

**MARÍA AMPARO JIMÉNEZ IVARS &
MARÍA JESÚS BLASCO MAYOR (EDS.)**

**INTERPRETING
BRIAN HARRIS**
**RECENT DEVELOPMENTS
IN TRANSLATOLOGY**



PETERLANG

Bern · Berlin · Bruxelles · Frankfurt am Main · New York · Oxford · Wien

Bibliographic information published by die Deutsche Nationalbibliothek

Die Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data is available on the Internet at <http://dnb.d-nb.de>.

British Library Cataloguing-in-Publication Data: A catalogue record for this book is available from The British Library, Great Britain

Library of Congress Cataloging-in-Publication Data

Interpreting Brian Harris : recent developments in translatology /
María Amparo Jiménez Ivars & María Jesús Blasco Mayor (eds.).
p. cm.

Includes bibliographical references.

ISBN 978-3-03-430589-1

1. Translating and interpreting—Study and teaching. I. Jiménez Ivars, María Amparo, II. Blasco Mayor, María Jesús III. Harris, Brian,
P306.S.I625 2012
418'.02071—dc23
2012006263

The editors wish to thank the support and wise advice of outstanding figures in translatology such as Prof. Ángela Collados Aís and Prof. María Calzada Pérez to the present homage to Prof. Brian Harris.

This publication has been funded by the Spanish Ministry of Science and Innovation, Fundamental Research Projects, subprogramme of complementary actions for non-oriented fundamental research projects (BOE, December 1st 2008) code FFI2009-06661-E.

Cover design: Didier Studer, Peter Lang AG

ISBN 978-3-0343-0589-1

© Peter Lang AG, International Academic Publishers, Bern 2012
Hochfeldstrasse 32, CH-3012 Bern, Switzerland
info@peterlang.com, www.peterlang.com

All rights reserved.

All parts of this publication are protected by copyright.
Any utilisation outside the strict limits of the copyright law, without the permission of the publisher, is forbidden and liable to prosecution. This applies in particular to reproductions, translations, microfilming, and storage and processing in electronic retrieval systems.

Printed in Switzerland

In Search of the Initial Translator in Translation and Bilingualism Studies¹

1. Introduction: Broadening the Notion of Translation

Translation has been informally and broadly perceived as a communicative act that involves the transfer of meaning of a text from one language into another. According to this definition, translation is seen as a process by means of which an equivalence of meaning between two texts is established. This process has been dealt with in the literature on translation studies from at least two different perspectives: (1) in the more traditional approach, the equivalence process refers to the semantic, pragmatic and stylistic identity between the two texts, the original text and the target text (e.g. Delisle, 1984; Toury, 1984); this viewpoint, which we may refer to as an externally-oriented approach to translation, implies a prescriptive approach towards this process whose starting point is a series of *a priori* formal criteria that the translator must meet in order to interpret the original text correctly and deliver a good translation; (2) under a more communicative perspective, the equivalence process rendering any translation has a more dynamic nature in the sense that, in this rather internally-oriented approach (e.g. Nida, 1964; 1976; Seleskovitch, 1976; Rabadán Álvarez, 1991), the reproduction of a message is specially linked and ultimately constrained in a way by the intended interlocutors; that is, the semantic-pragmatic components would weigh more than the mere formal ones in this equivalence process. This last perspective involves then a shift from the text itself towards the speaker and, in particular, towards the speaker the translation is intended for.

¹ This review stems from the works done at the uvalal research group (University of Valladolid Language Acquisition Lab) with the funding obtained from the Spanish Ministry of Education and Science [HUM2007-62213/FILO].

These two approaches to the study of translation involve at least three important aspects that deserve further consideration and that point to an expansion of the term translation itself and the way it has been traditionally perceived; in particular, issues that refer to the how, the what and the who in this equivalence process such as the following: translation modes (oral versus written), translation themes (specialized or not) and translation doers (professional or not). In the first place, even though in most definitions of translation a textual basis is assumed (Neubert & Shrieve, 1992), whether it is the centre of the process or not, it should be taken into account that, as Tymoczko (2007: 55) states, “[a text] cannot be taken simply as a written document or else most translation events in the world past and present – namely instances of oral interpreting – would be eliminated”. This implies that translation concerns the transfer not only of written words (traditionally referred to as “translation”) but also of oral utterances (“interpretation”), and in this way the term translation is seen as the umbrella term for both equivalence modes.

In the second place, most translation theorists have focused on specific translation forms depending on the type of source texts to be translated (literary, legal, medical, scientific, business, etc.) and this could be considered as a reason why translation studies have identified the concept of “translator” with either a professional mediator, formally trained in the translation field in general (or in specialized fields), or a bilingual speaker aiming at becoming an expert in the translation activity (Toury, 1995). However, though this has been the main trend in translation studies, other types of non-professional and non-specialized situations involve the use of translations. In this respect, the types of translations done by bilinguals (both children and adults) in daily situations have been studied by a not inconsiderable group of translation researchers of whom Harris (1977, 1980a, 1980b, 1992, 2009) could be seen as the main exponent. These non-professional translations have often been termed natural translations (Harris, 1973-2009; Harris & Sherwood, 1978; Lozes-Lawani, 1994; Bullock & Harris, 1997; Sherwood, 2000), naïve translations (Malakoff, 1991; Harris, 1992) or brokering (Knapp-Potthoff & Knapp, 1986; 1987; Tse, 1996; Walichowski, 2001; Orellana et al., 2003a; 2003b; Hall, 2004; Orellana, 2009), depending on whether the studies in question adopt a more empirical, metalinguistic or sociolinguistic approach.

Finally, going a step beyond the internally-oriented approach to translation where the speaker occupies a prominent position in the equivalence process, we might consider not only the speaker for whom the translation is intended but crucially the speaker that actually builds up or performs this translation activity (Harris, 1980b; Toury, 1984; 1986; Malakoff & Hakuta, 1991; Lörscher, 1992). This approach involves a shift of perspective since what is at stake here is not the *a priori* criteria a translator has to comply with when translating (both those affecting the text or the interlocutor, as discussed above) but rather the internal mechanisms that are activated in the speaker’s bilingual mind to produce a translation.

These three aspects (and possibly some others) involve a necessary expansion not only of the term translation itself, with the consideration of different modes, different themes and different actors, but most importantly of the study of this phenomenon to incorporate not only the analysis of the final product (the translation) but also that of the internal process that leads the speaker to decode a message in one language and code it in a different language. All of the above leads us to point to some basic features of any translation process and among them the following should be included: a bilingual speaker, a message, an intention to communicate and a recipient. This being so, translation studies as a discipline could focus on different translation processes such as the following: that of professional translation (PT) done by professionally trained bilinguals, involving specialized texts (scientific, technical, literary, etc.) and aiming at providing an equivalent text according to some established theoretical criteria (semantic, functional, textual, etc.); that of translations done by professionals-to-be, that is, students who are being trained in the formal properties that constrain specialized PTs; and that of natural translation (NT) involving the translation “done by bilinguals in everyday circumstances and without a special training for it” (Harris, 1977: 6). These and other types of translation processes share some properties and, at the same time, exhibit some idiosyncratic properties whose study sheds light on the translation process itself.

In this respect, the present review chapter departs from this broader concept of translation, which involves a common framework for different translation processes, and aims at providing an account of the main studies conducted on a specific translation phe-

nomenon referred to as natural translation (NT) (Harris, 1977) and seen in the example in (1).

- (1) Melanie: Raquel watch out! There's a really fierce dragon behind you.
It's gonna chop your head off. [everyone giggles]
Raquel: *de qué os reís?*
[what are you laughing at?]^{Spanish}
Melanie: *nada, nada, de nada.*
[nothing, nothing, at nothing]^{Spanish}
Melanie: you guys gonna tell her?
Simon: *mamá te ha dicho que había un dragón*
eh detrás de tu espalda.
[Mum has told you that there was a
dragon behind your back]^{Spanish}
Raquel: *no me digas no.*
[really? no]^{Spanish}
Leo: *te iba a cortar tu cabeza!*
[it was going to cut your head off]^{Spanish}
- [5;03]²
(FerFuLice, Fernández Fuertes & Licerias, 2009)

The example in (1) is part of the FerFuLice corpus in CHILDES (MacWhinney, 2000) and, as studied by Álvarez de la Fuente (2007), it shows how a set of bilingual twins, Simon and Leo, act as linguistic mediators between an English speaker (Melanie) and a Spanish speaker (Raquel). Cases like this one, produced when the children were 5 years and 3 months old, involve no specific instruction in translation and thus no professional or specialized knowledge as in PT could be attributed. However, cases like this one point to the existence of translation processes other than PT.

Taking as a point of departure the example in (1) and concentrating on non-PT, the present paper is organized as follows: section 2 offers an account of different studies that have adopted a sociolinguistic approach to the study of non-PT which is referred to as language brokering; section 3 deals with the analyses conducted on how children translate and, in this way, it focuses on the emergence and development of translation competence; section 4 concentrates on different proposals put forward to account for how adults translate and, in particular, for the development of instructed translation; finally, section 5 points to some general conclusions on non-PT that are derived from the previous reviews.

² The age at which the example was produced by the children appears in square brackets. Following the convention, it should be interpreted as "year;month".

2. Language Brokering: NT in Social Settings

Tymoczko (2007: 79) states that

narrowing the conditions for translation (...) is effectively impossible: almost any condition used to exclude types of interlingual and textual transmutation as not being translations will also exclude certain forms of translation that are attested in the historical record.

A case in point of these forms of translation would be the translations done by the usually referred to as non-professional interpreters or language brokers (Tse, 1996; Hall, 2004; Hall, 2003-2005; Harris, 2009). These interpreters are bilingual speakers, adults (Knapp-Potthoff & Knapp, 1986; 1987; Müller, 1989; Wandensjö, 1998; Valero-Garcés & Sales-Salvador, 2007; Harris, 2009), adolescents or children (Shannon, 1990a; 1990b; Bullock & Harris, 1997; Walichowski, 2001; Orellana et al., 2003a; 2003b; Valdés, 2003; Bayley et al., 2005; Dorner et al., 2007; 2008; Orellana, 2009; Angelelli, 2010), who come from immigrant communities and act as interpreters for their families in diverse social and specialized contexts (educational, legal, cultural, medical, commercial, etc.). From the sociolinguistic perspective these studies adopt, these translators are considered as mediators that allow two interlocutors to communicate culturally and linguistically, being this twofold "conversion of meanings" (Harris, 2009) an essential component of language brokering and, specifically, of NT, as can be seen in the examples in (2).

- (2a) Doctor: How do you feel about returning to
work on the first of September?
Leti: First of September? That's when we're going to school?
Doctor: No. I want your mom to respond. How does
she feel about returning to work?
Leti: *Oh... que cómo se sentiría si va a trabajar el primero*
de septiembre. [addressing her mother?]
[how would you feel about going to work
the first of September?]^{Spanish}
Mother: *Dile que yo no me siento bien*
pero si él quiere mandarme que...
[tell him that I feel well but if he wants to send me then...]^{Spanish}
Leti: She doesn't feel well, but if you want
to send her it's ok with her.
Doctor: Well, we don't want to send her if she's
not going to be able to work.

Mother: *Qué dice, Leti?*
 [what is he saying, Leti?]_{Spanish}
 Leti: *Que no la quiere mandar si no puede trabajar.*
 [he doesn't want to send you if you can't work]_{Spanish} [11:00]
 (Shannon, 1990a)

(2b) Teacher: *¿Quién va a respetar las reglas hoy? Levanta la mano si vas a respetar las reglas hoy.*
 [who is going to respect the rules today? raise your hand if you are going to respect the rules today]_{Spanish}
 Norberto: Raise your hand if you want to respect the rules. [5:00-6:00]
 (Olmedo, 2003)

(2c) Ms. Salinger: And another thing is, María is just, you know she's just really a wonderful classmate, um, student in class. She's very very helpful with the other students. She's always enthusiastic. She asks a lot of questions, um, you know, she's just very delightful to have in class. It's been very enjoyable to, have her as part of our, our group. You want to try this one, María?
 María: *Dice que voy bien en todo! Y que participo y decir preguntas a los niños y ayudarles. Y, that's all.*
 [she says that I'm doing well in everything! And that I participate and to say questions to the children and to help them. And, ...]_{Spanish} [8:00-12:00]
 (Orellana, 2009)

The examples in (2) reflect how different English/Spanish bilingual children act as mediators in a variety of situations. In (2a), as it appears in Shannon (1990a), an 11-year-old child, Leti, goes to the doctor with her mother and mediates between her mother (Spanish speaker) and the doctor (English speaker). In the study by Olmedo (2003), Norberto, in (2b), translates into Spanish what the teacher says in English for one of his classmates. And María, in (2c), as discussed by Orellana (2009), is urged to translate by her teacher so that her parents can understand what the teacher has just said about her progress at school.

Some of the studies on brokering have recorded translation longitudinal data (Orellana, 2009)³ and others have shown translation practices reported in interviews and journals where adults or chil-

dren recount their experiences as translators (Shannon, 1990a; 1990b; Valdés, 2003; Orellana et al., 2003a; 2003b). The main focus is placed, in both cases, on the social interactions involved in the translation performance, like those in (2), and on the learning effects of this activity in adolescents and children. In particular, greater emphasis is put on the social and cognitive implications and motivations of this type of translation activity and interlinguistic and intercultural mediation. However, these studies are not concerned with how these children actually translate and the properties that define the translation process as such and that lie behind these language-brokering encounters.

3. Translation Competence Emergence: the Role of NT in the Linguistic Development of Bilingual Children

The studies on language brokering referred to in the previous section point to a relationship between being bilingual and being able to mediate between two cultures/languages. In fact, this is what triggers the whole brokering situation: the young generation of immigrants that acquire English and that can then translate for their parents who cannot speak English (in the case of the English/Spanish examples in 2 above). The relationship between bilingual competence and translation competence has been the focus of attention of different studies (Harris & Sherwood, 1978; Harris, 1980b; Toury, 1986; Srivastava & Gupta, 1989; Malakoff & Hakuta, 1991; Lörcher, 1992). Some of them even argue that not only does it exist a correlation between bilingualism and the capacity of translating but also a reciprocity between both linguistic phenomena: all translators must be bilingual and all bilinguals can translate (Harris & Sherwood, 1978; Harris, 1980b). What these studies suggest is that the translation ability is part of bilingualism in such a way that a speaker develops his bilingual competence through language exposure and language use and this bilingual competence includes, among other properties, the use and development of his translation competence through the interaction between his two languages and between them and his sociolinguistic context. When adopting this perspective, we turn from a

³ The attempt was not without difficulties, as Orellana (2009: 139-40) acknowledges herself: "we were reluctant to be too invasive with our observations and records (...) and securing completely 'natural' data was difficult if not impossible".

rather socially-oriented approach, like that followed in the studies on language brokering, to a more internally-oriented one where the bilingual speaker (child or adult) and, in particular, the speaker's bilingual competence is the main research interest.

In this respect, Harris (1980a; 1980b) analyses the production of children that have acquired their two languages either from birth or from early childhood (that is, L1 bilinguals)⁴ as reported in the first studies about child bilingualism (Ronjat, 1913; Leopold, 1939-1945; Rafter-Engel, 1970; Swain, 1972; among others). The analysis of these data leads Harris (1973; 1977; 1980a; 1980b) to conclude that these children can translate naturally, even at very early ages as emergent bilinguals.

Different studies both from the field of translation studies (Toury, 1986; Lörscher, 1992; Darwish, 2000; among others) and from the field of bilingual acquisition (Harris, 1980a; 1980b; Malakoff & Hakuta, 1991; Malakoff, 1991; 1992) have set to test whether, and if so how, translation competence develops and how it interacts with the process of bilingual acquisition. We include below a reference to, on the one hand, studies that deal with the role of translation equivalents in the organization of both languages in the mind of the bilingual child and, on the other hand, studies centred on how translation competence and bilingual competence interact along the bilingual acquisition developmental process.

3.1 The role of NT in early bilingual acquisition: translation equivalents

Research on bilingual first language acquisition was concerned in the 1980s and 1990s with whether simultaneous bilingual children distinguish between their two language systems from very early on or rather whether an initial stage in which both languages conflated into one was present before actual language separation took place⁵.

4 The term "bilingual" comprises different types of linguistic profiles depending on the age of exposure to the two languages, the linguistic skills at stake, etc. (see Meisel, 2001; and Butler & Hakuta, 2004 for an overview). We use the term L1 or simultaneous bilingual to refer to those speakers who have acquired the two languages simultaneously from birth in a natural context and who are, therefore, different from L2 or sequential bilinguals, who have acquired their L1 from birth and then their L2 at a later age, usually in an institutional context.

5 Different labels, other than the ones used here, can be found in the literature to refer to these hypotheses: the one-system hypothesis versus the two-system

Along this debate⁶, different studies established a direct link between the development of bilingual competence and that of translation competence, which is our main concern here, and, in particular, with regards to how the bilingual lexicon was organized in the mind of the bilingual child.

According to the unitary language system hypothesis (e.g. Ronjat, 1913; Leopold, 1939-1949; Volterra & Taeschner, 1978; Redlinger & Park, 1980; Taeschner, 1983; Vihman, 1985; Saunders, 1988; Toribio & Brown, 1995), the fact that bilingual children are able to translate from one language into another evidences they possess bilingual awareness and, thus, two different lexicons. Since translations do not appear in the data in an early developmental stage (before the age of 2;00), these authors conclude that in this initial stage children do not distinguish between the two languages. In later stages (between 2;00 and 3;00 years of age), when the production of translations like those in (3) is attested, children are said to start to differentiate between their two languages.

- (3a) Melanie: look, what's that?
 Leo: *oveja*.
 [sheep]_{Spanish}
 Melanie: how does mommy say *oveja*? do you know?
 Leo: sheep.
[2;02]
(FerFuLice corpus)
- (3b) Father: *Non, ne reste pas ici, il fait trop froid, va voir Deda.*
 [don't stay here, it's very cold, go and see Freda]_{French}
 Louis: *Papas Zimmer ist zu kalt* [to Deda].
 [daddy's room is very cold]_{German}
[2;06]
(Ronjat, 1913)
- (3c) Father: *Der Balg kann wohl noch etwas aufbleiben* [to mother].
 [the rascal can stay up a little longer]_{German}
 Hildegard: Mama, Papa says you can keep me up [to her mother].
[2;11]
(Leopold, 1939-1949)

hypothesis (Romaine, 1989), the unitary language system hypothesis versus the differentiated language system hypothesis (Genesee, 1989).

6 The language differentiation hypothesis has been favoured over the language fusion hypothesis on both theoretical and empirical grounds (see Meisel, 2001 for a review).

The capacity to translate involves, as seen in (3), that children can understand one language (Spanish in 3a, French in 3b and German in 3c) and reproduce the same content into the other language (English in 3a and 3c, and German in 3b), thus adapting to their interlocutor as well.

However, under the language differentiation hypothesis (e.g. Lindholm & Padilla, 1978a; Genesee, 1989; Meisel, 1989; De Houwer, 1990; 1995; Lanza, 1992; 1997; Quay, 1995; Genesee et al., 1995; Köppe & Meisel, 1995; Paradis & Genesee, 1996; Johnson & Lancaster, 1998; Wapole, 2000; Meisel, 2001; Genesee, 2003; Meisel, 2007), bilingual children can differentiate both languages from the first stages of their linguistic development. As their bilingual competence is still in development, it has an effect on the quantity and the type of translations found in their linguistic production, usually one-word lexical units, like those in (4).

- (4a) Mother: Was hat Papa im Mund?
 [what does dad have in his mouth?]_{German}
 Louis: *Pfeife.*
 [pipe]_{German}
 Father: *Qu'est-ce que c'est que ça?*
 [what is it?]_{French}
 Louis: *Pipe.*
 [pipe]_{French}
- [1;08]
 (Ronjat, 1913)
- (4b) Melanie: you want the water?
 Leo: uh.
 Melanie: can you say water?
 Melanie: what is this [holding up the cup of water]?
 Leo: ah! [reaching for the cup]
 Melanie: water?
 Leo: ah! [getting frustrated]
 [Melanie puts the cup on Leo's tray]
 Melanie: mommy's going to take this zucchini away, okay
 [taking the zucchini off Simon's tray?]
 Leo: *agua.*
 [water]_{Spanish}
- [1;02]
 (FerFuLice corpus)

These data point to the existence of translations (lexical pairs) in very early stages of acquisition, as early as the holophrastic or one-word stage. Within bilingual acquisition literature (e.g. Pearson et al., 1995;

Genesee et al., 1995; Nicoladis & Genesee, 1996; Pearson, 1998; Nicoladis & Secco, 2000; Nicoladis, 2001; De Houwer, 2006), these units are normally referred to as translation equivalents (words from two languages that have the same meaning). Those translation equivalents that appear close in the discourse, like the ones in (4) above, or within the same utterance, as the ones in (5) below, are of special interest for us here since they reflect a bilingual metalinguistic awareness linked to a translation activity.

- (5a) Michael: *Un autre* Johnnie. Another one.
 [another Johnnie]_{French}
- [3;06]
- (5b) English Investigator: What are they called?
 Michael: *Des bonbons.* A candy.
 [the chocolates]_{French}
- [3;09]
 (Swain, 1972)

These cases of NT have been termed differently in the bilingualism literature (i.e. duplication, lexical pairing, self-correction, reformulation), which indicates a certain trend to avoid the use of the term "translation" to refer to this particular linguistic production. In this way, Redlinger and Park (1980) refer to cases like those in (6) as duplication where the children, Danny and Henrik, use two equivalent words in their two languages within the same utterance and without pauses between them.

- (6a) Danny: She is painting *malen da.*
 [painting there]_{German}
- [1;11-2;06]
 (Redlinger & Park, 1980)
- (6b) Henrik: *Oui ja.*
 [yes]_{French} [yes]_{German}
- [1;11-2;06]
 (Redlinger & Park, 1980)

Vihman (1985) and Paradis et al. (2000) refer to juxtaposed translation equivalents as a type of code switching where there is a repetition of the same message in two languages, as in (7):

- (7) Sleeping *dodo.*
 [sleeping]_{English} [sleeping]_{French}
- [2;00-3;06]
 (Paradis et al., 2000)

Finally, Lanza (1997), analyzing the conversations maintained between an English/Norwegian bilingual child and her parents, points out how the child uses a communicative strategy called self-repair when the situation demands it, that is, when the child has to repair breakdowns in a conversation with her mother, as (8) shows:

- (8a) Mother: The cow! What's the cow doing right there?
 Siri: *Spis.*
 [eat]_{Norwegian}
 Mother: Hm?
 Siri: eat.
- [2;07]
(Lanza, 1997)
- (8b) Melanie: you wanna make something with the blocks?
 Simon: *sí.*
 [yes]_{Spanish}
 Melanie: what would you like to make?
 Simon: douse [: house].
 Melanie: two?
 Simon: *casa!*
 [house!]_{Spanish}
- [2;01]
(FerFuLice corpus)

These and other examples point to the fact that bilingual children can exhibit appropriate translation equivalents depending on the language of their interlocutor, which has been considered as an evidence that they can differentiate between their languages from very early stages of their bilingual development (Pearson et al., 1993; Genesee et al., 1995; Quay, 1995; Deuchar & Quay, 2000; Álvarez de la Fuente, 2007; Álvarez de la Fuente & Fernández Fuertes, in press); that is, the translation ability that bilingual children show along their linguistic development has been taken as a typical characteristic of the bilingual acquisition process. At the same time, the spontaneous and daily lexical translations performed by these children play an important role in the debate between the unitary system hypothesis versus the differentiated language system hypothesis, evidencing the separation of their two languages from the very initial stages in their bilingual acquisition process (Swain, 1972; Swain & Wesche, 1975; Bergman, 1976; Lindholm & Padilla, 1978b; Fernández Fuertes et al., 2007; Álvarez de la Fuente, 2007; Álvarez de la Fuente & Fernández Fuertes, in press).

3.2 NT as an inherent characteristic of bilingualism: *bilingual competence and translation competence parallelism*

The parallelism between the bilingual competence and the translation competence, in the case of simultaneous bilingual children, goes beyond the lexical pairings discussed above. In fact, since Harris (1977) stated that all bilinguals are able to translate naturally, many studies both in the field of bilingualism and in that of translation have been devoted to examine the relationship between bilingual competence and translation competence in bilingual speakers paying special attention to the necessary linguistic requirements for the development of both competences and the possible interactions between them. In particular, we will refer below to three sets of studies, chronologically ordered, which have used different types of data for their analyses (spontaneous versus experimental data; L1 bilingual versus L2 bilingual child data).

Harris and collaborators (Harris & Sherwood, 1978; Harris, 1980a; 1980b) have taken the translations produced by bilingual children as reported in pioneer studies on child bilingualism (Ronjat, 1913; Leopold, 1939-1949; Swain, 1972; Fantini, 1985) as the focus of their analysis in order to show how translation competence develops in line with bilingual competence. The analysis of the sample of spontaneous NT cases produced by Michael, a simultaneous bilingual child taken from Swain's (1972) study, leads Harris to conclude that a bilingual child goes through five stages in the development of his translation capacity: pre-translation, intrapersonal autotranslation, interpersonal autotranslation, transduction and conscious translation, as exemplified by Harris (1980b) with data like those in (9):

- (9a) *Pre-translation*
 Michael: Comb, *peigne*, *Peigne et comb.*
 [comb... comb and]_{French}
- [3;03]
(Swain, 1972)
- (9b) *Intrapersonal autotranslation*
 Louis: *Schiff bateau* [seeing a ship going through a river].
 [ship_{German} ship_{French}]
- [1;08]
(Ronjat, 1913)⁷

⁷ Harris (1980b) does not include an example of intrapersonal autotranslation but he does so in Harris & Sherwood (1978) from which example (9b) is taken.

(9c) *Interpersonal autotranslation*

Michael: I told you it's Marcel's.
 French researcher: *C'est ton ours, oui.*

[it's your bear, yes]_{French}
 Michael: *Non, c'est a Marcel.*
 [no, it's Marcel's]_{French}

[3;01-4;01]
 (Swain, 1972)

(9d) *Transduction*

English researcher: Ask her if she has any eggs.

Michael: *T'as-tu des oeufs* [to French researcher]?
 [do you have any eggs?]_{French}

[3;02]
 (Swain, 1972)

(9e) *Conscious translation*

English researcher: Tell her that the wolf knocked on the door.

Michael: *Elle a dit a fait ca, pis apres y a entre* [to French researcher].
 [she has said that she has done this and
 after that she has entered]_{French}

[3;07]
 (Swain, 1972)

According to Harris, these cases also lend support to the early differentiation hypothesis in that children are aware of the two languages they are acquiring as well as of the links that could be established between them through bidirectional translations. Also, throughout these five stages, the bilingual child shows a development in his translation competence and so he is able to use different translation strategies that go from what Harris terms *transcodification* (the translation of linguistic structures) to *interpretation* (the translation of the message or sense of the utterance). Although the five developmental stages put forward by Harris have been further refined (Álvarez de la Fuente, 2007), his work makes a strong proposal for the interrelation between bilingual awareness and translation activities.

Malakoff (1991; 1992) and Malakoff and Hakuta (1991) take as a point of departure the concept of translation competence proposed by Harris and Sherwood (1978) and they go a step forward arguing that, as a metalinguistic and communicative ability inherent to bilingualism, NT requires not only a competence in two languages but also the evaluation of meaning equivalences and the representation of the linguistic form of the structures underlying those equivalences. That is, natural translators must have a metalinguistic awareness that interacts with their translation competence.

In order to reach these conclusions, these authors analyse the experimental data obtained from a group of L2 bilingual children aged 9 to 12 and elicited through a written task conducted in an academic context. This set of data is, therefore, very different from the spontaneous NT cases produced by L1 bilingual children in daily conversations with their parents that Harris analyses. In spite of this, the conclusions obtained by Malakoff and Hakuta and Harris and Sherwood with regards to tying bilingual competence and translation competence go in the same direction. And so the use of a variety of translation strategies (periphrasis, reformulations, etc.) is equally attested in these L2 data.

However, due to the nature of the data they analyse and, in particular, to the type of test they use to elicit the data (the translation of 20 sentences) and the unbalanced status of the two languages (L1 versus L2), these authors move away from Harris and Sherwood's approach in some respects. For Malakoff and Hakuta translation competence is similar to other linguistic competences (speaking, listening, writing and reading) in that it improves thanks to an input based on translation tasks where the children have to translate some sentences, like the one in (10), designed specifically "to elicit source language errors, that is, errors that reflect interference of the structure or phrasing of the source language sentence" (Malakoff, 1992: 521).

(10) Source language: *J'ai une grande maison bleue*
 Literal translation: I have a big house blue

The sentences in (10), thus, evidence a potential area of interference since the relative order between nouns and their adjectives in French and English is different: adjectives tend to appear pre-nominally in English but post-nominally in French. With examples like the one in (10) children are instructed on how to resolve conflicting grammatical properties between the two languages in order to translate correctly. This explicit instruction together with the written mode that these academic tasks involve make these data differ from the natural input and the oral modality that characterize the L1 bilingual data discussed by Harris. A further important difference relates to the fact that Malakoff and Hakuta's studies deal with L2 bilingual children whose competence in the two languages is unbalanced. According to the authors, this is what makes these children not to have a conscious knowledge of the linguistic differences between their two languages.

However, the fact that these L2 bilingual children are able to render a message using two different languages implies they must have some sort of metalinguistic knowledge, much in the same way L1 bilinguals do. So that what enables these speakers to translate is not an explicit knowledge tied to a formal instruction or a professional context (Srivastava & Gupta, 1989; Bialystok, 2001), but an implicit or intuitive knowledge of “abstract aspects of linguistic structures” (Bialystok, 2001: 124) in both languages. However, in a direct comparison with L1 bilinguals, Malakoff and Hakuta (1991) argue that these L2 children’s translations are not completely adequate because they lack proficiency in their L2 and so their linguistic competence is in a way defective. In fact, Malakoff (1991) concludes that L1 bilinguals have a greater cognitive control on the translation activity within an academic context because of their experience as translators in a familiar context.

The third set of studies we would like to discuss here pertains to analyses conducted on longitudinal spontaneous data. The emergence and development of both the bilingual and the translation competences finds a perfect framework in this type of data where we can put to the test whether the complexity of translation productions increases as proficiency in the two L1s increases. Although pioneering studies and more recent ones (e.g. Ronjat, 1913; Leopold, 1939-1949; Fantini, 1985; Vihman, 1985; Saunders, 1988; Lanza, 1988; Döpke, 1992; Köppe & Meisel, 1995; Comeau & Genesee, 2001; Albrecht, 2004) include cases where L1 bilingual children use their translation ability in order to maintain a conversation, like those in (11), none of them focused specifically on NT but rather on code-switching. In fact, in some of these studies (e.g. Vihman, 1985) the existence of some translation production is acknowledged but no example is provided and no further information supplied so that it is impossible to compare these NT cases to others produced by other bilingual children.

- (11a) Ivar: *Oh der kann nich fahr(en) der auto.*
 [Oh this one can't move the car]_{German}
 French speaker: *Qu'est-ce qu'elle a fait l'auto la voiture?*
 [what has it done the auto the car?]_{French}
 Ivar: *peut peut pas rouler.*
 [(it) can can not move)]_{French}
- [2;07]
 (Köppe & Meisel, 1995)

- (11b) Siri: *Klappe hand.*
 [clap]_{Norwegian}
 Mother: *Hm?*
 Siri: *Clap hand.*
 Mother: *Did you clap your hands?*
 Siri: *mm.*
- [2;02]
 (Lanza, 1988)
- (11c) Alx: *There's water right there.*
 Investigator: *Quoi?*
 [what?]_{French}
 Alx: *Water!*
 Investigator: *Je comprends pas.*
 [I don't understand]_{French}
 Alx: *De l'eau!*
 [water!]_{French}
- [3;02]
 (Comeau & Genesee, 2001)

What the examples in (11) actually reflect is the existence of NT cases in the longitudinal spontaneous production of these bilingual children, from very early stages and involving different language pairs. However, to the best of our knowledge, very few studies have been conducted on NT through the analysis of longitudinal data except for Harris (1980a and 1980b) and a few others (Álvarez de la Fuente and colleagues; Beckmannova, 2004)⁸.

In particular, Álvarez de la Fuente (2007) and Álvarez de la Fuente and Fernández Fuertes (in press) conduct a study of NT along the lines of Harris (1980a; 1980b) and Harris and Sherwood (1978). These authors analyse the longitudinal linguistic production of a set of English/Spanish L1 bilingual twins from the FerFuLice corpus (Fernández Fuertes & Licerias, 2009) available in CHILDES (MacWhinney, 2000). These works offer a pioneering study both in bilingual acquisition and translation literature because of three main reasons: first, because the longitudinal period they cover is 4 years (since the twins were 2;0 up to 6;03 years old); second, because the data involve mainly spontaneous production but a set of experimental data is also included (in which the children are induced to act as

8 Swain's studies (Swain, 1972; Swain & Wesche, 1972; Swain, 1973; Swain et al., 1974) include experimental production data from a bilingual child as well but she is not interested in the analysis of NT production itself but rather on how to use this type of productions to investigate how certain question structures are acquired by the child in her study.

interpreters between two monolingual speakers); and third, because of the linguistic analysis carried out, which examines the development of the children's genuine translation abilities that have not been learned through formal instruction. In this last case, the authors propose a series of variables that render the linguistic and contextual patterns that the children follow when they translate orally. Their analysis shows that both children use a range of linguistic and communicative strategies which enable them to translate when the situation demands it, as in (12), where Simon translates into Spanish what he has just said to his mother in English so that his Spanish-speaking father gives him what he wants.

- (12) Simon: Mommy I want my lollipop I want to suck my lollipop.
 Melanie: After breakfast.
 Leo: My lollipop...
 [the boys go off camera with their father]
 Simon: *Yo quiero mi chupa chups* [to his father].
 [I want my lollipop]_{Spanish}
- [3;09]
 (FerFuLice corpus)

A total of 172 NT cases are retrieved and studied from a longitudinal perspective so that it is evident that the NT outputs produced by both children show a development in their translation competence hand in hand with that of their bilingual competence: the initial stage (2;00-3;00) is characterized by the use of lexical pairings, like that in (13a), while in more advanced stages (4;09-6;03) NTs reflect they are fully sensitive to the linguistic properties of both languages and the meeting of specific contextual needs, as in (13b).

- (13a) Melanie: what's that?
 Simon: *pavo*.
 [turkey]_{Spanish}
 Melanie: what's that honey?
 Leo: turkey.
- [2;02]
 (FerFuLice corpus)

- (13b) [context: the researchers and the twins are playing with an English/Spanish bilingual poster on the weather, seasons, days of the week, months, etc. and they have to mark the corresponding box for the weather, the day, etc. The twins are asked to act as interpreters between the English monolingual researcher and the Spanish monolingual one]
 Susana: is she gonna mark them all?

- Esther: *qué?*
 [what?]_{Spanish}
 Simon: *que no tienes que marcar todas!*
 [that you don't have to mark them all!]_{Spanish}
- [4;11]
 (FerFuLice corpus)

One of the linguistic proposals these authors put forward is concerned with the development of the twins' translation competence and, in particular, with the grammar-interpretation mapping that shapes the NT activity (see Álvarez de la Fuente & Fernández Fuertes, in press). This mapping implies that children are able to separate both languages from very early stages of their bilingual development (thus arguing for the differentiation hypothesis discussed in 3.1. above). And, most importantly, this mapping involves that they are able to keep an adequate conceptual-semantic relationship between the source utterance and the target utterance, while observing the grammatical properties of the two languages and maintaining the communicative equivalence as the essential component of their translations, as pointed out by Harris (1980a), Malakoff and Hakuta (1991) and Malakoff (1992), and as the examples in (14) show.

- (14a) [context: Simon tries to turn on a toy but he cannot do it]
 Simon: *no puedo no puedo*.
 [I can't I can't]_{Spanish}
 Melanie: how do you say *no puedo* in English?
 Simon: help.
- [2;05]
 (FerFuLice corpus)

- (14b) [context: they are playing a card game and Todd, one of the English speakers, puts a book in front of his cards]
 Simon: *no valen muros*.
 [you can't put walls]_{Spanish}
 Susana: what? sorry?
 Raquel: Simon, *hay que decirles cuáles son las normas*,
 hay que decirles que no valen muros.
 [Simon, you have to tell them which are the norms,
 you have to tell them that they can't put walls]_{Spanish}
 Raquel: *tienes que decírselo en inglés* ok?
 [you have to tell them in English]_{Spanish}
 Simon: you can't do that [to Todd].
 Todd: you can't do that? what?
 Simon: you can't put things there because
 then you can't see anything...

[5;05]
 (FerFuLice corpus)

In short, what Álvarez de la Fuente and her colleagues propose is to take into account the translations done by bilingual children in order to analyse the mechanisms and strategies they use when translating, and, more specifically, to describe how their translation competence emerges, which properties define it and how it evolves. The idea behind this type of analysis is Harris' (1980b: 611) proposal that "the data from translatology (the scientific study of translation) should be drawn primarily from NT instead of from literary, technical and other professional or semi-professional genres of translation".

4. NT Performed by Adults: Natural Translators versus Professionals

In line with the previous quotation by Harris (1980b), as well as with Harris (1980b) and Harris and Sherwood's (1978) proposals, different translation theorists have also set to investigate how non-professional translators translate and, specifically, adult speakers who are being trained in translation.

Two main opposing views are discussed below with regards to how PT and NT are related: that of Toury's (1986) who argues that only PTs should be considered real translations; and that of Srivastava and Gupta's (1989) and Lörscher's (1992) who rather argue for a more comprehensive notion of translation in which both PT and NT have their place.

In particular, Toury (1986) agrees with Harris and Sherwood (1978) that a human being has a universal innate ability to translate which coexists with bilingualism. However, he differs from them when stating that both phenomena (translation ability and bilingualism) do not evolve in a parallel way and that being bilingual does not imply being able to translate (as also argued by Delisle, 1984; Newmark, 1988; Hurtado Albir, 1999; PACTE, 2005; among others). In fact, according to his argumentation, bilingual competence is the starting point of translation competence and, at the same time, it is a previous and essential condition, although not sufficient, for the development of translation competence: an academic training in trans-

lation is also necessary so that translation competence evolves into an expert knowledge with a social function⁹.

From this perspective, Toury considers that Harris reduces NT (at least the one done by bilingual children) to a mere competence of languages when in fact it is an additional competence (much in line with Malakoff and Hakuta). That is, the knowledge of certain languages by itself does not make a bilingual speaker proficient in translating. Certain extralinguistic factors (especially social and cultural ones) also need to come into play: what he calls the *native translator* must receive a formal and specialized training (*nurture*) together with a dynamic professional experience as a translator to fill the gap between his innate predisposition (*nature*) and the development of translation competence so that he can become a professional translator (and not just a bilingual with an innate predisposition to translate).

Toury's study (1984) is concerned with the teaching of translation in an institutional context and so he considers translation as a linguistic (mainly written) activity with certain textual and stylistic characteristics that appear at different linguistic levels (lexico-grammatical, semantic, textual, sociolinguistic and pragmatic). By the same token, a translator is said to be an L1 or L2 adult bilingual who has been trained as a translator and become so in order to fulfil a certain social function. Therefore, according to Toury (1986) and other authors (Shreve, 1997; Darwish, 2000; Wei, 2000; Azbel Schimdt, 2005, etc.), NT is not considered a type of translation or even translation *per se* because it is not developed in an academic or professional context.

Other researchers, however, make an attempt to distinguish PT from non-PT while considering both as translations although with a different status. The rationale goes as follows: in the case of child natural translators, they are developing their linguistic competences (both bilingual and translation ones) and, from a pragmatic perspective, their translations are adapted to the contexts and participants of the communicative interaction, fulfilling a social function within a familiar and daily context. At the same time, bilingual children need

⁹ This social function would not apply, according to Toury (1986), to the one fulfilled by language mediators or brokers [see section 2] because, even though their translations are motivated by certain social needs, they do not receive formal instruction in translation so that their translations are not adequate from a textual viewpoint and are not socio-culturally acceptable either, as Toury argues.

not become professional translators, and so comparing NT with PT would amount to compare monolingual acquisition and the resources used by a monolingual child with those used by a philologist, for example. This is what Srivastava and Gupta (1989) propose by establishing the following parallelisms: (1) monolingual speaker – linguist; and (2) bilingual speaker – expert in translatology. In other words, we are dealing with the same phenomenon, that of translation, which exhibits different idiosyncratic properties depending on different factors and, thus, it should not be reduced to a simple hierarchy (NT at the bottom versus PT at the top) or to a quality scale (NTs are worse than PTs). Instead both should be treated as basically the same linguistic communication package.

Along the same line, Lörcher (1988; 1992) proposes a typological distinction as the basis of his functional model of translation competence: he takes into consideration not only the intrinsic nature of translations but also the social and communicative contexts where these translations are performed. Specifically, Lörcher (1992) suggests that translation ability is a rudimentary ability that derives naturally from bilingualism but it does not necessarily have to develop into a more elaborated (i.e. professional) type of skill. Therefore, he goes for a more comprehensive definition of the term translation so that depending on the social and communicative contexts (i.e. extralinguistic factors) as well as on the different intrapersonal factors (i.e. type of bilingual, nature of instruction, etc.), different forms of translation emerge: the rudimentary translation or mediation (performed by natural translators), the pedagogical translation (by L2 learners or translation apprentices) and the professional translation (by translation professionals)¹⁰.

Lörcher's (1992) proposal derives from a comparative analysis of translation experimental data from both L2 bilinguals and natural translators. In particular, he compares the translations done by L2 learners in their initial stage of their L2 acquisition process with the auto-translations done by natural translators although in a formal rather than in a natural context (a classroom setting instead of a

home setting). He concludes that L2 learners' partial competence enables them to translate but in a superficial and literal way, rendering products where formal textual equivalences take priority over communicative ones. Although these types of translations have a didactic purpose (assessing the linguistic competence in the L2), Lörcher (1992) confirms that they would be as interesting as NTs in order to analyse the development of translation competence itself.

The studies referred to above exemplify the polarized consideration of the translation activity. The main trend, especially in the later years, goes, however, in the direction of pointing out the differences and similarities that exist between both types of translations (i.e. PT and NT) while establishing a permanent connexion between them. In this way, PT is a high valued activity carried out by trained professionals who have to adhere to certain norms of translation, while NTs are rudimentary mediations whose main aim is to communicate a message in an acceptable and comprehensible way rather than to follow translation standards, as defended by Harris (1992).

Within this context, two main lines of analysis could be discussed which try to shed light on two crucial aspects of translation by analysing adult data: how linguistic competence affects translation competence in the case of L2 speakers; and how L1/L2 bilinguals' translations are different from those performed by professional translators.

4.1 NT as a method to infer the representation of bilingual memory

Parallel to the way translation equivalents are used to infer how the bilingual lexicon is organized in the mind of bilingual children (see section 3.1. above), research conducted on experimental psycholinguistics has also used NT as a tool to analyse how access to the L2 lexicon is achieved in the case of adults (Potter et al., 1984; De Bot, 1992; Kroll & Sholl, 1992; De Groot et al., 1994; Kroll & Stewart, 1994; Sholl et al., 1995; Kroll et al., 1998; Gollan & Kroll, 2001; among others). By using experimental tests based on images designation, semantic categorization and oral translations from the L2 to the L1 (direct) or from the L1 to the L2 (inverse), these studies investigate how the lexicon is organized in the L2 bilingual's mind and what type of lexical or conceptual connection is established between the two

¹⁰ Sayols Lara (2002) considers these three different types of translation do not have to be necessarily included in a *continuum* because, for instance, L2 bilinguals do not start as natural translators (since they are not L1 bilinguals).

languages. In most of these experimental tasks, L2 bilingual adults or L2 adult learners have to translate a word in one language into the other (production test) and they have to decide whether both words are translation equivalents (recognition test).

The results of these experimental data lead to the proposal of two different models that try to capture the connections between the lexical representation of the L1 and the L2. In this way, the word-association model establishes that the relationship between the L1 and the L2 is lexical in nature, so that the access to concepts or meanings of L2 words is produced through a process of translation in which the equivalent L1 words are activated. In the case of the conceptual-mediation model, the L1 and L2 lexicons have access to a common conceptual representation in an independent way, so that translation between both languages would take place by accessing directly the conceptual level of the L2 word.

The general conclusion these studies reach is that all bilinguals, regardless of the level of competence in both languages, are able to access the concepts of L2 words. On this view, they suggest that both models (i.e. word-association and conceptual-mediation) account for this reality but they describe different stages in the L2 developmental process: in the L2 learning process, bilinguals have to go through an initial stage where they access the meaning of the L2 words through the L1 and, as they acquire a higher proficiency in the L2, the conceptual mediation between both languages will increase, although the lexical connections will stay active.

This proposal can have important applications to the analysis of the bilingual acquisition process (especially that related to L2 acquisition). However, authors such as Pavlenko (2000) consider that translation tasks do not constitute a method sensitive enough to differentiate the diverse types of bilinguals, since most of the participants in the psycholinguistic studies mentioned before are usually adult L2 apprentices but not L1 bilinguals. In this last case, as defended by De Groot et al. (1994), the distinction between direct and indirect translation would have to be reconsidered. In any case, the main contribution of these studies lies in their emphasis on how the bilingual lexicon is organized, that is, on the internal requirements that shape translations as performed by different types of bilingual speakers.

4.2 NT in empirical translation studies:

L1 against L2 bilingual and professional adults' performance

The investigation of the translation process developed in Lörscher's works (1988; 1992) provides a psycholinguistic empirical framework based on the comparison of the translation performance of different groups of participants and designed to reach a variety of goals. Different studies follow this methodology and, in particular, they have mainly followed two lines of investigation: the written translation process¹¹ (Jääskeläinen, 1993; Gerloff, 1988; Jääskeläinen & Tirkkonen-Condit, 1991; Kiraly, 1995; Englund Dimitrova, 2005, etc.) and the translation strategies that participants use during this process in order to solve translation problems (Krings, 1986; 1987; Tirkkonen-Condit, 1990; Lörscher, 1992; Séguinot, 1991; Jensen, 1999, etc.). Apart from computer programs and translation diaries, most of these research studies are conducted with the method called *Thinking-Aloud Protocol* (TAP) that consists on asking participant(s) to verbalize their thoughts while they are translating.

Both research approaches are also interested in the differences between experienced and novice translators and interpreters' performance. Data from professional translators are, thus, compared to either translation students (Jääskeläinen, 1993; Tirkkonen-Condit, 1990; Jääskeläinen & Tirkkonen-Condit, 1991; Kiraly, 1995; Jensen, 1999; Dragsted, 2005), or foreign languages students (Krings, 1986; 1987; Königs, 1987) or untrained bilinguals (Gerloff, 1988; Dillinger, 1994; Christoffels et al., 2003; Gómez Hurtado, 2005; Macizo & Bajo, 2006; Cossato, 2008¹²). The empirical work is diverse and, in the majority of the cases, participants are tested using both written and oral translation tasks.

11 Although empirical translation research has focused mostly on written translation, there are also empirical studies that deal with interpretation, such as Moser-Mercer (1994), Padilla et al. (1995), Pöschhacker (1995), Gambier et al. (1997), Jiménez (1999), Christoffels et al. (2003), etc.

12 Cossato's (2008) work merits further attention because it is the only reference found (apart from Lörscher's (1988, 1992)) where there is an attempt to show the differences between professional interpreters and young untrained bilinguals, with a special reference to bilingual children's perception of their role as interpreters.

Results point to two not necessarily opposing views. On the one hand, most works point out that formation and experience are important factors when translating and that is why it has traditionally been said that bilinguals have difficulties in this type of activity (Von-Raffler, 1970; Kirstein, 1972; Steiner, 1975; Wei, 2000; among others). Also, as Göpferich and Jääskeläinen (2009) defend, experience in translation helps solve problems of high lexical and grammatical complexity, and also makes speakers take into consideration aspects such as the function and the audience of the translation product and so it makes them produce less literal translations. On the other hand, other works hold that there are few or no differences between both groups and, then, training in translation does not necessarily imply a better performance (Dillinger, 1994; Kiraly, 1995; Christoffels et al., 2003).

However, although interesting as a source of information about how translation competence works, these studies have been the object of criticism specially related to the type of data used and how these are interpreted. In particular, Orozco (2002) and Göpferich and Jääskeläinen (2009) point out three important factors: (1) the methods of data elicitation do not render authentic situations in the sense that, for instance, in TAP participants have to translate and, at the same time, think aloud, so the activity itself is not natural and one action could be said to interfere with the other; (2) the groups of participants from one study to the next are too heterogeneous to be compared so that professionals may have a very short or long previous experience on translation, translation students could belong to different course levels, foreign language students can have different degrees of proficiency in their L2 and, finally, most of the time bilinguals are in fact L2 and not L1 bilinguals; and (3) none of these studies shows the actual development of translation competence from one stage (students, for example) to the next (professionals). In fact, recent empirical investigations on translation (e.g. Azbel Schmidt, 2005; Göpferich et al., 2007) have started using longitudinal data in order to actually analyse the development of translation competence.

5. Concluding Remarks

During the past 25 years, the branch of translation studies which focuses on investigating translation processes empirically has grown into a substantial area of research. The results obtained can reveal but a fraction of the complex phenomena involved in translation but they offer a more comprehensive picture of what translation is and what is behind the translation process itself.

In this chapter, we have offered a review of works conducted on a specific type of translation, NT, as the one done by bilinguals with no formal training in translation. The amount of studies conducted on different aspects of NT shows how translation is a complex phenomenon that necessarily involves linguistic, social, cultural, psychological and developmental factors.

With the incorporation of the study of NT in the field of translation, a shift has been progressively made from a rather externally-oriented approach, in which formal criteria were the centre of attention, to a socially-oriented approach, where the speaker is placed at the forefront of the debate and, in particular, the speaker's ability to mediate in a linguistically and culturally adequate context, to finally reach an internally-oriented approach where the way the two languages of the bilingual (either child or adult, L1 or L2) are mentally represented is the main research interest since this representation is what actually shapes the type of translation activity a bilingual produces (either NT, PT or any other).

As we have presented, some studies focus on the models of translation competence development and how they can account for the way L1 and L2 bilinguals, and non-professional translators in general, translate (Harris, 1980a; 1980b; Toury, 1984; 1986; Srivastava & Gupta, 1989; Malakoff & Hakuta, 1991; Lörscher, 1992; Álvarez de la Fuente, 2007). From this perspective, the main contribution is made by Harris' proposal (1977, 1980b, 1992) that the study of NT should be at the basis of the scientific study of translation since it is a natural ability previous to the development of a professional ability. That is, bilingual children, as "initial" translators, are considered as the stem source of the analysis of translation in a natural state, since they use certain innate mechanisms that would constitute the basis

of any translation activity. At the same time, this natural translation competence does not have to develop necessarily into a professional competence (much in the same way not all speakers become philologists) but it can be used as an interesting reference for translation theorists since it constitutes the emergence of an innate ability and since it comprises the bare essence of translation. In this sense, the study of NT done by bilingual children or adults (both in spontaneous and experimental situations) and the linguistic strategies involved in this phenomenon are a necessary source of information in order to observe how translation competence emerges and how its development interacts with the development of L1/L2 bilingual language acquisition. This information of the "natural" translation process would surely both benefit the understanding of the PT process as well as help in the elaboration of specific learning programs on how to translate. In this sense NT contributes to offer a broader picture of what translation actually involves.

References

- ALBRECHT, E., 2004, *I can speak German – und Deutsch. The Development and Use of Code-Switching among Simultaneous and Successive English-German Bilingual Children*. Doctoral dissertation, Albert-Ludwigs-University.
- ÁLVAREZ DE LA FUENTE, E., 2007, *Análisis lingüístico de la traducción natural: datos de producción de dos niños gemelos bilingües inglés/español*. Doctoral dissertation, University of Valladolid. <<http://uvadoc.uva.es/handle/10324/71>> (February 2011).
- ÁLVAREZ DE LA FUENTE, E. and R. FERNÁNDEZ FUERTES (2012), 'How two English/Spanish bilingual children translate: in search for bilingual competence through natural interpretation', in JIMÉNEZ, A. and M. J. BLASCO (eds.) *Interpreting Brian Harris. Recent developments in Natural Translation and Interpreting Studies*. Vienna: Peter Lang.
- ANGELELLI, C., 2010, 'A professional ideology in the making: Bilingual youngsters interpreting for their communities and the notion of (no) choice', *Translation and Interpreting Studies*, 5(1), pp. 94-108.
- AZBEL SCHMIDT, M., 2005, 'How do you do it anyway? A longitudinal study of three translator students translating from Russian into Swedish', *Stockholm Slavic Studies*, 30, pp. 261. Stockholm University. (<<http://su.diva-portal.org/smash/get/diva2:197703/FULLTEXT01>>).
- BAYLEY, R., H. HANSEN-THOMAS and J. LANGMAN, 2005, 'Language brokering in a middle school science class', in COHEN, J., K. T. MCALISTER, K. ROLSTAD & J. MACSWAN (eds.) *ISB4: Proceedings of the 4th International Symposium on Bilingualism*, pp. 223-232. Somerville, MA: Cascadilla Press.
- BECKMANNOVA, P., 2004, *Dolmetschen als angeborene Fähigkeit: das Phänomen des natürlichen Dolmetschens bei einem bilingualen Kind im Alter von drei bis fünf Jahren – ein Tagebuch*. Doctoral dissertation, University of Vienna.
- BERGMAN, C. R., 1976, 'Interference vs. independent development in infant bilingualism', in KELLER, G. D., R. V. TAESCHNER & S. VIERA (eds.) *Bilingualism in the bicentennial and beyond*, pp. 86-96. New York: The Bilingual Review Press.
- BIALYSTOK, E., 2001, *Bilingualism in development. Language, literacy, and cognition*. Cambridge: Cambridge University Press.
- BULLOCK, C. and B. HARRIS, 1997, 'Schoolchildren as community interpreters', in CARR, S. E. & R. ROBERTS (eds.) *The critical link: interpreters in the community*, pp. 227-235. Amsterdam: John Benjamins.
- BUTLER, Y. G. and K. HAKUTA, 2004, 'Bilingualism and second language acquisition', in BHATIA, T. K. & W. C. RITCHIE (eds.) *The handbook of bilingualism*, pp. 114-144. Malden, MA: Blackwell.
- CHRISTOFFELS, I. K., A. M. B. DE GROOT and L. J. WALDORP, 2003, 'Basic skills in a complex task: a graphical model relating memory and lexical retrieval to simultaneous interpreting', *Bilingualism: language and cognition*, 6(3), pp. 201-211.
- COMEAU, L. and F. GENESEE, 2001, 'Bilingual children's repair strategies during dyadic communication', in CENOZ, J. & F. GENESEE (eds.) *Trends in bilingual acquisition*, pp. 231-256. Amsterdam: John Benjamins.
- COSSATO, D., 2008, *La mediazione linguistica in contesti bilingui: la parola ai bambini*. MA dissertation, University of Trieste.
- DARWISH, A., 2000, 'Is translation natural?', <<http://www.translocutions.com/>> (February 2011).
- DE BOT, K., 1992, 'A bilingual production model: Levelt's 'speaking' model adapted', *Applied Linguistics*, 13, pp. 1-24.

- DE GROOT, A. M. B., L. DANNENBURG and J. G. VAN HELL, 1994, 'Forward and backward word translation by bilinguals', *Journal of memory and language*, 33, pp. 600-629.
- DE HOUWER, A., 1990, *The Acquisition of Two Languages from Birth*. Cambridge: MIT Press.
- DE HOUWER, A., 1995, 'Bilingual language acquisition', in FLETCHER, P. & B. MACWHINNEY (eds.) *The handbook of child language*, pp. 219-250. Cambridge, MA: Blackwell.
- DE HOUWER, A., 2006, 'Bilingual language development: Early years', in K. BROWN (ed.) *Encyclopedia of language and linguistics*, 1, pp. 780-786. Amsterdam: Elsevier.
- DELISLE, J., 1984, 'L'analyse du discours comme methode de traduction. Theorie et pratique', *Cahiers de traductologie*, 2, pp. 24-46.
- DEUCHAR, M. and S. QUAY, 2000, *Bilingual acquisition: theoretical implications of a case study*. Oxford: Oxford University Press.
- DILLINGER, M., 1994, 'Comprehension during interpreting: What do interpreters know that bilinguals don't?', in LAMBERT, S. & B. MOSER-MERCER (eds.) *Bridging the gap: Empirical research in simultaneous interpretation*, pp. 155-189. Amsterdam: John Benjamins.
- DÖPKE, S., 1992, *One parent, one language. An interactional approach*. Amsterdam: John Benjamins.
- DORNER, L. M., M. F. ORELLANA and C. P. LI-GRINING, 2007, 'I helped my mom' and it helped me: Translating the skills of language brokers into improved standardized test scores', *American journal of education*, 113(2), pp. 451-478.
- DORNER, L. M., M. F. ORELLANA and R. JIMÉNEZ, 2008, "'It's one of those things that you do to help the family": Language brokering and the development of immigrant adolescents', *Journal of adolescent research*, 23(5), pp. 515-543.
- DRAGSTED, B., 2005, 'Segmentation in translation: Differences across levels of expertise and difficulty', *Target* 17(1), pp. 49-70.
- ENGLUND DIMITROVA, B., 2005, *Expertise and explicitation in the translation process*. Amsterdam: John Benjamins.
- FANTINI, A. E., 1985, *Language acquisition of a bilingual child: a sociolinguistic perspective (to age ten)*. Clevedon: Multilingual Matters.
- FERNÁNDEZ FUERTES, R. and J. M. LICERAS (coords.), 2009, 'The FerFuLice corpus: English/Spanish bilingual twins. CHILDES database', <<http://chilides.psy.cmu.edu/data/Biling/FerFuLice.zip>> (February 2011).
- FERNÁNDEZ FUERTES, R., E. ÁLVAREZ DE LA FUENTE and J. M. LICERAS, 2007, 'Los datos de adquisición bilingüe inglés/español: separación y mezcla de códigos', in MAIRAL USÓN, R. (ed.) *Aprendizaje de lenguas, uso del lenguaje y modelación cognitiva: perspectivas aplicadas entre disciplinas*, pp. 247-261. Madrid: UNED.
- GAMBIER, Y., D. GILE and C. H. TAYLOR (eds.) 1997, *Conference interpreting: Current trends in research. Proceedings of the international conference on interpreting: "What do we know and how?"*. Amsterdam: John Benjamins.
- GENESE, F., 1989, 'Early bilingual development: one language or two?', *Journal of child language* 16(1), pp. 161-179.
- GENESE, F., 2003, 'Rethinking bilingual acquisition', in DEWAELE, J-M, A. HOUSEN & L. WEI (eds.) *Bilingualism: beyond basic principles. Festschrift in honour of Hugo Baetens Beardsmore*, pp. 204-228. Clevedon: Multilingual Matters.
- GENESE, F., E. NICOLADIS and J. PARADIS, 1995, 'Language differentiation in early bilingual development', *Journal of child language* 22(3), pp. 611-631.
- GERLOFF, P. 1988, *From French to English: A look at the translation process in students, bilinguals and professional translators*. Doctoral dissertation, Harvard University.
- GOLLAN, T. H. and J. F. KROLL, 2001, 'Bilingual lexical access', in RAPP, B. (ed.) *Handbook of cognitive neuropsychology: what deficits reveal about the human mind/brain*, pp. 321-345. Philadelphia: Psychology Press.
- GÓMEZ HURTADO, M. I., 2005, *Traducir: ¿capacidad innata o destreza adquirida?* Doctoral dissertation, University of Granada.
- GÖPFERICH, S. and R. JÄÄSKELÄINEN, 2009, 'Process research into the development of translation competence: where are we, and where do we need to go?' *Across languages and cultures*, 10(2), pp. 169-191.
- GÖPFERICH, S., G. BAYER-HOHENWARTER and H. STIGLER, 2007, *TransComp: The development of translation competence*. Graz: University of Graz. <<http://gams.uni-graz.at/transcomp>> (February 2011).
- HALL, N., 2003-2005, *Children and adolescents as language brokers*, Research project funded by the Economic and Social Research Council. Manchester Metropolitan University (United Kingdom). <<http://www.esri.mmu.ac.uk/resprojects/brokering/seminars.php>> (February 2011).
- HALL, N., 2004, 'The child in the middle: agency and diplomacy in language brokering events', in HANSEN, G., K. MALMKAER & D. GILE (eds.) *Claims, changes and challenges in translation studies*, pp. 285-297. Amsterdam: John Benjamins.

- HARRIS, B., 1973, 'La traductologie, la traduction naturelle, la traduction automatique et la sémantique', in McA'NULTY, J. et al. (eds.) *Problèmes de sémantique* (Cahier de linguistique 2), pp. 133-146. Montreal: Presses de l'Université du Québec.
- HARRIS, B., 1977, 'The importance of natural translation', *Working papers in bilingualism*, 12, pp. 96-114.
- HARRIS, B., 1978, 'The difference between natural and professional translation', *Canadian modern language review/Revue canadienne des langues vivantes*, 34, pp. 417-427.
- HARRIS, B., 1980a, 'How a three-year-old translates', in AFRENDAS, E. A. (ed.) *Patterns of bilingualism*, pp. 370-393. Singapore: National University of Singapore Press.
- HARRIS, B., 1980b, 'Elicited translation by a three-year old English/French bilingual', in INGRAM, D., F. C. C. PENG & P. DALE (eds.) *Proceedings of the first international congress for the study of child language*, pp. 610-631. Association for the study of child language: University Press of America.
- HARRIS, B., 1992, 'Natural translation: a reply to Hans P. Krings', *Target*, 4(1), pp. 97-103.
- HARRIS, B., 2003, 'Aspects of interpretation', *Curso superior de traducción*, Valladolid: Universidad de Valladolid.
- HARRIS, B., 2009, *Unprofessional translation*. <<http://unprofessional-translation.blogspot.com/>> (February 2011).
- HARRIS, B. and B. SHERWOOD, 1978, 'Translating as an innate skill', in GERVER, D. & W. H. SINAÏKO (eds.) *Language interpretation and communication*, pp. 155-170. New York: Plenum.
- HURTADO ALBIR, A., 2001, *Traducción y traductología*, Madrid: Cátedra.
- JÄÄSKELÄINEN, R., 1993, 'Investigating translation strategies', in TIRKKONEN-CONDIT, S. & J. LAFFLING (eds.) *Recent trends in empirical translation research*, Studies in languages. Joensuu, Finland: Faculty of Arts.
- JÄÄSKELÄINEN, R. and S. TIRKKONEN-CONDIT, 1991, 'Automatised processes in professional vs. non-professional translation: a think-aloud protocol study', in TIRKKONEN-CONDIT, S. (ed.) *Empirical research in translation and intercultural studies*, pp. 89-110. Tübingen: Narr.
- JENSEN, A., 1999, 'Time pressure in translation', in HANSEN, G. (ed.) *Probing the process in translation: methods and results, Copenhagen studies in language*, 24, pp. 103-120. Copenhagen: Samfundslitteratur.
- JIMÉNEZ, A., 1999, *La traducción a la vista. Un análisis descriptivo*. Doctoral dissertation, University Jaume I.
- JOHNSON, C. E. and P. LANCASTER, 1998, 'The development of more than one phonology: a case study of a Norwegian-English bilingual child', *International journal of bilingualism*, 2, pp. 265-300.
- KIRALY, D. C., 1995, *Pathways to translation*. Kent: The Kent State University Press.
- KIRSTEIN, B. H., 1972, 'Reducing negative transfer: two suggestions for the use of translation', *Modern language journal*, 56(2), pp. 73-78.
- KNAPP-POTTHOFF, A. and K. KNAPP, 1986, 'Interweaving two discourses. The difficult task of the non-professional interpreter', in HOUSE, J. & S. BLUM-KULKA (eds.) *Interlingual and intercultural communication. Discourse and cognition in translation and second language acquisition studies*, pp. 151-168. Tübingen: Narr.
- KNAPP-POTTHOFF, A. and K. KNAPP, 1987, 'The man (or woman) in the middle: discursal aspects of non-professional interpreting', in KARLFRIED, K., W. ENNINGER & A. KNAPP-POTTHOFF (eds.) *Analyzing intercultural communication*, pp. 181-211. Berlin: Mouton.
- KÖNIGS, F. G., 1987, 'Was beim Übersetzen passiert. Theoretische Aspekte, empirische Befunde und praktische Konsequenzen, Die neueren Sprachen', *Die neueren Sprachen*, 86, pp. 162-185.
- KÖPPE, R. and J. MEISEL, 1995, 'Code-switching in bilingual first language acquisition', in MILROY, L. & P. MUYSKEN (eds.) *One speaker, two languages: cross-disciplinary perspectives on code-switching*, pp. 276-301. Cambridge: Cambridge University Press.
- KRINGS, H. P., 1986, 'Was in den Köpfen von Übersetzern vorgeht. Eine empirische Untersuchung zur Struktur des Übersetzungsprozesses an fortgeschrittenen Französischlernern', *Tübinger Beiträge zur Linguistik*, 291. Tübingen: Narr.
- KRINGS, H. P., 1987, 'The use of introspective data in translation', in FAERCH, C. & G. KASPER (ed.) *Introspection in second-language research*, pp. 159-176. Clevedon: Multilingual Matters.
- KROLL, J. F. and A. SHOLL, 1992, 'Lexical and conceptual memory in fluent and non-fluent bilinguals', in HARRIS, R. (ed.) *Cognitive processing in bilinguals*, pp. 191-204. Amsterdam: Elsevier.
- KROLL, J. F. and E. STEWART, 1994, 'Category interference in translation and picture naming: evidence for asymmetric connections between bilingual memory representations', *Journal of memory and language*, 33, pp. 149-174.
- KROLL, J. F., E. MICHAEL and A. SANKARANARAYANAN, 1998, 'A model of bilingual representation and its implications for second language acquisition', in HEALY, A. F. & L. E. BOURNE (eds.) *Foreign language learning: psycholinguistic experiments on training and retention*. Mahwah, NJ: Lawrence Erlbaum Publishers, pp. 365-395.

- LANZA, E., 1988, 'Language strategies in the home: linguistic input and infant bilingualism', in HOLMEN, A., E. HANSEN, J. GIMBEL & J. N. JORGENSEN (eds.) *Bilingualism and the individual*, pp. 69-84. Clevedon: Multilingual Matters.
- LANZA, E., 1992, 'Can bilingual two-year-olds code-switch?', *Journal of child language*, 19, pp. 633-658.
- LANZA, E., 1997, *Language mixing in infant bilingualism: a sociolinguistic perspective*. Oxford: Oxford University Press.
- LEOPOLD, W. F., [1939] 1949, *Speech development of a bilingual child. A linguist's record*. Evanston, IL: Northwestern University Press.
- LINDHOLM, K. J. and A. M. PADILLA, 1978a, 'Language mixing in bilingual children', *Journal of child language*, 5, pp. 327-335.
- LINDHOLM, K. J. and A. M. PADILLA, 1978b, 'Child bilingualism: report on language mixing, switching and translations', *Linguistics*, 211, pp. 23-44.
- LÖRSCHER, W., 1988, 'On the construct of a rudimentary ability of mediate', Typescript.
- LÖRSCHER, W., 1992, 'Process-oriented research into translation and implications for translation teaching', *Interface*, 6(2), pp. 105-117.
- LOZES-LAWANI, C., 1994, *La traduction naturelle chez les enfants fon de la République de Benin*. Doctoral dissertation, University of Ottawa.
- MACIZO, P. and M. T. BAJO, 2005, 'Reading of repetition and reading for translation: Do they involve the same process?', *Cognition*, 99, pp. 1-34.
- MACWHINNEY, B., 2000, *The CHILDES project: tools for analyzing talk*. Mahwah, NJ: Lawrence Erlbaum Associates.
- MALAKOFF, M. and K. HAKUTA, 1991, 'Translation skills and metalinguistic awareness in bilinguals', in BIALYSTOK, E. (ed.) *Language processing in bilingual children*, pp. 141-166. Cambridge: Cambridge University Press.
- MALAKOFF, M. E., 1991, *Natural translation ability in French-English bilingual school-age children: a study of source language errors in naive child-translators*. Doctoral dissertation, University of Yale.
- MALAKOFF, M. E., 1992, 'Translation ability: a natural bilingual and metalinguistic skill', in HARRIS, R. J. (ed.) *Cognitive processing in bilinguals*, pp. 515-529. Amsterdam: North-Holland.
- MEISEL, J., 2007, 'The weaker language in early child bilingualism: Acquiring a first language as a second language', *Applied psycholinguistics*, 28, pp. 495-514.

- MEISEL, J. M., 1989, 'Early differentiation of languages in bilingual children', in HYLSTENSTAM, K. & L. K. OBLER (eds.) *Bilingualism across the lifespan: aspects of acquisition, maturity and loss*, pp. 13-40. Cambridge, MA: C. U. P.
- MEISEL, J. M., 2001, 'The simultaneous acquisition of two first languages. Early differentiation and subsequent development of grammars', in CENOS, J. & F. GENESEE (eds.) *Trends in bilingual acquisition*, pp. 11-41. Amsterdam: John Benjamins.
- MOSER-MERCER, B., 1994, 'Training and research: The foundation for conference interpretation', *The ATA chronicle*, 23, pp. 6-24.
- MÜLLER, F., 1989, 'Translation in bilingual conversation: pragmatic aspects of translatory interaction', *Journal of pragmatics*, 13, pp. 713-739.
- NEUBERT, A. and G. M. SHREVE, 1992, *Translation as text*. Kent, OH: The Kent State University Press.
- NEWMARK, P., 1988, *Approaches to translation*. London: Prentice Hall.
- NICOLADIS, E., 2001, 'Finding first words in the input. Evidence from a bilingual child', in CENOS, J. & F. GENESEE (eds.) *Trends in bilingual acquisition*, pp. 131-147. Amsterdam: John Benjamins.
- NICOLADIS, E. and F. GENESEE, 1996, 'A longitudinal study of pragmatic differentiation in young bilingual children', *Language learning*, 46(3), pp. 439-464.
- NICOLADIS, E. and G. SECCO, 1998, 'The role of translation equivalents in a bilingual family's code-mixing', in GREENHILL, A., M. HUGHES, H. LITTLEFIELD & H. WALSH (eds.) *Proceedings of the Boston University conference on language development*, 22, pp. 576-585. Somerville, MA: Cascadilla Press.
- NIDA, E. A., 1964, *Toward a science of translating*. Leiden: E.J. Brill.
- NIDA, E. A., 1976, 'A framework for the analysis and evaluation of theories of translation', in BRISLIN, R. W. (ed.) *Translation. Applications and research*, pp. 47-91. New York: Gardner Press.
- OLMEDO, I. M., 2003, 'Language mediation among emergent bilingual children', *Linguistics and education*, 14(2), pp. 143-162.
- ORELLANA, M. F., 2009, *Translating childhoods. Immigrant youth, language, and culture*. New Jersey: Rutgers University Press.
- ORELLANA, M. F., J. REYNOLDS, L. CORNER and M. MEZA, 2003a, 'In other words: translating or 'para-phrasing' as a family literacy practice in immigrant households', *Reading research quarterly*, 38(1), pp. 12-34. <<http://www.gseis.ucla.edu/faculty/orellana/samples/IOW61003.pdf>> (February 2011).

- ORELLANA, M. F., L. DORNER, and L. PULIDO, 2003b, 'Accessing assets: immigrant youth as family interpreters', *Social problems*, 50(5), pp. 505-524.
- OROZCO, M., 2002, 'Revisión de investigaciones empíricas en traducción escrita', *Trans*, 6, pp. 63-85.
- PACTE, 2005, 'Investigating translation competence: Conceptual and methodological issues', *Meta*, 50(2), pp. 609-619.
- PADILLA, P., M. T. BAJO, J. J. CAÑAS and F. PADILLA, 1995, 'Cognitive processes in simultaneous interpretation', in TOMMOLA, J. (ed.) *Topics in interpreting research*, pp. 61-71. Amsterdam: John Benjamins.
- PARADIS, J. and F. GENESEE, 1996, 'Syntactic acquisition in bilingual children: autonomous or interdependent?' *Studies in second language acquisition*, 18, pp. 1-25.
- PARADIS, J., E. NICOLADIS and F. GENESEE, 2000, 'Early emergence of structural constraints on code mixing: evidence from French-English bilingual children', *Bilingualism: language and cognition*, 3, pp. 245-261.
- PAVLENKO, A., 2000, 'New approaches to concepts in bilingual memory', *Bilingualism: language and cognition* 3(1), pp. 1-4.
- PEARSON, B. Z., 1998, 'Assessing lexical development in bilingual babies and toddlers', *International journal of bilingualism*, 2(3), pp. 347-372.
- PEARSON, B. Z., S. FERNANDEZ and D. K. OLLER, 1995, 'Cross-language synonyms in the lexicons of bilingual infants: one language or two?', *Journal of child language*, 22, pp. 345-368.
- PÖCHHACKER, F., 1995, 'Writings and research on interpreting: a bibliographic analysis', *The interpreters' newsletter*, 6, pp. 17-31.
- POTTER, M. C., K. SO, V. ECKARDT and L. FELDMAN, 1984, 'Lexical and conceptual representation in beginning and proficient bilinguals', *Journal of verbal learning and verbal behavior*, 23, pp. 23-38.
- QUAY, S., 1995, 'The bilingual lexicon: implications for studies of language choice', *Journal of child language*, 22, pp. 369-387.
- RABADÁN ÁLVAREZ, R., 1991, *Equivalencia y traducción. Problemática de la equivalencia transléctica inglés-español*. León: University of León.
- REDLINGER, W. and T. PARK, 1980, 'Language mixing in young bilinguals', *Journal of child language*, 7, pp. 337-352.
- ROMAINE, S., 1989, *Bilingualism*. New York: Basil Blackwell.
- RONJAT, J., 1913, *Le développement du langage observe chez un enfant bilingue*, Paris: Librairie Ancienne H. Champion.
- SAUNDERS, G., 1988, *Bilingual children: from birth to teens*. Clevedon: Multilingual Matters.
- SAYOLS LARA, J., 2002, *Adquisicio de la competencia traductora del xines. El proces d'aprenentatge*. Doctoral dissertation, Universitat Autònoma de Barcelona.
- SÉGUINOT, C., 1991, 'A study of student translation strategies', in TIRKKONEN-CONDIT, S. (ed.) *Empirical research in translation and intercultural studies*, pp. 79-88. Tübingen: Narr.
- SELESKOVITCH, D., 1976, 'Interpretation, a psychological approach to translating', in BRISLIN, R. W. (ed.) *Translation. Applications and research*, pp. 92-116. New York: Gardner Press.
- SHANNON, S., 1990a, 'Spanish for Spanish speakers: a translation skills curriculum', in PADILLA, A. M., H. H. FAIRCHILD & C. M. VALADEZ (eds.) *Foreign language education. Issues and strategies*, pp. 223-237. Newbury Park: Sage.
- SHANNON, S., 1990b, 'English in el barrio: the quality of contact', *Hispanic journal of behavioral sciences*, 12(3), pp. 256-276.
- SHERWOOD, B., 2000, *Features of NT in a language testing environment*. Doctoral dissertation, University of Ottawa.
- SHOLL, A., A. SANKARANARAYANAN and J. F. KROLL, 1995, 'Transfer between picture naming and translation: a test of asymmetries in bilingual memory', *Psychological science*, 6, pp. 45-49.
- SHREVE, G. M., 1997, 'Cognition and evolution of translation competence', in DANKS, J. H., G. M. SHREVE, S. B. FOUNTAIN & M. K. MACBEATH (eds.) *Cognitive processes in translation and interpreting*, pp. 120-136. Thousand Oaks: Sage.
- SRIVASTAVA, R. N. and R. S. GUPTA, 1989, 'Natural translation and translation theory', *International journal of translation*, 1(1), pp. 17-24.
- STEINER, G., 1975, *After Babel. Aspects of language and translation*. Oxford: Oxford University Press.
- SWAIN, M. K., 1972, *Bilingualism as a first language*. Doctoral dissertation, University of California, Irvine.
- SWAIN, M. K., 1973, 'Bilingual language acquisition and linguistic interdependence', Communication presented at *Bilingualism and its implications for Western Canada*. University of Alberta.
- SWAIN, M. K. and M. B. WESCHE, 1975, 'Linguistic interaction: case study of a bilingual child', *Language sciences*, 37, pp. 17-22.
- SWAIN, M. K., G. DUMAS and N. NAIMAN, 1974, 'Alternatives to spontaneous speech: elicited translation and imitation as indicators of second language competence', *Working papers in bilingualism*, 3, pp. 68-79.
- TAESCHNER, T., 1983, *The sun is feminine: A study on language acquisition in bilingual children*. Berlin: Springer Verlag.

- TIRKKONEN-CONDIT, S., 1990, 'Professional vs. non-professional translation: a think-aloud protocol study', in HALLIDAY, M. A. K, J. GIBBONS & H. NICHOLAS (eds.) *Learning, keeping and using language*, pp. 381-394. Amsterdam: John Benjamins.
- TORIBIO, A. J. and B. L. BROWN, 1995, 'Language contact and differentiation in child bilingualism: a syntactic analysis', in MACLAUGHLIN, D. & S. McEWEN (eds.) *Proceedings of the Boston University conference on language development*, 19, pp. 629-642. Somerville, MA: Cascadilla Press.
- TOURY, G., 1984, 'The notion of native translation and the translation teaching', in WILSS, W. & G. THOME (eds.) *Die Theorie des Übersetzens und ihr Aufschlußwert für die Übersetzungs- und Dolmetschdidaktik*, pp. 186-195. Tübingen: Narr.
- TOURY, G., 1986, 'Natural translation and the making of a native translator', *Textcontext*, 1(1), pp. 11-29.
- TOURY, G., 1995, *Description translation studies and beyond*. Amsterdam and Philadelphia: John Benjamins.
- TSE, L., 1996, 'Language brokering in linguistic minority communities: the case of Chinese – and Vietnamese – American students', *The bilingual research journal*, 20(3-4), pp. 485-498.
- TYMOCZKO, M., 2007, *Enlarging translation, empowering translators*. Manchester: St. Jerome Publishing.
- VALDÉS, G., 2003, *Expanding the definition of giftedness: the case of young interpreters from immigrant communities*. London: Lawrence Earlbaum.
- VALERO-GARCÉS, C. and D. SALES-SALVADOR, 2007, 'The production of translated texts for migrant minority communities. Some characteristics of an incipient market', *The journal of specialised translation*, 7. <http://www.jostrans.org/issue07/art_valero_sales.php> (February 2011).
- VIHMAN, M., 1985, 'Language differentiation by the bilingual infant', *Journal of child language*, 12(2), pp. 297-324.
- VOLTERRA, V. and T. TAESCHNER, 1978, 'The acquisition and development of language by bilingual children', *Journal of child language*, 5, pp. 311-326.
- VON RAFFLER-ENGEL, W., 1970, 'The concept of sets in a bilingual child', *Actes du X congrès international des linguistes*. Rumania: Editions de l'Académie de la République Socialiste de Roumanie.
- WALICHOWSKI, M., 2001, 'Language brokering: laying the foundation for success and bilingualism', *Research in bilingual education. Symposium conducted at the annual educational research exchange*. College Station, Texas.

- WANDENSJÖ, C., 1998, *Interpreting as an interaction*. London: Longman.
- WAPOLE, C., 2000, 'The bilingual child: one system or two?', in CLARK E. V. (ed.) *The proceedings of the thirtieth annual child language research forum*, pp. 187-194. Stanford, California: Center for the study of language and information.
- WEI, L. (ed.), 2000, *The bilingualism reader*. New York: Routledge.