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Using deliberate metaphor in discourse: Native vs. non-native text production

Abstract: This study explores the occurrence of developmental patterns in the use of metaphors by native and non-native speakers of Spanish in discourse. Underlying this analysis is the assumption that intentionally using figurative language – and thus engaging a cross-domain mapping from a source to a target domain – is a communicative choice on the part of the speaker-writer. Taking into account the universality, and creativity of metaphor, this study aims to determine the effect of age, L2 proficiency level, discourse genre and modality of production in the production of deliberate metaphorical expressions by non-native vs. native Spanish speakers. For this purpose, we analyze the oral and written expository and narrative texts produced by 30 native and 47 non-native speakers (L1= Arabic, Chinese) of Spanish of three different age groups (grade-school, junior-high, and university students). The results of the study provide a developmental framework of the production of deliberate metaphor in discourse. Even though the results of the study do not show a significant proficiency development framework for the production of metaphor in discourse, we offer valuable insights into how creativity and transfer have an impact on the use of metaphors in non-native discourse.

Keywords: deliberate metaphors, L1 & L2 discourse, later language development

1 Introduction

This study explores the occurrence of developmental patterns in the use of metaphors by native and non-native speakers of Spanish in discourse. Despite being the Conceptual Metaphor Theory (Lakoff and Johnson 1980) our initial starting point, and in line with Steen's three-dimensional model of metaphor (Steen 2007, 2008a, 2008b), we strictly refer here to deliberate metaphors (henceforth DMs).

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Underlying this analysis is the assumption that intentionally using figurative language – and thus engaging a cross-domain mapping from a target to a source domain – is a communicative choice on the part of the speaker-writer. Accordingly, we see deliberate metaphors as rhetorical devices that language users may employ with the purpose of activating metaphorical reasoning in the receivers' minds (Nacey 2013; Steen et al. 2010). Hence, the study of the appropriate use of deliberate metaphor as part of later language development must necessarily be conducted in the context of text production.

We know from previous L1 literature that the development of the linguistic repertoire involves gaining control and ability to use language in different discursive contexts attending to the constraints of genre, register, stance, and modality of production (Berman 2001, 2015). The development of the skills involved in text production, both oral and written, extends from childhood to adulthood (Ravid and Tolchinsky 2002; Tolchinsky et al. 2005). The complexity of this process increases for non-native speakers since they have to deal not only with a different linguistic system but with different rhetorical conventions too. Becoming a literate speaker-writer of a given language requires adapting linguistic expressions to different communicative settings (Berman and Nir 2010; Steen 1999) and level of language along with a continuum from informal to formal contexts (Biber 1995; Grimshaw 2003), as much as is needed to adjust one's verbal expression to the needs of both interlocutor and text (Berman, Ragnarsdóttir, and Strömqvist 2002; Du Bois 2007), and being consistent with the distinctiveness imposed by speech and writing (Berman 2015). In very broad terms, text production then consists in combining different structures and linguistic forms to produce messages that meet specific communicative functions. Particularly, when it comes to figurative language, the ability to differentiate what is said from what is meant is affected by genre (Lee, Torrance, and Olson 2001; Tolchinsky 2004) and, in fact, metaphor density depends on register too (Berber-Sardinha 2015; Steen et al. 2010). Therefore, a (discourse) context-specific framework seems to be necessary for the study of figurative language use. This study is set out to analyze the use of deliberate metaphorical expressions in discourse across two modalities of production (writing and spoken) and two genres (narrative and expository).

Crucial for communication, vocabulary is essential for the study of L1 and L2 development, and its analysis provides a necessary perspective on language acquisition and processing since is the base of linguistic and conceptual knowledge (Clark 1993; Ravid 2004). Lexical development plays a crucial role in later language development because lexicon is subject to unlimited growth through the lifespan (Lenneberg 1967; Nippold 2002). There is a constant

reciprocal relationship between lexical development and literacy in which growth in word knowledge leads to better comprehension of texts, which in turn, sets the stage for further extension of the lexicon (Sternberg and Powell 1983). Likewise, a landmark in lexical development is mastery of figurative language (Tolchinsky 2004). Full native language acquisition implies development of figurative language (Levorato and Cacciari 2002; Peskin and Olson 2004). Findings suggest that metaphoric competence, as a cognitive skill, develops with age both in L1 (Tolchinsky 2004) and L2 (Billow 1975; Johnson 1989, 1991; Kogan 1983; Littlemore 2010). Nevertheless, figurative competence in L2 was observed to lag behind their L1 figurative competence and behind the figurative competence of native speakers (Danesi 1992; Howarth 1998; Kecskes 2000; Kecskes and Papp 2000; Kövecses and Szabo 1996). Metaphorical competence is, then, crucial for L2 lexical development since it is linked to the way in which language and/or culture organize the world (Danesi 1995), helping learners to develop their sociolinguistic, illocutionary, grammatical, discourse, and strategic competence (v. Littlemore and Low 2006). Knowledge and use of metaphorical expressions underlying the conceptual system of a language increase speech naturalness (Danesi 2004). In a study examining the contribution of different patterns of metaphorical language use to writing grades in the essays produced by non-native (L1= Vietnamese) undergraduate English speakers at four different year levels, Hoàng (2015) found that conventional and novel metaphors were positively associated with the scores assigned to narrative written texts.

Thus, the study of non-conventional meaning in discourse is especially interesting from a native and non-native language developmental point of view, and must be considered in order to achieve a thorough perspective of the linguistic competence of a given speaker. It is our aim to get insights into the development of metaphorical competence with age and/or L2 proficiency level.

Conceptual metaphors are largely or mostly universal, however metaphors vary along cross-cultural and within-cultural dimension, not only because the verbalization of the same conceptual metaphor may vary between different speech communities and across different languages, but also because certain metaphors appear to be unique to a given language or culture (Kövecses 2000, 2005, 2010; Yu 1995, 1998). Additionally, when it comes to L2 production, metaphorical creativity arises because L2 speakers, consciously or not, may create novel metaphors simply by reproducing standard images from their native language (Nacey 2013; Pitzl 2012; Seidlhofer 2009). Next idioms from Chinese with their equivalents in Arabic, Spanish, and English illustrate cultural variation and (not so) universal metaphors:

(1) 火上加油
huo shang jia you
'add oil to the fire'

يصب الزيت على النار
yasubb alzzayt ealaa alnnar
'pour oil into the fire'

Spa.: *echar leña al fuego*
'add firewood to the fire'
Eng.: add fuel to the fire

(2) 緣木求魚
yuan mu qiu yu
'climb trees to catch fish'

جلب لبن العصفور
jalab llaban aleasfur
'bring milk from a bird'

Spa.: *pedir peras al olmo*
'ask for pears to the elm tree'
Eng.: get blood from a stone

(3) 水火不容
shui huo bu rong
'incompatible as fire and water'

ناقر ونقير
naqir wanaqir
'percussionist and helium'

Spa.: *como el perro y el gato*
'like the cat and the dog'
Eng.: like cat and dog

(4) 羊入虎口
yang ru hu-kou
'the goat fell a prey to the tiger'

عرين الأسد
eryn al'asad
'lion's den'

Spa.: *meterse en la boca del lobo*
'get into the mouth of the wolf'
Eng.: go into the lion's den

In the case of L2 speakers, having access to (at least) two linguistic systems and the potential need of supplying language deficiencies may lead L2 users to produce non-native linguistic expressions by literally transferring metaphorical matter from the L1, resulting in incorrect collocations (Spa.: **hicimos la decisión la semana pasada*, from Eng.: 'we made the decision last week'; YEN, 25;5, male, L1=Chinese) or in acceptable and/or relatable idiomatic alternatives (Spa.: *no veía ni una gota de esperanza en la vida*; Eng.: 'he didn't see not even a drop of hope in life'; DIA; 24;7; female, L1=Chinese), in which it is typically hard to discriminate between errors and instances of creative innovation (Kachru 1985). In this sense, and considering that L2 creativity – at the very least – concerns awareness (Boden 2004), deliberateness might help discriminate between possible cases of metaphorical creativity and lexical errors. In order to get insights into this issue, our study analyzes whether or not non-conventional metaphorical linguistic expressions found in L2 discourse were result of 'mere' creativity or L2 transfer.

Whereas the distinction between conventional and creative metaphors refers to the linguistic dimension of metaphor, the deliberate and non-deliberate

opposition applies to its rhetorical function (Nacey 2013; Steen et al. 2010). Since the appearance of a three-dimensional model of metaphor in discourse approach involving metaphor in language, thought, and communication (Steen 2007, 2008a, 2008b), discussions into this issue have arisen (Gibbs 2011, 2015; Steen 2011, 2015). However, there has been little research into the communicative feature of metaphorical deliberateness (e.g., Beger 2011; Nacey 2013; Ng and Koller 2013; Perrez and Reuchamps 2014), probably due to the lack of a systematic deliberate metaphor identification procedure.[1]

Research within the field of metaphor studies is primarily concerned with the investigation of metaphor use in native natural-occurring discourse (Berber-Sardinha 2008; Cameron 2003, 2008; Charteris-Black 2004; Deignan 1999; Deignan and Potter 2004; Marhula and Rosinski 2014; Steen at al. 2010a). Numerous studies have focused on the potential benefits of teaching metaphors to L2 learners explicitly to L2 learners (e.g., Boers 2013; Danesi 2008; Holme 2004). Yet, research into L2 metaphoric competence has mostly focused on the identification and quantification of linguistic metaphorical expressions in non-native discourse (Danesi 1995; MacArthur 2010; Nacey 2013), and on the development of metaphor production skills across proficiency levels (Littlemore et al. 2014; Teymouri and Dowlatabadi, 2014).

Littlemore et al. (2014) looked at the amount and distribution of metaphor used by L2 writers across Common European Framework of Reference for Languages (CEFR) levels in the essays produced by Greek- and German-speaking learners of English. They found that the overall density of metaphor increases from A2 to C2 levels. Likewise, when investigating the relationship between 60 Iranian EFL learners' metaphoric competence and their language proficiency, Teymouri and Dowlatabadi (2014) found a correlation between these two variables. These findings are incongruent with those of Littlemore (2001) who did not find a statistically significant relationship between metaphor production and communicative language abilities. Similarly, regarding metaphor interpretation, Johnson (1996), and Johnson and Rosano (1996) found that L2 proficiency is unrelated to L2 metaphor interpretation abilities.

These results suggest that different ways of conceptualizing and measuring metaphoric competence may lead to contradictory results (Hoàng 2015). In our study, metaphor is considered as both a communicative device and a rhetorical choice; hence, we focused on the use of deliberate metaphorical expressions.

1 Recently, Reijnierse, Burgers, Krennmayr & Steen (2018) developed such a procedure, a method for identifying potentially deliberate metaphor in discourse that will hopefully allow carrying out more thorough studies and it will help to build a detailed picture of deliberate metaphor use in different discourse environments.

Considering the universality, and creativity of metaphor, this study aims to determine the effect of age, L2 proficiency level, discourse genre and modality of production in the production of deliberate metaphorical expressions in native and non-native Spanish. For this purpose, we analyze the oral and written expository and narrative texts produced by native and non-native speakers (L1= Arabic and Chinese) of Spanish of three different age groups (grade-school, junior-high, and university students). Expository and narrative texts were selected because they represent two ends of a continuum: while the former analyzes a topic, the latter focuses on people who act in certain temporal and spatially defined circumstances (v. Berman and Verhoeven 2002).

2 Method

In this section, we describe the participants of our study, the tasks and materials used, the procedure followed in obtaining the data, including the elicitation procedure, and the procedure for data treatment, including the process of transcription and coding. Regarding the selection of the sample, the elicitation procedure of texts and the transcription criteria, methodology used in this study is inherited from previous research projects (v. Berman and Verhoeven 2002).

2.1 Participants

We analyze 308 texts produced by 47 nonnative (L1= Arabic and Chinese)[2] and 30 native speakers of Spanish (n=77), divided into three age/schooling experience groups: primary school (mean age=10;16; range=9–11;9); junior-high (mean age=13;78; range=12;3–15;8), and university (mean age=25;24; range=19;7–40;3). Non-native speakers were in turn also divided by L2 proficiency level (A1–A2=9; B1-B2-C1=33; C2=4). Information about the composition of the groups and participants' age and L2 proficiency level is provided next in Table 11.1.

All participants were administrated a questionnaire to gather information about their sociolinguistic background, literacy practices, and general cultural habits. All L1 Spanish participants were recruited in Córdoba (Andalusia, Spain),

2 We did not make a distinction between L1s because the goal of the study does not concern cultural variation. However, despite considering both groups together, we did control this variable to be able to detect potential different behavior by L1. No differences were observed when comparing patterns of L2 metaphor use between both groups.

and L2 Spanish participants were recruited in Madrid, Barcelona, and Murcia and they must have resided in Spain for at least four years to ensure minimum abilities to produce texts.

Table 11.1: Distribution of the sample by age and L2 proficiency level.

L1 (control) Spanish & L2 Spanish				
L2 level	**9 yrs. (grade)**	**12–14 yrs. (junior-high)**	**Adults (university)**	**N**
A1–A2	4	4	1	9
B1–B2–C1	4	6	24	34
C2	0	0	4	4
Native	10	10	10	30
	18	20	39	77

2.2 Tasks and Procedure

In order to elicit the texts, participants were shown a five-minute video clip with no text, about conflict situations at school that acted as a target for unifying discourse content. After watching the video, participants were asked to tell and to write a personal experience narrative about a similar situation in which they had been involved (narrative genre), and to discuss, also orally and written, the kind of problems that were displayed in the video (expository genre). Participants produced the texts individually and tasks were counterbalanced for order of administration (Berman and Verhoeven 2002).[3]

All texts were orthographically transcribed, spelling mistakes were corrected, divided into clauses following Berman and Slobin's (1994) criteria, and coded following the conventions of CHAT format of CHILDES (MacWhinney 2000). Analyses were performed using CLAN programs (CHILDES).

The texts were analyzed following the Deliberate Metaphor Identification Procedure (DMIP) (Reijnierse et al. 2018) in search of potentially deliberate metaphors. This method takes a semiotic approach based on analyzing the

3 The data was gathered in the context of two research project: (1) "Developing Literacy in Different Contexts and Different Languages" (funded by the *Spencer Foundation,* Chicago; Ruth Berman, PI) for the L1 Spanish sample, and (2) "Lexical, morphosyntactic, and discursive markers in the development of text quality in L2 Spanish and Catalan" (funded by the Spanish Ministry of Economy and Finance; Joan Perera, PI) for the L2 Spanish sample. A full description of the data collection procedure can be found in Berman and Verhoeven (2002).

multidimensional meaning of metaphorical utterances in discourse. This kind of analysis doesn't make any claims about what happens in language users' mind, and, therefore, only cases of *potentially* deliberate metaphor can be identified (Nacey 2013; Steen et al. 2010). According to the DMIP, "a metaphor is potentially deliberate when the source domain plays a role in the representation of the referential meaning of the utterance" (Reijnierse et al. 2018: 134). Firstly, it is thus necessary to read the entire text to establish a general understanding of the content and identify metaphorical lexical units. As proposed by the DMIP, the texts were first analyzed following the Vrije Universiteit Metaphor Identification Procedure (MIPVU) (Steen et al. 2010) in search of metaphor related words (MRWs).

Following the MIPVU guidelines, the word is the unit of analysis, and multiword items are considered as a single lexical unit. However, specific demarcation of Spanish lexical units was needed in order to establish what counts as a lexical item. The criteria followed were though established by Argerich and Tolchinsky (2000): interposition, inflection and function.[4] Ambiguous cases were solved following Bosque (2006).

In broad terms, MIPVU consists in identifying (1) indirectly, (2) directly and (3) implicitly expressed linguistic metaphors, (4) signals of potential cross-domain mappings, (5) metaphor ambiguous cases, and (6) discarded for metaphor analysis cases. Starting by reading the entire text to establish a general understanding of the content, the analysis consists in identifying all the lexical units in the text, determining their meaning in context, and then deciding whether each one of them has a more basic contemporary meaning in other contexts. Basic meanings tend to be more concrete and precise, more related to bodily action and historically older. If a more basic meaning is identified, we decide whether its meaning in the text could be understood in comparison with this more basic meaning. If this was the case, then the lexical unit is marked as being indirectly used as metaphor. Likewise, similes, analogies and expressions of counterfactual reality were marked in order to also identify metaphor involving conceptual metaphor with directly used language. The MIPVU also recognizes metaphorical linguistic expressions expressed implicitly in the language. These implicit metaphors correspond to cohesive elements, such as third-person

4 (1) Interposition: multiword lexical items do not usually admit to an interposed determiner or quantifier, [*por cierto* (Eng. By the way)/**por muy cierto*.]

(2) Inflection: multiword items do not usually inflect for case, gender, number, etc. [*por ejemplo* (Eng. For example)/**por ejemplos]*.

(3) Function: it often changes when a word forms a lexical item with another word., *hasta vs. hasta que* "until"

pronouns, ellipses or demonstratives, which refer to a direct or indirect metaphor present in the discourse.

Likewise, DMIP involves identifying potentially deliberate metaphors in language use by following a top-down and bottom-up method. For this study, we only applied the bottom-up method in search for cues of deliberateness, domain constructions and clusters, considering all direct and explicit metaphors and the following linguistic constructions as potentially deliberate: all 'A is B comparisons' (see example 5), wordplays, similes (see example 6), extended comparisons and analogies (see example 7), s-quotes structures (see example 8) and creative metaphors (see example 9).

(5) *El aprendizaje es competición*
(the) learning is competition
'Learning is competition.'

[YEN, woman, ADU, Chinese, EW]

(6) *El docente debería ser más* ***como un dirigidor**** *de su crecimiento*
(the) teacher should be more **like a manager** of his growth
'The teacher should be more **like a manager** of (their students') growth.'

[MEN, woman, ADU, Chinese, NS]

(7) *La acción de* ***alejarse*** *no se ve tan obvia (...) no voy a demostrarle que a él no me gusta* ***acercar*** *(...) pero cuando habla conmigo voy a responderle (...) así poco a poco sería cada día más la* ***distancia*** *entre él y yo*

the action of **moving away** not see as obvious (...) (I)(am)not go to show(him) (I)don't like **getting close** (...) but when (he)speaks with me (I)(am)go to answer(him) (...) like (that), little by little (it)would be every day more the **distance** between he and me

'The action of **moving away** is not seen as obvious (...) I am not going to show him I don't like **getting close** (...) but when he speaks to me I am going to answer him (...) like that, every day **distance** between us would be more little by little.'

[WEH, woman, ADU, Chinese, NS]

(8) *Si copias, la nota no es* ***"real"***
if (you)copy, (the) grade not is **"real"**
'If you copy, your grade is not **"real"**'

[DIA, woman, ADU, Chinese, EW]

(9) *Necesitaba una* ***cartera de amigos*** *en el colegio*
(I)needed a **portfolio of friends** in the school
'I needed a friend protfolio at the school.'
[MAH, woman, ADU, Arabic, NS]

Guidelines of both procedures, MIPVU and DMIP were adapted to L2 production. Discrimination between novel and L1-based metaphors were performed by native speakers of Arabic and Chinese, and cases where the cross-domain mapping was impossible to follow were not marked as L1-based or creative metaphors but as errors, considering that communication was lost. Finally, we included three post-tags to the main categories (direct, indirect and implicit metaphors): (1) Spanish-based metaphors (see example 10), (2) L1-based metaphors (see example 11–12), and (3) creative metaphors (see example 13).

(10) *Los jóvenes que* ***hagan trampas*** *en los exámenes [YIA, woman, 25;7]*
(the) teenagers that **make tricks** in the exams
'Youngsters who **cheat** in the exams.'
[YIA, woman, ADU, Arabic, EW]

(11) *Hace falta aumentar la* ***fuerza de educar***
(it)makes need (to)increase the **strength of (to)educate**
'It is necessary to increase the **power of education**.'
[LEO, woman, ADU, Chinese, EW]

(12) *Esos niños no* ***van*** *bien conmigo*
those boys not **(they)go** well with me
'Those boys don't **get along** well with me.'
[OMA, boy, SEC, Arabic, NW]

(13) *Más bien pareces* ***un animal o una pared sin sentimientos***
rather (you)look **an animal or a wall without feelings**
'You look more like **an animal or a wall without feelings**.'
[ISM, boy, SEC, Arabic, NS]

3 Results and discussion

To gain a general perspective on the presence of metaphorical matter in our corpus, first, descriptive results of the total number and types of deliberate vs. non-deliberate metaphors identified in both L1 and L2 corpus are reported.

Next, results and distribution of deliberate metaphorical production data are analyzed for each group under study.

Due to the distribution and size of our sample, analyses were conducted with the total number of deliberate metaphors (DMs) and, depending on the type of data, a series of 2-tailed Mann-Whitney *U* or Kruskal-Wallis tests were conducted in all groups under study (native vs. non-native; age; L2 level; genre and modality of production). Because the participants produced texts of different length, all the analyses were performed on mean proportions over the total number of clauses in each text. Test are significant at the $p<.05$ level.

A total of 5,542 metaphors were found in the 308 analyzed texts, from which 243 were identified as deliberate metaphors. DMs represent therefore a 4.38% of the total metaphorical matter identified in the corpus, 0.48% of the 49,611 words examined and 2.40% of the 10,098 clauses. Information about total numbers of deliberate vs. non-deliberate metaphors by each category under analysis is provided in Table 11.2.

Table 11.2: Types and number of deliberate vs. non-deliberate metaphors.

Deliberate vs. Non-deliberate metaphors			
Metaphors	5542	**deliberate metaphors**	243
indirect metaphors	5043	**indirect metaphors**	149
Spanish-based	4832	Spanish-based	118
L1-based	46	L1-based	0
Creative	160	Creative	32
direct metaphors	86	**direct metaphors**	86
Spanish-based	32	Spanish-based	32
L1-based	3	L1-based	3
Creative	33	Creative	33
Others	256	Others	8

As shown in Table 11.2, indirect DMs represented 61.31% of total deliberate DMs identified, while direct DMs represented 35.39%. A total of 150 DMs were Spanish-based, while only 3 DMs were L1-based metaphors. Considering deliberate and non-deliberate metaphors together, L1-based metaphors rose up to 49. These figures illustrate that non-native speakers showed no symptoms of 'figurative homoiophobia' (Kellerman 2000), that is, they did transfer metaphorical matter from their native language to the target language. Metaphorical transfer seems to work unconsciously, just as other types of transfer, since only 6.12% of L1-based metaphors were deliberately produced. At the same time, however, these low figures also illustrate metalinguistic reflection on the part of the speakers, because they seem to perceive idiosyncrasies by avoiding transferring a large amount of metaphorical matter and restraining from producing deliberately L1-based indirect metaphors.

In terms of creativity, our results are consistent with those found by Steen (2011) and Nacey (2013): when considering deliberate and non-deliberate metaphors together, creative metaphors represent only 3.48% of the total metaphorical production, therefore most of the MRWs have their metaphorical meaning described in the dictionaries. In addition, it is important to keep in mind that these figures are particularly high in L2 production, suggesting that the lack of linguistic resources occasionally results in a more creative use of language.

We examined the use of DMs in **native and non-native production** expecting that native would produce more DMs than non-native speakers. Native speakers produced a mean of 0.017 DMs (SD=.043), while non-native speakers produced 0.015 (SD=.044). As shown in Figure 11.1, in our sample there is a higher proportion of Spanish-based indirect DMs in native than in non-native production (M=.0103; SD=.0277 vs. M=.0054; SD=.0278). Most of DMs produced by native speakers are Spanish-based indirect DMs (M=.0103; SD=.0277), whereas non-native speakers' most of DMs production is distributed between Spanish-based indirect DMs (M=.0054; SD=.0278) and novel direct DMs (M=.0052; SD=.0198). Lack of confidence on the metaphorical load when producing L2 metaphorical matter, together with less availability of linguistic resources on the part of non-native speakers seems to convey them to make a creative use of language by producing novel metaphors. Conversely, the use of Spanish-based direct DMs is balanced in native and non-native production (M=.0020; SD=.0072 vs. M=.0017; SD=.0079). Both native and non-native speakers displayed a similar amount of novel indirect DM (M=.0021; SD= .0094 vs. M=.0023; SD=.0109). As shown, standard deviations are higher than means in both corpora, indicating a high degree of individual variability.

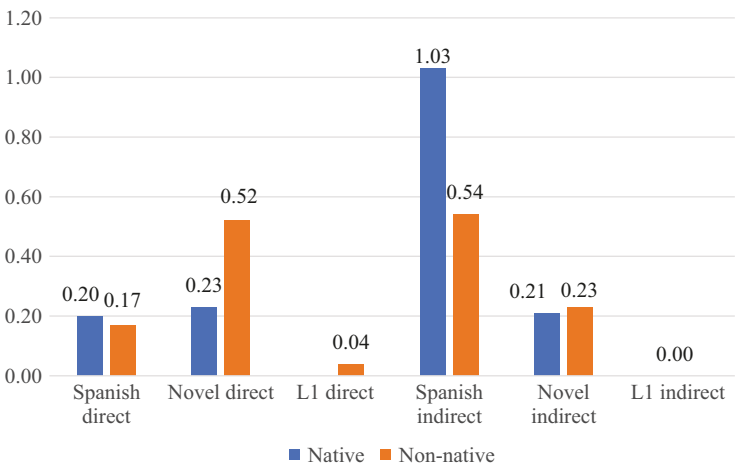

Figure 11.1: Mean percentage of types of DMs produced by native and non-native speakers

Even though no significant differences are found for any categories under analysis, when splitting non-native speakers by proficiency level, we do find differences between the beginner group, who do not produce any DMs, and native speakers (M=.0174, SD=.04398) for overall use of DMs (p=.001). It is apparent from the results that, as long as accessibility to the necessary linguistic resources permit it, the production of DMs is balanced between natives and non-natives. The use of DMs seems then to be equally essential in L1 and L2 discourse and metaphoric competence is assumed to imply not only linguistic skills but also cognitive operations. This premise is also supported by the use of DMs observed when examining the effect of age and L2 proficiency level.

Figure 11.2 displays the mean proportion of DMs produced in native and non-native discourse by age. When considering age together with L1, adult native speakers showed a more extensive use of deliberate metaphors than adult non-native speakers (p<.001). However, no significant differences were found between native and non-native speakers in the younger groups. This may be indicating that metaphors are certainly a rhetorical choice for expert native speakers who deliberately resort to them when needed; consequently, DM production seems to require mastery of 'more basic' linguistic resources. In our sample, native junior-high schoolers are overtaken by their non-native counterparts (M=.0026, SD=.0079 vs. M=.0133, SD=.0567), perhaps indicating a typically non-native use of DMs as communication strategy.

Our second goal was to determine the **effect of age** in the use of DMs. As expected, the same developmental pattern was observed in L1 and L2, and age

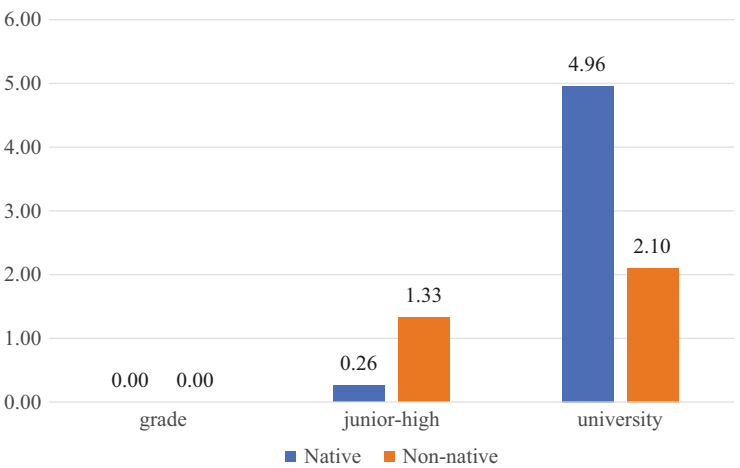

Figure 11.2: Mean percentage of DMs produced in native and non-native discourse by age

had a significant impact on the use of DMs in both samples (native: $p<.001$; non-native: $p=.001$). It was also apparent from the results that both L1 and L2 speakers made gains across different stages of development, since statistical differences were observed between all age groups considered (Native: grade vs. junior high: $p=.042$; grade vs. university: $p<.001$; junior-high vs. university: $p<.001$. Non-native: grade vs. junior high: $p=.040$; grade vs. university: $p=.001$; junior-high vs. university: $p=.038$). Absence of DMs in the youngest groups and the steadily increase across ages suggest that the use of DMs operates at a cognitive level.

Our third goal was to determine in what ways the use of DMs varies across three **different L2 proficiency levels**. We expected that DMs would be more frequent in advanced speakers than beginners. In order to confirm this prediction, three series of 2-tailed Mann-Withney *U* test was conducted for the overall use of DMs.

The production of DMs by L2 speakers was found to start off with none but increased gradually across the levels, with a statistically significant jump from the beginner to intermediate group (M=0.0188, SD=0.04819, $p=0.001$) and from beginner to advanced (M=.0257, SD=.04948, $p<.001$). However, statistically significant differences between intermediate and advanced were not found. Production of DMs seems then to stabilize once L2 speakers have at their disposal linguistic resources and although linguistic knowledge is obviously a prerequisite for the production of DMs, lack of linguistic knowledge does not hinder them from deliberately producing metaphors. Therefore, the use of DMs is not directly related to linguistic competence as might be expected.

Our last goal of this study was to determine how the use of DMs varies depending on **discourse genre and modality of production**. To do so, we ran two series of 2-tailed Mann-Withney *U* test for each category (genre and modality of production) for the overall use of DMs in L1 and L2 corpus together. From a discursive point of view, we assumed that expository texts would include more DMs than narrative texts. We also expected that written texts would contain a higher proportion of DMs than spoken ones. However, results indicated that the use of DMs was not affected by genre or modality of production, except when considering native and non-native speakers separately. In this case, expository texts produced by non-native speakers showed a higher proportion of DMs than narrative texts. The specific nature of these DMs might help to explain these two different behaviors.

4 Conclusions and suggestions for further research

This study is set out to determine the effect of age, genre discourse, modality of production, and L2 proficiency level in the production of deliberate metaphorical

expressions in native and non-native Spanish, taking into account the universality and creativity of metaphorical use as well as the language-specific constrains operating in the production of metaphorical expressions.

Our results revealed that the use of DMs is essential in L1 and L2 production, despite being a rhetorical choice that shows high individual variability. In broad terms, results also suggest that the use of DMs operates not only at a linguistic but also at a cognitive level.

A main finding of our study is that the production of DMs in natural-occurring discourse affects approximately 5% of the total words examined and this is certain in L1 and L2 discourse. The production of direct and indirect DMs is, broadly speaking, quite balanced: most of DMs are conventional, i.e., Spanish-based, followed by creative and L1-based metaphors. In terms of metaphorical creativity, this appears to be a useful way to identify DMs in discourse, since largely creative metaphors are deliberately produced. However, when it comes to L2 production, lack of linguistic mastery may occasionally result in a more creative use of language, which may or may not be deliberate. Besides, although non-native speakers might avoid transferring or producing deliberately L1-based indirect metaphors, they do enrich their productions by unconsciously transferring metaphorical matter from their L1. The receiver might perceive these as creative metaphors, however, to track their origin seems essential to determine whether they are an outcome of transfer or rather the result of a (deliberate) process of metaphor-making. Future research should aim at tracking equivalent metaphorical patterns in L1 and L2 to determine whether analogy between languages helps (or hinders) producing deliberate metaphors.

Our findings also indicate that the need to deliberately produce metaphors prevails over the lack of linguistic mastery, since production of DMs is parallel in native and non-native speakers. Absence of DMs in the texts by the beginner group might stem from their inability to combine the cognitive effort required for the production of DMs with their struggle to produce texts with a limited set of linguistic means.

On the other hand, production of DMs differs between native and non-native speakers only when considering different age groups. The fact that native university speakers produce more DMs than their non-native counterparts might be indicating a more elaborate and sophisticated language use that can only be reached at native-like proficiency levels. A more thorough, detailed analysis of the nature of adult DMs in native vs. non-native DMs might shed light on this issue.

Our findings indicate that age is an essential factor in the study of DMs, and that the same developmental pattern is found in the deliberate production of metaphors for L1 and L2 discourse. This suggests that the cognitive demands imposed

by production of DMs are not accessible before adolescence, and that metaphorical competence develops with age both in L1 and L2 discourse.

Additionally, deliberate production of metaphors is also subject to individual variability, and seems to involve personal rhetorical preferences not necessarily related to linguistic competence. It seems worth exploring whether these individual differences remain relatively stable across languages, and/or display similar tendencies in L1 and L2 (Littlemore 2010).

Once L2 speakers have the necessary linguistic tools to produce DMs, production remains across stages of linguistic development, though a developmental L2 proficiency pattern cannot be identified. An alternative way to get further insights into the use of DM in L2 discourse would imply a change of focus from the learner to the text, by examining the extent to which DMs contribute to explain variation when assessing text production. Future research should aim at analyzing whether the use of DMs in native and non-native discourse correlates with text quality evaluation (Cuberos in prep).

As for the effects of genre and modality of production in the use of DMs in our data, and against initial expectations, when considering L1 and L2 together DMs are equally present in expository and narrative texts, as well as in written and spoken texts. Nevertheless, DMs become more frequent in expository texts in the L2 corpus. A possible explanation for this revolves around the feasible use of direct DMs as a valuable communication strategy in absence of L2 vocabulary (Bialystok 1990). Future research should look further into the specific nature and context of the production of these DMs.

Certainly, the study of deliberate metaphors in non-native discourse would surely benefit from the analysis of a larger sample. Firstly, the distribution of our sample by L2 proficiency level constrains the scope for a generalization of our findings. Similarly, we believe that the relative infrequent use of DMs in (semi-)spontaneous discourse severely limits the generalization of the findings of our study too. Positively, valuable insights could be gained from the analysis of experimental data, by using a specially-designed task to elicit a more extensive use of metaphors (v. Lamartí 2011).

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