Interpreting as a natural skill: From family interactions to educational settings

Esther Álvarez de la Fuente[*] ; Raquel Fernández Fuertes

University of Valladolid Language Acquisition Lab, Spain

Key words	Abstract
	Natural translation or natural interpreting (NI) – performed by bilingual speakers without formal training – has received little attention in bilingualism studies, as it is often unfairly considered a byproduct of linguistic competence development (e.g., Harris, 1980a, 1980b, 2013; Álvarez de la Fuente & Fernández Fuertes, 2015, 2024; Hornáčková Klapicová, 2021; Álvarez de la Fuente et al., 2019). Similarly, the field of translation has largely dismissed it, regarding it as non-professional and rudimentary (see Álvarez de la Fuente & Fernández Fuertes, 2012a for a review). However, our paper presents a theoretical proposal that frames NI as a language-contact phenomenon playing an essential role not only in L1 bilingualism studies but also in those of L2 bilingualism. In fact, the way bilingual children acquire their two languages simultaneously in natural and family contexts has been recently drawn upon to offer a more accurate model for language production in fields such as language teaching (e.g., Marsh, 2000; Leonardi, 2010; Sneddon, 2012; García, 2013; Laviosa, 2019; González-Davies, 2020). The authenticity of family interactions presented in such bilingual acquisition contexts seems to provide better insights for the study of both language acquisition and teaching because they reflect how language naturally evolves. Therefore, our goal is to highlight that L1 NI studies can be extended to an L2 context. In this spirit, we offer an analysis of L2 NI cases following the framework of L1 NI to showcase the universality of NI and its pervasiveness in language interactions, whether in L1 or L2, within family or school settings.

1. Introduction

Bilingual speakers perform natural translation or natural interpreting (NI) as a bilingual practice without having received formal training in translation (Harris, 1977, 2017). When performed by simultaneous bilingual children, NI exhibits unique characteristics linked to linguistic and pragmatic factors and it is a recurrent phenomenon that occurs in early bilingual

[*] Corresponding author

oral production, regardless of the bilingual children's language pair (Álvarez de la Fuente and Fernández Fuertes, 2024).[1] This phenomenon occurs in tandem with the linguistic growth of two languages in bilingual family contexts, but it may occur also in other bilingual settings, such as second-language (L2) learning settings. In fact, in recent years, teaching practices such as translanguaging or linguistic mediation have highlighted how young language learners spontaneously engage in translation, thereby enhancing their linguistic skills (e.g. Olmedo, 2003; Coyoca & Lee, 2009; Lee et al., 2011; Portolés Falomir & Martín Laguna, 2012; Corcoll López, 2013; Portolés Falomir & Martí, 2017; Corcoll-López & Mitchell-Smith, 2020).

This parallelism between bilingual acquisition and L2 teaching suggests the possibility of transferring to an educational context the processes that naturally occur in a family bilingual acquisition setting. More specifically, analysing language-contact phenomena such as NI can provide valuable strategies for optimizing formal L2 instruction. Building on this idea, examining these real-life language-in-contact interactions can help teachers identify the types of situations children naturally engage in with their families and incorporate them into learning experiences. By doing so, teachers can gain valuable information to support students in developing their L2 proficiency or communicative skills in a way that closely mirrors native speakers.

Recent research (Álvarez de la Fuente & Fernández Fuertes, 2012-2024) highlights NI as a key example of such language-in-contact interactions within bilingual families, as exemplified in (1). NI is a common practice among L1 bilingual children, becoming a concomitant part of their linguistic and pragmatic development as they acquire two languages in a bilingual family setting. However, NI is not limited to the home environment: it can also emerge in other bilingual contexts, such as L2 learning classrooms, as example (2) illustrates. In fact, recent teaching practices increasingly emphasize the role of translation in fostering the linguistic development of L2 or multilingual learners (e.g., Cook, 2010; Calis & Dikilitas, 2012; Smentek, 2017; Pintado Gutiérrez, 2018).

(1) [context: Leo wants to play with the video camera that Melanie, his mother, is using to record him]
Melanie: ay don't step on the camera no.
Leo: lo quiero sí.
           [I want it yes]$_{SP}$

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[1] In this paper the two primary types of bilingualism are referred to as *simultaneous* or *L1 bilingualism* (two L1s) (Butler & Hakuta, 2004), where two first languages (L1) are acquired simultaneously from birth or early childhood; and *sequential* or *L2 bilingualism,* which occurs when a person learns a second language (L2) later in life, often in an institutional setting.

Melanie: can you say that in English?

Leo: I want hold it that.

[Leo 2;07_EN/SP_FerFuLice corpus][2]

(2) [context: Audio recordings at a school in the Valencian Community (Spain), where English is taught as a foreign language]

Teacher: ok do you remember how do you say LISTEN how do you say *bañera* in English?

Student: bath.

[8;0-9;0_EN/SP_Portolés Falomir & Martín Laguna (2012)]

This paper aims to take previous NI studies as a point of departure to develop our theoretical and interdisciplinary approach to this phenomenon through a comparison between natural bilingual acquisition and L2 acquisition. On this basis, we will show how the findings from recent studies on NI in child-parent communication parallel those from L2 teaching research, despite the differing scenarios: while NI occurs in natural family interactions, as in (1), L2 teaching research focuses on less natural settings, such as formal instruction environments, as in (2), where interactions take place between L2 learners and teachers. Considering this parallelism, we will examine L2 NI cases to emphasize the widespread nature of NI in settings like bilingual families or schools, where L1 and L2 are constantly in contact.

With this in mind, section 2 will show a brief review on the research on NI, highlighting the main characteristics associated with NI in family settings. Section 3 will explore the role of NI informal L2 learning contexts, demonstrating how NI is also a natural strategy used in L2 classrooms, and, finally, section 4 will conclude how in both disciplines, bilingual acquisition and L2 learning, NI is a common bilingual practice both in family and instructed contexts.

2. Main features of the role of NI in bilingual acquisition

Natural interpreting (or natural translation as a more general term) has been largely overlooked in bilingualism studies, often seen improperly as a token consequence of language development (e.g. Harris, 1980a, 1980b, 2013; Álvarez de la Fuente and Fernández Fuertes, 2015, 2024; Hornáčková Klapicová, 2021; Álvarez de la Fuente et al., 2019; Ciprianová & Hornáčková Klapicová, 2024). Likewise, the field of translation studies has dismissed it, considering it a non-professional activity with outcomes too basic to consider them worthy of examination (see Álvarez de la Fuente & Fernández Fuertes, 2012a for a review).

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[2] Each example contains the following information in square brackets: the child's name (if available), their age, the languages involved in the interaction and the CHILDES corpus or the reference where it is attested. The language abbreviations are the following: EN(glish), SP(anish), NOR(wegian), FR(ench), GER(man), CHI(nese), IT(alian), HUN(garian), SWE(dish), CAT(alan).

In the bilingual acquisition literature, other recurrent linguistic phenomena commonly found in bilingual children's production have received more attention from the research community. This is the case of code-switching, which refers to switching languages within or across sentence boundaries, as in the cases of (3) and (4) (e.g. Fernández Fuertes et al., 2025; Fairchild & Van Hell, 2017). In (3) Leo mixes the Spanish verb stem *lav-* with the *-ing* English inflection, resulting in a word-internal switch (*laving*), and in (4) Leo inserts a Spanish word, *yema* 'yolk', in an English sentence resulting in a switched determiner phrase.

(3) [context: Leo and his mother Melanie are in the bathroom]
    Leo: I *laving* my hair .
               [I (am) lav$_{SP}$ing$_{EN}$ my hair]
    Melanie: laugh in your hair?
    Leo: yeah.
    Melanie: no.
    Melanie: what do you call that in English?
    Melanie: I'm washing my hair.

                             [Leo 3;02_EN/SP_FerFuLice corpus]

(4) [context: Simon and Leo, twin brothers, are talking about how to make Easter eggs]
    Simon: well, he can put chocolate inside it and he can paint it colours.
    Leo: but how [///] but he has to take all the *yema* out of there.
    Melanie: all the [/] the yolk?
    Leo: yeah.

                             [Leo 6;03_EN/SP_FerFuLice corpus]

Although NI is seen as a type of code-switching because in both phenomena a switch of languages is present in the discourse, they differ in terms of the meaning transfer between languages, present in the former but not in the latter (Fernández Fuertes & Álvarez de la Fuente, 2017): the example in (5), for instance, shows how Leo switches to English rendering a similar message previously expressed in Spanish to address Simon (his twin brother).

(5) [context: Leo and Simon have fun throwing toys up in the air]
    Leo: mira cómo yo lo hago!
           [look how I do it!]$_{SP}$
    Simon:that's...
    Leo: look how I do it again.

                             [Leo 3;08_EN/SP_FerFuLice corpus]

As examples in (1) and (5) show, bilingual children's translation competence is not reduced to the use of lexical translation equivalents or pairings, but to their innate capacity to render a similar message in two languages when the situation or the interlocutor requires it, evolving parallel to their linguistic competence. This progressive interaction between both competences has been proved through research using various types of bilingual acquisition data (i.e., spontaneous and experimental). Harris (1980a/b), as a pioneer in the study of NI, based his work on annotations and diaries compiled by other leading scholars on bilingual acquisition at the time (e.g., Ronjat, 1913; Swain, 1972, among others). More recently, Álvarez de la Fuente and Fernández Fuertes (2012-2024) have also drawn on other referential works on bilingual acquisition (e.g., Lanza, 1997, among others), but have primarily used spontaneous and experimental longitudinal bilingual corpora available in CHILDES (MacWhinney, 2000).[3] This approach has allowed them to conduct their research on NI including a broader range of bilingual children, varying in age, language pairs, and sociolinguistic contexts. All the evidence from this research supports the conclusion that NI is a complex phenomenon shaped by an interplay of factors, involving not only developmental but also linguistic and pragmatic aspects. The following sections explore how these factors are reflected in the main dimensions underlying NI.

2.1 NI at very early ages and in different language pairs

NI has been recurrently attested in the oral production of very young simultaneous bilingual children with different language pairs (Harris, 1980a, 1980b; Álvarez de la Fuente & Fernández Fuertes, 2012b; Álvarez de la Fuente et al., 2019). This has been especially observed at around the age of two years old, when their parents ask them to do so, as seen in (6) and (8).

(6) Mother: Was hat Papa im Mund?
           [What does Dad have in his mouth?]$_{GER}$
  Child: Pfeife.
           [pipe]$_{GER}$
  Father: Qu'est-ce que c'est que ça?
           [what is it?]$_{FR}$
  Child: Pipe.
           [pipe]$_{FR}$
                [Louis 1;08_FR/GER_Harris (1980a) from Ronjat (1913)]

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[3] All the examples referenced in Álvarez de la Fuente and Fernández Fuertes (2012-2024), some of them included in the present paper, can be accessed at the *Bilingual acquisition data: Natural Interpreting NI dataset* (Álvarez de la Fuente and Fernández Fuertes, 2021).

(7) Father: mira M, qué es eso?

[look M, what is that?]$_{SP}$

Child: nappy.

Father: no (.) pero también se llama...

[no, but it is also called...]$_{SP}$

Child: pañal.

[nappy]$_{SP}$

[Manuela 1;09_EN/SP_Deuchar corpus]

(8) Father: Hvem var-var det da?

[who was it then?]$_{NOR}$

Siri: woman.

Father: woman. Hva sier Papa da?

[what does Papa say?]$_{NOR}$

Siri: damen.

[lady]$_{NOR}$

Father: en dame. Ja.

[a lady, yes]$_{NOR}$

[Siri 1;11_EN/NOR_Lanza (1997)]

The variety of NI in different language pairs is evidenced in the examples shown so far: English/Spanish (1,2,5 and 7), French/German (6) and English/Norwegian (8).

2.2 NI motivation

According to previous NI research (Harris & Sherwood, 1978; Álvarez de la Fuente et al., 2019) when bilingual children use translation to communicate with their interlocutors, this act could be elicited by a situation where they feel it is necessary to maintain the communication with a monolingual interlocutor, as in (9); or by some verbal stimulus received by their interlocutors, usually their parents, as in (1) and (6), (7) or (8).

(9) [context: Simon is eating peas from a plate and addresses Raquel, the Spanish Speaking researcher]

Simon: look how many I have left: one two three.

Simon (to Raquel): mira lo que me queda.

[look what I have left]$_{SP}$

[Simon 3;09_EN/SP_FerFuLice corpus]

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However, there could the case where children translate on their own initiative without an apparent reason, as in (10), where just a repetition of the message in English would have made the Spanish translation unnecessary.

(10) [context: Simon tries to crawl off Melanie's lap]
    Melanie: where are you going?
    Simon: down.
    Melanie: down?
    Simon: ahí.
            [there]$_{SP}$

                             [Simon 2;01_EN/SP_FerFuLice corpus]

Based on the analysis of longitudinal spontaneous data from bilingual corpora in CHILDES (i.e., FerFuLice, Pérez-Bazán, Ticio, Vila, Deuchar; GNP) and diary annotations (i.e., Ronjat, 1913; Leopold, 1935-1945; Lanza, 1988, 1997, 2001), Álvarez de la Fuente et al. (2019) conclude that the language strategies followed by parents in bilingual homes and the community linguistic context where the families live plays a key role in the NI motivation (see also Licari & Perotto, 2024). More specifically, they argue that the type of stimulus bilingual children receive to translate is directly related to the language strategies followed by parents when communicating with their children: in monolingual communities, strategies such as the one-parent-one-language approach (OPOL), bilingual-monolingual interaction, or minority-language at home, are followed by parents who want to reinforce their children's use of the minority language asking them to translate mostly *to* the minority language; while in bilingual communities, the use of strategies like the one-parent-one-language rule (i.e., each parent communicates with the child in their L1) leads not only parents but also children to rely more strongly on translating *to* or *from* the minority language in order to respect their interlocutors' linguistic demands (verbally explicit or not). This is the case of (11), where it is observed how Simon complies with his parents' language strategy at home, addressing his mother in English and then his father in Spanish rending exactly the same message in both languages.

(11) [context: Simon and Leo, twin brothers, are playing with their parents, Melanie (English speaker) and Ivo (Spanish speaker). Both follow the one-parent-one-language rule]
    Simon: mommy I wan(t) my lollipop I want to suck my lollipop.
    Melanie: after breakfast.
    Leo: my lollipop...
    [The boys go off camera with their father]

Simon (to Ivo): yo quiero mi chupa chups.

[I want my lollipop]_{SP}

[Simon 2;09_EN/SP_FerFuLice corpus]

Parents can also translate for their children to support the development of the minority language, as in (12), or as a form of "vocabulary teaching technique" (Döpke, 1992, pp. 148–153), as in (13).

(12) [context: Melanie and Simon are playing with animal toys]
Melanie: what's this?
Simon: rana.
[frog]_{SP}
Melanie: oh a froggy yeah.

[Simon 2;01_EN/SP_FerFuLice corpus]

(13) [context: Simon wants to tell Raquel, the Spanish-speaking researcher, that a tape is already in the video player]
Simon: what is a tape in Spanish?
Melanie: cinta.
[tape]_{SP}

[Simon 4;04_EN/SP_FerFuLice corpus]

Bilingual children may be elicited to translate when they are asked to act as interpreters for their relatives in daily situations because their parents do not know the community language. This is the case of *language brokers*, usually adolescents, who act as mediators for their family members in different settings like healthcare, financial institutions, or school offices, as observed in (14) (Shannon, 1990a, 1990b; Tse, 1996; Hall & Sham, 1998; Angelelli, 2011; Angelelli & Ceccoli, 2023, among others).

(14) [context: Anna, an Italian educator, assists Hu, a Chinese student, who is sick but does not know Italian. Liling is the child broker who helps them communicate with Hu]
Anna: noi adesso dobbiamo chiamare a casa per avvisare la sua mamma che lo debe mettere a letto perché non può neanche andare a scuola con la febbre così alta.
[now we have to call home to inform his mother who should put him into bed because he can't even go to school with such a high temperature]_{IT}
Liling: 你妈妈在家吗？
［is your mum at home?]_{CHI}
Hu: 我爸爸在家

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Simon (to Ivo): yo quiero mi chupa chups.

[I want my lollipop]$_{SP}$

[Simon 2;09_EN/SP_FerFuLice corpus]

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[now we have to call home to inform his mother who should put him into bed because he can't even go to school with such a high temperature]$_{IT}$
Liling: 你妈妈在家吗？
［is your mum at home?]$_{CHI}$
Hu: 我爸爸在家

[my dad is at home]_{CHI}

Liling: ha detto: che la sua mamma: non è a casa però: c'è il suo babbo.

[he said: that his mum: isn't at home but: his dad is at home]_{IT}

Anna: possiamo chiamare papà?

[can we call dad?]_{IT}

Liling: 说能不能叫你爸爸过来接你 因为你现在这种温度是不能在这的

[She's asking if she can call your dad to pick you up because with the temperature you can't stay here]_{CHI}

[Liling 8;0_CHI/IT_Angelelli & Ceccoli (2023)]

The social function of language brokers is not expected from younger bilingual children who perform NI as part of their bilingual acquisition process rather than act as linguistic mediators for their parents (who usually know the two languages used at home). This may be the reason why the experimental studies where bilingual children are prompted to act as interpreters between two monolingual adults with different languages has been scarce (Cossato, 2008; Álvarez de la Fuente & Fernández Fuertes, 2012b, 2015, 2024). In the case of Cossato's study, 14 children and adolescents from 4 to 15 years old and with different language pairs act as interpreters in a variety of languages as, for instance, Björn, a Hungarian-Swedish bilingual child, who translates what a Hungarian researcher says to a Swedish researcher, as illustrated in (15).

(15) [context: Björn is interpreting for the Hungarian and the Swedish researchers]

Researcher: hogy miket csinálnak ott?

[what do they do there?]_{HUN}

Björn: vad gör du i din skola?

[what do you do in your school?]_{SWE}

[Björn 6;5_HUN/SWE Cossato (2008)]

On the other hand, Álvarez de la Fuente and Fernández Fuertes's studies examine the evolution of a pair of English-Spanish bilingual twins, Simon and Leo, as translators over a three-year period. To this end, three different experimental NI sessions based on board-game play (part of the FerFuLice corpus in CHILDES) are carried out when the children are 4;6, 5;05, 6;03 years old, respectively. In each session, they mediate between one or two English monolinguals and a Spanish-speaking researcher, and only in the last session is their bilingual mother present. Their findings reveal that both children are productive and effective at interpreting as they grow older, adapting to their interlocutors' communicative needs, as (16) illustrates.

(16) [context: Susana, an English-speaking researcher, is marking the day of the week
on a poster. Esther is the Spanish-speaking researcher]
Susana: we are going to mark the time here and here.
Esther: qué hay que hacer?
[what do I have to do?]$_{SP}$
Simon: tenemos que marcarlo.
[we have to mark it]$_{SP}$

[Simon 4;10_EN/SP_FerFuLice corpus]

However, they tend to become less actively engaged in later sessions, either because they perceive the interpreting dynamics as slowing down the games or because their mediation feels less necessary in the presence of a bilingual speaker, as (17) shows.

(17) [context: Esther, a Spanish researcher, and Simon are reading a book about how
to make cookies]
Esther: y qué es eso de icing?
[and what is icing?]$_{SP}$
Leo: esto es icing.
[this is icing]$_{SP}$
Esther: no tengo ni idea.
[I have no idea]$_{SP}$
Simon: se lo preguntas a Melanie.
[ask Melanie]$_{SP}$

[Simon & Leo 6;03_EN/SP_FerFuLice corpus]

2.3. NI as an innate skill to boost linguistic development

As already mentioned, as bilingual children develop, they use their innate ability to switch between languages as a tool for communication even at very early ages. This natural predisposition to translate is important not just for language development but also for cognitive skills such as metalinguistic awareness or the ability to reflect on language when translating (Gómez Hurtado, 2005). In fact, at early stages, bilingual children may produce simple, word-for-word translations (as in (6) to (8)), but as they develop, they may begin to produce more nuanced translations that require the use of complex linguistic structures (as in (1) and (16)).

In fact, although in Álvarez de la Fuente and Fernández Fuertes's (2015) research it is concluded that most of the NI cases produced by bilingual children in spontaneous contexts are pairings or literal translations (about 80%), in experimental contexts more than half of the NI cases performed (58%) involve complex mechanisms of language mediation or translation universals such as the simplification or the explicitation of the information

contained in the original message (about 39% and 19%, respectively). The first mechanism implies the use of so-called *economic translation* (i.e., when the original message is reduced in the translation and so part of the information is missing), as in (18); and the second one is commonly referred to as *expansive translation* (i.e., when the information given in the original message is expanded in the translation), as in (19).

(18) [context: Leo and Susana are writing the names of the months on a poster]

Susana: you can ask Esther to write it in Spanish here because I can't.

Leo: lo haces en español?

         [will you do it in Spanish?]$_{SP}$

                                                  [Leo 4;11_EN/SP_FerFuLice corpus]

(19) [context: the researchers and the twins are playing with an EN/SP bilingual poster on the weather, seasons, days of the weeks, months, etc., marking the corresponding box]

Susana: is she gonna mark them all?

Esther: qué?

         [what?]$_{SP}$

Simon: que no tienes que marcar todas!

         [that you do not have to mark all!]$_{SP}$

                                                [Simon 4;11_EN/SP_FerFuLice corpus]

In (18), Leo reduces Susana's request to a minimum of information, while in (19) Simon translates what Susana said but adding in the target message the intention of her statement: it is not possible to mark them all at the same time.

From a developmental perspective, there is evidence of a link between the type of NI children produce and the different stages of their language competence (Álvarez de la Fuente & Fernández Fuertes, 2012b, 2024). At early stages, bilingual children demonstrate their genuine metalinguistic awareness of the differences between their two languages primarily through translation competence, which relies heavily on lexical pairings, as seen in (6), (7), and (8). However, as they grow older, they refine both their language awareness and translation skill, adjusting their translations to suit the linguistic context. For instance, when playing, as in (18), they may use economic translations to maintain the game's pace or expansive translations, as in (19), to prevent misunderstandings.

Therefore, some of the metalinguistic skills that bilingual children can develop through their translation skill are the following: they are aware that the same object can be named in two different languages so they are conscious about the separation of the two languages; they are sensitive to the needs of their interlocutors, so they are more conscious about the

difficulties of communication; and they are able to identify and remember significant words within sentences and even to evaluate if a translation is adequate or not, as in (20).

(20) [context: Simon, Leo and Esther are playing a board game but Esther does not understand English so Leo provides a not very accurate translation]

Simon: you never know who wins.
Esther: qué ha dicho?
[what has he said?]$_{SP}$
[Leo whispers to Esther]
Esther: que ellos van a ganar?
[(he said) that they will win?]$_{SP}$
Simon: no, hemos dicho que nunca sabes quién gana.
[no, we have said that you never know who will win]$_{SP}$
[Simon 5;05_EN/SP_FerFuLice corpus]

As a general conclusion, we can say that the practice of translation may have a positive effect on metalinguistic and cognitive skills in children acquiring two L1s. Establishing a parallelism between acquiring two L1s at home and learning an L2 at school (i.e., simultaneous vs sequential bilinguals), we could extend the use of translation in the area of language learning, inferring that the translation activity can be used to amplify the bilingual skills of L2 learners (Loy Lising, 2008). In fact, translation provides a feasible way to improve linguistic awareness and also to use translation as a tool for language proficiency assessment because it is an activity that requires a certain degree of competence. Malakoff and Hakuta (1991), for example, study the errors that 9-to-11-year-old children make in written translations like those in (21), number agreement mismatching in nouns (*boy* instead of *boys*) and verb tense errors (*lea* in present tense instead of *leyera* in the past), respectively, in order to prove the relationship between proficiency in their L2 and their translation ability, and the role their metalinguistic skills play in this activity.

(21) [SP to EN] los niños jugaban en la noche → the *boy* played in the dark *[Nouns]*
[EN to SP] the teacher told him to read → la maestra le dijo que *lea [Verb tense]*

As part of their linguistic and communicative resources, children learning an L2 at school can code-switch and translate or interpret between the two languages as part of their L2 learning process. In fact, it is possible to find these bilingual practices not only in more natural and family contexts like those we have explored, but also in formal or institutionalized contexts where translation – both oral and written – functions within L2 learning environments. In the next section, the role of NI in formal L2 learning contexts will be examined.

3. NI and its role in formal L2 learning contexts

Another context where two languages coexist is the language learning classroom. Some scholars (e.g., Marsh, 2000) distinguish between *acquisition* – when referring to young children acquiring two languages from birth or early childhood – and *learning,* which applies to older children or adults acquiring an L2 in a school setting or in the community to which they have emigrated. In this study, we use the term *L2 learners* to refer to the former. Additionally, although the instructional context in which L2 learners interact may seem less natural than a home environment, it still allows for spontaneous interactions – both between teacher and learners and, especially, among peers. These interactions clearly demonstrate a common ground between the behaviour of bilingual children as natural interpreters and that of young L2 learners in the classroom: the interaction between two L1s or between an L1 and an L2.

The evolving perceptions of the role of translation in language teaching methods reveal a shift from early views, where the L1 was considered an interference, to a more inclusive stance where translation serves multiple functions. Initially, the communicative approach in language teaching, particularly in the 1980s, promoted an *English-only* strategy, that is, a teaching approach where the learners' L1 is not regarded as a resource in learning another language. However, more recent pedagogical approaches emphasize the potential benefits of integrating the L1, especially for clarifying misunderstandings, reformulating information, or contrasting linguistic elements across languages (Cook, 2001, among others). From this new perspective, learning strategies have emerged that mirror the ways bilingual children utilize their linguistic repertoires, all advocating for the strategic inclusion of active L1-L2 interactions to enhance L2 learning.

3.1. Young L2 learners interpreting at school

If the ultimate goal in L2 teaching is to help students develop language skills similar to those of native speakers, then bilingual children's natural ability to translate between their languages is a crucial component of their language development which can be seen as part of their bilingual competence. From this view point the NI phenomenon offers valuable insights for language teaching as it shows that it is a skill that can be nurtured and leveraged in educational contexts. In fact, recently many researchers have promoted the recognition of the translation practice as a valuable tool, both for assessing bilingual competence and for improving L2 proficiency in the classroom (e.g., Marsh, 2010; Portolés Falomir & Martín Laguna, 2012; Calis & Dikilitas, 2012; Pekkanli, 2012; Corcoll-López, 2013; Stathopoulou, 2015; Smentek, 2017; Corcoll-López & Mitchell-Smith, 2020).

However, as in the case of bilingual acquisition data, the observation of how young (or older) learners use NI in L2 classrooms has not received much attention in the traditional teaching literature. For this reason, there are very few studies in which oral data collected

from institutional contexts are used to show the frequency and the situations when translation is performed by L2 learners and/or teachers. These data consist mainly on teacher/learner interviews or questionnaires and less often audio or video recordings (e.g., Olmedo, 2003; Orellana et al., 2003; Orellana & Reynolds, 2008; Coyoca & Lee, 2009; Lee et al., 2011; Portolés Falomir & Martín Laguna, 2012; Corcoll López, 2013; Portolés Falomir & Martí, 2017; Corcoll-López & Mitchell-Smith, 2020).[4] Although these data are quite limited, and many of them include small sample sizes from English or Spanish (as an L2 or additional language) classrooms in preschools or primary schools, they serve as a valuable resource for assessing the impact of translation in these settings. Most of them are meant to show how teaching practices such as translanguaging or linguistic mediation offer insight into translation as a natural communicative strategy among young learners, driven by motivations similar to those of simultaneous bilingual children (see section 2.2).

3.2. Young L2 learners' and teachers' motivation to interpret/translate

In examining the spontaneous use of translation within L2 classrooms, it is crucial to distinguish between two different roles that translation can serve: as a learning strategy and as a communicative strategy. When considered as a learning strategy, teachers can remain attuned to the linguistic needs of their students, supplying them with the necessary vocabulary or structural guidance in the L2. These translations, then, become a teaching tool to support, for instance, vocabulary acquisition, and so, translation aids comprehension and language development, as in (22) and (23).

(22) [context: audio recordings at a school in the Valencian Community (Spain), where English is taught as a foreign language]
Student: ¿cómo se dice colmillos?
[how do you say $colmillos_{SP}$]
Teacher: I think it's tusks.
[8;0-9;0_SP/EN_Portolés Falomir & Martín Laguna (2012)]

(23) [context: children learning English in an international school in Catalonia]
Teacher: and what does the frog eat?
C2: moscas.
[flies]$_{SP}$

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[4] Although these studies do not focus on NI as such, they offer excerpts taken from recorded natural classroom interactions between young learners and teachers in order to examine how peer mediation or language brokering, translanguaging, code-switching strategies, acts of translation and L1 uses are implemented in informed language teaching settings. As Martínez Ruiz and Zimáni (2021) explain, while all of these manifestations are used in the L2 teaching and learning process, not all involve translation.

Teacher: what does he eat?
C4:   moscas.
          [flies]$_{SP}$
Teacher: ah bugs.

[4;0_CAT/SP/EN_Corcoll López & Mitchell-Smith (2020)]

This natural reaction, seen by teachers as part of a learning experience, mirrors that observed when parents translate for their children (see examples in (4) in section 2, and (12) and (13) in section 2.2). In this regard, teachers may adopt a communicative method similar to that used by parents in bilingual families, and may intentionally parallel the one-person-one-language approach in the classroom (and even a similar nature of power roles). This is the case of (6) to (8) in family settings (see sections 2.1 and 2.2), but also that of (24) in instructed contexts, where the teacher encourages her students to use the L2 in the classroom (Spanish in this case) and so is implicitly requesting them to translate for an L2 SP learner.

(24) [context: first-grade students in an EN-SP dual immersion school in the US. Kevin is a native speaker of English and an L2 SP learner]

Teacher: Hey, todos están dibujando, ¿estás tú? Cuatro peces.
                  [hey, everybody is drawing, are you? four fish]$_{SP}$

[The teacher leans into Kevin, touches him on the back]

Kevin: What is peces?
                  [what is fish$_{SP}$?]
Teacher: ¿Quién puede decir a Kevin qué es un pez?
                  [who can tell Kevin what a fish is?]$_{SP}$
Multiple voices: fish.

[6;0-7;0_EN/SP_Lee et al. (2011)]

As part of the students' NI skill, cases of oral mediation functioning as a communicative strategy between students and teachers are also present in the classroom and even actively promoted by teachers (Corcoll López, 2013; González-Davies, 2020). Depending on their proficiency in the L2, learners can also act spontaneously as natural interpreters for their classmates so that they can understand the teacher, as (25), (26) and (27) show. In these examples, the context is a dual immersion English-Spanish classroom in the United States, where both L2 English students and L2 Spanish students attend classes taught in Spanish.

(25) [context: during a math activity, the teacher distributes calculators to all the children, but Eddie, an L2 SP student, does not seem to be doing the calculations]

Teacher: Y ¿cómo pasó que se rompió? ¿Qué le hiciste que se rompió?
          [And what happened? what did you do to make it break?]$_{SP}$

[Eddie doesn't respond. Samuel notices Eddie does not understand Spanish]

    Samuel: How did you break it?

<div align="right">[Samuel_SP/EN_5;0-6;0 Olmedo (2003)]</div>

(26) [context: in a dual immersion English-Spanish classroom, Norberto facilitates his peers' comprehension]

    Teacher: ¿Quién va a respetar las reglas hoy? Levanta la mano si vas a respetar las reglas hoy.

           [Who will respect the rules today? Raise your hand if you will respect the rules today]$_{SP}$

[The teacher is waiting for responses as not all the children have raised their hands]

    Norberto (to his classmates): raise your hand if you want to respect the rules.

<div align="right">[Norberto_EN/SP_5;00-6;00 Olmedo (2003)]</div>

(27) [context: Spanish classroom in an EN-SP dual immersion school in the US. Chad is an L2 SP child and the other students are L2 EN children]

    Teacher: [los ecuatorianos] comen caldo de algo.

           [(Ecuadorians) eat soup of something]$_{SP}$

    Teacher: ¿de qué animal?

           [what animal?]$_{SP}$

    Student: puerco!

           [pig!]$_{SP}$

    Student: ¡caballo!

           [horse!]$_{SP}$

    Student: ¡pato!

           [duck!]$_{SP}$

    Teacher: pata de vaca.

           [cow's leg]$_{SP}$

    Chad (to his classmates): What does that mean?

    Student (to Chad):   they eat cow's feet in the soup.

<div align="right">[7;0-8;0_EN/SP_Coyoca & Lee (2009)]</div>

As illustrated in examples (24) to (27), NI in some L2 learning contexts takes the form of linguistic mediation to help peers or the whole class in comprehension, much like when bilingual children act as natural interpreters or language brokers in family or social settings. It may be the case that child learners can act as mediators between the teacher and their classmates, as (28) shows.

(28) [context: Spanish classroom in an EN-SP dual immersion school in the US. Chad is an L2 SP child and Lily an L2 EN child]

Teacher: el grupo que gane los primeros puntos tiene que tratar de usar todos los dados para hacer diez.
[the group that wins the first points has to try to use all the dice to make ten]$_{SP}$

Chad: what does that mean?

Lily (to Chad): she said to use all of those for it to be ten (crouching in toward the circle and holding up ten fingers).

Teacher: pero no puede levantar el dado o voltearlo. Tiene que usar el dado que está allá.
[but you cannot pick up the dice, or turn it over. You have to use the dice that is there]$_{SP}$

Lily: you can't um, turn it around (twirling her fingers in a circular motion).

Teacher (to Lily): tiene que usar este número.
[He has to use this number]$_{SP}$

Lily: you have to use those numbers (pointing to the dice on the paper).

[Lily_7;0-8;0_EN/SP_Coyoca & Lee (2009)]

As observed in this and the previous examples in this section, translation is used as a natural and learning strategy (Cook, 2020) across different ages and stages of the L2 learning process and therefore, we can see "the language learner as a natural translator" (Carreres, 2006, p. 18).

3.3. Complex linguistic and cognitive mechanisms behind young L2 learners' interpreting

Although the innate nature of the NI skill may be seen as a mere way to expand L2 vocabulary through lexical or structural translation equivalents, it is a form of bilingual manifestation that requires both (meta)linguistic and (meta)cognitive capabilities (Laviosa, 2019).

In this way, for example, translating between languages can help students develop a better understanding of both languages and their structures. These activities have been shown to not only improve and understand difficult vocabulary but also to enhance language awareness transferring meaning more or less accurately between languages.

In fact, the increased use of translation as a pedagogical tool has sparked debate over its effectiveness. While some approaches, such as the English-only method, prioritize immersion and warn against translation as a pedagogical tool, other approaches like translanguaging, mediation, TOLC (Translation in Other Learning Contexts), or TITL (Translation in Teaching Languages) allow for a balanced bilingual teaching and a strategic use of translation in the L2 classroom. These approaches argue that translation in the classroom is not only beneficial or

effective but essential for developing both linguistic competence and critical cognitive skills and strategies in an L2. For example, translanguaging promotes students' use of both their L1 and L2 through code-switching and translation activities because they reinforce understanding in the languages involved in the classroom interactions (e.g., García, 2009; Lasagabaster & García, 2014; Corcoll López & González-Davies, 2016); mediation, as outlined in the Common European Framework of Reference for Languages-Companion Volume (Council of Europe, 2020), involves the process of translating or explaining content from one language to another, a practice that is seen as integral to effective L2 communication and linguistic competence development (Olmedo, 2003; Stathopoulou, 2015); TOLC (Translation in Other Learning Contexts) emphasizes the development of not just linguistic skills, but also intercultural and metacognitive abilities through the act of translation (e.g., Smentek, 2017; Laviosa, 2019; González-Davies, 2020; Martínez Ruiz & Zimáni, 2021); and TITL (Translation in Teaching Languages) proposes a revision of the concept of translation in language pedagogy (Pintado Gutiérrez, 2018).

Building on these ideas, as observed in bilingual children in spontaneous or experimental contexts (see section 2.3), similar patterns have been identified in the L2 learners' spontaneous production presented in some studies following the mentioned approaches. These patterns go beyond simply choosing the appropriate words or being faithful to the original message; they also involve making sense of the message in relation to the context and the needs of peers or teachers, determining whether to condense or expand parts of the original message. Therefore, L2 young learners include not only equivalent lexical or structural pairings, as seen in (24), (26) and (27) above, but also complex mechanisms related to translation universals, such as economic translations in (25), (28) and (29) below, and expansive translations in (30).

(29) [context: Eddie, an L2 SP student, speaks out of turn, so his teacher reprimands him]

Teacher: Eddie, cuando yo estoy hablando, ustedes escuchan.
         [Eddie, when I am speaking, you listen]$_{SP}$
Carlos [to Eddie and cupping his hand behind his ear]: listen.
                              [Carlos_5;0-6;0_SP/EN_Olmedo (2003)]

(30) [context: kindergarten students in an EN-SP dual immersion school in the US. Kevin is an L2 SP student]

Teacher (to Kevin): Si necesitas ayuda, si te pierdes…
                   [if you need help, if you get lost…]$_{SP}$
Ivan (to Kevin): When you, when you need help. When you need help, or when you're lost somewhere. Um.. She's gonna help you.
                              [Ivan_7;0_EN/SP_Lee et al. (2011)]

NI can also foster metalinguistic reflection on the languages involved in the classroom interactions, and how these are activated constantly across different age groups as demonstrated in (31) and (32).

(31) [context: Valencian preschoolers are in a Catalan-immersion school, where two other languages are taught as media of instruction (Spanish and English)]

Teacher: this is a skirt and these are trousers, what colour is the skirt?

Student: blau.

[blue]$_{CAT/Valencian}$

Teacher: blau?

Student: ahh no blue, blau es valenciano.

[Ah!, no, blue. Blau is Valencian]$_{SP}$

[4;0-5;0_CAT/SP/EN_Portolés Falomir & Martí (2017)]

(32) [context: Catalan-Spanish bilingual children learning English in a Barcelona school]

Teacher: was it different or similar in Catalan, in English and in Spanish? How was it in English, your dessert?

G: ice-cream, ¡ai!$_{CAT}$ no, lemon ice-cream.

Teacher: and in Catalan?

Ss: Gelat de llimona.

[lemon ice-cream]$_{CAT}$

Teacher: and in Spanish?

Ss: Helado de limón.

[lemon ice-cream]$_{SP}$

Teacher: and so is this different or alike?

Ss: well...

G: in Catalan and in Spanish they are quite similar.

[7;0-8;0_CAT/SP/EN_Corcoll López (2013)]

Additionally, it promotes the students' reflection on the role of translation and interpreting in language learning, as illustrated in (33).

(33) [context: Catalan-Spanish bilingual children learning English in a Barcelona school]

Teacher: and do you think we should do it more often in the English class, translating?

B: I don't know.

Teacher: or maybe we shouldn't, only, only in English, always in English and
without translating.

B: I think that translating is more fun and...

Teacher: more fun?

B: you learn.

[7;0-8;0_CAT/SP/EN_Corcoll López (2013)]

In conclusion, by the time young L2 learners enter formal education, they are exposed to peer interactions in multiple languages, which can foster the development of both communicative and cognitive skills. In many classroom settings, particularly those that use communicative language teaching methods such as translanguaging or mediation, NI is common as students engage in strategies that help them navigate their classroom interactions. Over time, the need for translation among L2 learners diminishes, reflecting the natural progression observed in simultaneous bilingual children. As L2 proficiency increases, reliance on NI may gradually decrease, and the situations where NI is necessary also may become less frequent. More spontaneous data from interactions in L2 classrooms would be needed to confirm this.

4. Conclusion

Translation in L2 learning contexts is in "a continuous developmental stage" (Leonardi, 2010, p. 30) in which linguistic mediation skills and intercultural competence can be acquired by L2 learners in the contemporary multilingual and multicultural world. In fact, all the NI cases presented in this paper, across both settings – family and classroom – and variables – e.g., children's motivation – reveal how metalinguistic awareness but also social awareness of others are intrinsic to bilingual speakers' linguistic interactions. Additionally, children and also adults (parents or teachers) may view translation as a motivating learning activity and a useful resource for successful communication, the ultimate aim at any level of language interaction, in general, of language teaching, in particular.

Similar to studies on child bilingual acquisition, there is a need for data from young L2 learners acting as natural interpreters in various instructed contexts (e.g., bilingual or dual immersion programmes). This could pave the way for considering NI as a communicative strategy in teaching and learning an L2 in an interactional environment, establishing its relevance within an interdisciplinary field where language acquisition and language learning can cooperate.

Observing NI in L2 classrooms could be valuable for viewing instructed translation or interpreting as potential teaching tools, as suggested by recent pedagogical approaches – even from early ages – depending on the cognitive effort and linguistic competence required. In this regard, viewing translation as a natural and communicative skill in diverse scenarios can

empower L2 learners to bridge the gap between their two languages, ultimately helping them become more competent, confident, and communicative bilinguals.

Acknowledgements

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