysis and therefore determine the choice of [±perfective] sentence to follow appropriately the story (23, 24). There were two types of paragraphs:

a. Paragraphs with [+perfective] context and therefore *middle interpretation:

² In Spanish reflexive constructions the subject can be made overt with focus purposes

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(23)Luisa preparó un pastel de manzana, pero no lo pudo servir porque: 'Luisa made an apple pie but she could not put it on the table because': El pastel se quemó en el horno. (Expected answer [+perfective] ASP) 'The pie got burned in the oven' ii. El pastel se quema en el horno. (Unexpected answer middle[-perfective]) 'The pie gets burned in the oven' b. Paragraphs with [-perfective] context and therefore middle interpretation. (24)Ana se dió cuenta de que su saco estaba mojado y lo colgó a la sombra porque 'Ana realized her jacket was wet and she hanged it in the shadow because': i. La lana se seca a la sombra. (Expected answer [-perfective]) 'Wool has to be dried in the shadow' 'La lana se secó a la sombra' (Unexpected answer [+perfective]) ii.

'The wool got dried in the shadow'

These two sets of sentences present an interesting learnability problem given that no formal instruction will make explicit the syntactic or semantic differences between the constructions in question, and the availability of negative evidence is unlikely. In essence, the confrontation of these syntactic structures (Middles vs. Reflexives and Middles vs. Active/Passive Aspectuality) would constitute a clear example of poverty of stimulus problem, where the accessibility to UG principles would be the only tool that learners were left with in order to achieve proper L2 competence.

Results and discussion

Grammaticality Judgment task

These answers were tabulated following the [-2, 2] scale that the participants used to express their acceptability of the grammaticality of the sentence. (See example of sentences on 14-20).

In <u>Figure 1</u>, we measured the acceptance to phrases where middle constructions exhibited the clitic se, and to phrases with middle constructions that did *not* include the use of the clitic. It is possible to see how the three groups clearly preferred the phrases with the clitic, and how advanced students followed closely the behavior of native speakers. On the contrary, natives and advanced learners rejected the phrases without the clitic, though not as categorically. Intermediate students tended to accept the phrases with the clitic, and this tendency diminished in the case of phrases without the clitic, revealing intuitions similar to those of natives. There was a significant difference between the responses of the two groups: p value= 0,034; df = 5.

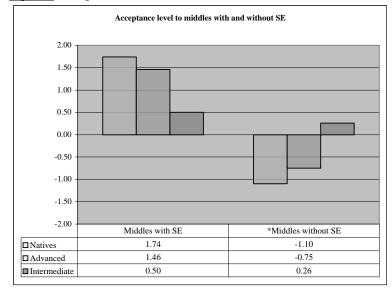
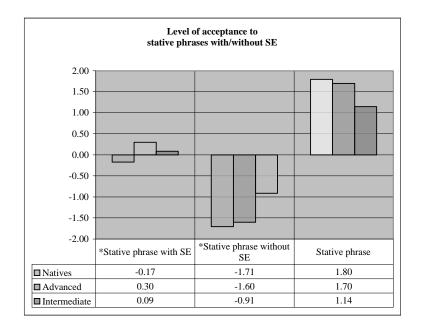


Figure 1: Acceptance to middles with and without SE

Regarding the phrases that considered statives, <u>Figure 2</u> compiles the average of acceptance per individual to grammatical phrases with statives, ungrammatical phrases that included the use of the clitic, and ungrammatical phrases with statives that did not include the clitic. The acceptance to grammatical phrases with statives is high by the three groups, which allows us to think that they do understand the meaning of this type of verbs. Also, the three groups of participants rejected categorically those stative *phrases without the clitic, while some uncertainty was registered by the three groups concerning the *phrases with statives that did include the clitic. This may be due to the fact that middles are perceived as [-perfective]ASP, as well as statives (for illustration of this perception see Figure 5)

Figure 2: Acceptance to statives with and without SE

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<u>Figure 3</u> reveals a much higher preference by all three groups of participants, for phrases with middle constructions that included a specific DP. On the other hand, natives were the only ones who were certain about the rejection of those phrases with middle contructions that used the quantifier "algún/a". Advanced and intermediate learners showed some insecurity regarding this type of constructions, judging them neutrally. The p value within groups' averages is 0.015; df = 5, which makes them statistically different.

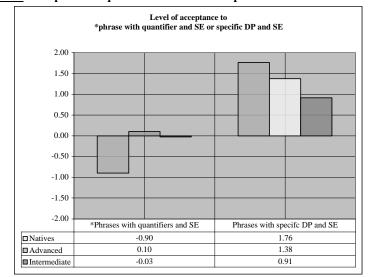


Figure 3: Acceptance to quantifiers with SE and specific DPs with SE

Truth Value Judgment task

In this section of the test, the participants faced paragraphs that portrayed a context where the reflexive or the middle interpretation would require a subsequent reflexive or middle phrase respectively. The participants had to be able to recognize this precise aspect of the semantics of the paragraph, since the subsequent phrases were always grammatical by themselves, but not necessarily as subsequent phrases to each particular paragraph. In other words, grammaticality is determined by the **semantics** of the paragraph (See 21-24 for examples). The tabulation was based on a "1" value for expected answers and "0" value for unexpected answers.

 $\underline{\text{Figure 4}}$ shows the reactions regarding the choice between a subsequent phrase with a reflexive construction or a middle construction, according to a reflexive or middle context in the paragraph.

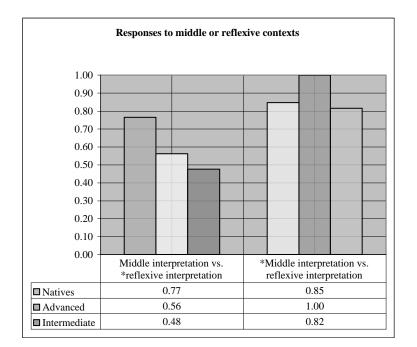


Figure 4: Responses to middle or reflexive contexts

According to these results, it can be said that it was easier for all participants to recognize the contexts that implied a reflexive interpretation than the paragraphs that implied a middle interpretation. It is interesting to note how natives do not react as categorically as expected, and even produce a lower number of expected responses than advanced students in the case of recognition of reflexives. Also, the fact that we find a p value = 0.05; df=5 (not statistically different) among the two sets of sentences may indicate that even if participants showed intuitions as natives did, in general they did not differentiate the two contexts clearly.

The second set of results includes paragraphs with $[\pm]$ perfective] ASP. In the case of [-perfective] contexts, it was expected that the participants preferred a subsequent middle phrase instead of a [+perfective] phrase. The contrary scenario ruled out the middle interpretation and called for a [+perfective] subsequent phrase. Figure 5 shows a higher number in the case of recognition of [+perfective] contexts for all three groups, which allows us to deduce these were easier to recognize than the middle contexts. However, no statistical difference was found between the responses given to the two sets of sentences (p value= 0.6; df=5). These results were congruent with those showed in Figure 4.

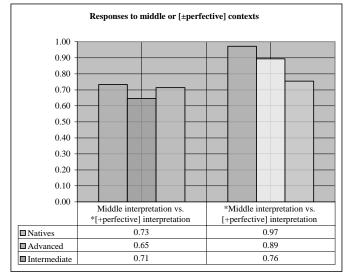


Figure 5: Responses to middle or [±perfective] contexts

The two sets of tests used in this study point towards two debating conclusions: On one hand, the results from the Grammaticality Judgment support the *full access hypothesis* (Duffield & White 1999; White 2003) given that the participants had a generally successful recognition of the syntactic characteristics of middle constructions. In most cases, the reactions of advanced students were close to those of native speakers, while the intermediate students usually showed more gradient assessments. This fact may be interpreted as the representation of a gradual process of the acquisition of middle constructions, where in the initial stages of the IL only some sensibility to the new morphology in middles is registered, with a higher degree of optionality

However, on the other hand, the responses to the Truth Value Judgment are consistent to (Müller and Hulk, 2001; Paradis and Navarro, 2003; Sorace 2003, 2004, and Serratice, Sorace and Paoli, in press), since they illustrated that middle semantics are harder to recognize in the case of reflexive or [+perfective] contexts. These results may be interpreted as due to a state of permanent indetermination of IL grammars, given that participants did reflect a representational deficit at the time to synchronize syntactic and semantic knowledge. The research hypothesis seems to have been confirmed from this point of view, as the learners' performance exhibited variablity regarding the two sets of answers, and a processing difficulty was registerd

In order to obtain more conclusive results regarding the acquisition of middle constructions, future experiments should consider

the possibility of increasing the number of participants, with a more diverse range of L1s, as well as the inclusion of a production task to complement the battery of tests employed in this occasion. These improvements would allow for more solid generalizations regarding the availability of UG in Second Language Acquisition, about the effects of the L1 in the initial stages, and about the degree of (in)determination of the syntax-semantic interface.

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