

4-30-2014

## Language development of bilingual children; The acquisition of tense and aspect in an Italian-Indonesian child: A case study

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### Recommended Citation

Soriente, Antonia (2014) "Language development of bilingual children; The acquisition of tense and aspect in an Italian-Indonesian child: A case study," *Wacana, Journal of the Humanities of Indonesia*: Vol. 15: No. 1, Article 8.

DOI: [10.17510/wjhi.v15i1.108](https://doi.org/10.17510/wjhi.v15i1.108)

Available at: <https://scholarhub.ui.ac.id/wacana/vol15/iss1/8>

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# Language development of bilingual children

## A case study in the acquisition of tense and aspect in an Italian-Indonesian child

ANTONIA SORIENTE

### ABSTRACT

This paper<sup>1</sup> describes the development of temporal expressions in a bilingual child acquiring two typologically distinct languages: Italian and Indonesian.<sup>2</sup> These languages differ from one another in the way tense and aspect are encoded and it is interesting to observe what kind of cross-linguistic influence one language system has on the other. Italian verbs are heavily inflected for person, number as well as for tense, aspect and mood, whereas, in Indonesian, the encoding of tense and aspect is lexical rather than morphological; moreover encoding is optional when the context is sufficiently clear. This means that tense and aspect in Indonesian is often marked pragmatically rather than grammatically. This paper considers the interference effects that result from simultaneously acquiring these two typologically distinct systems.

### KEY WORDS

Child bilingualism, Italian, Indonesian, tense, aspect, cross-linguistic structures, interference.

<sup>1</sup> I would like to thank Hein Steinhauer for his helpful comments on an earlier version of this paper. All errors and inaccuracies remain of course my own.

<sup>2</sup> Indonesian referred to in this paper is the colloquial variety mainly spoken in Jakarta also defined Jakarta Indonesian (JI), as opposed to Standard Indonesian (SI). Throughout the text both the definition of Jakarta Indonesian and Indonesian are used to refer to the same linguistic entity. Many of the features discussed in the paper are shared by Standard Indonesian. As far as Italian is concerned, the language referred to here is the standard version together with the regional variant spoken in the Southern area of Campania. Occasionally instances of Neapolitan dialect are used. Unless particularly necessary all the utterances are referred to as Italian.

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## 1 INTRODUCTION

This paper presents a case study in bilingual language development, a field that has attracted much interest over the last thirty years from both scholarly and practical points of view in a world in which people are increasingly mobile.

The attention towards bilingualism and young bilingualism in particular is a direct consequence of the awareness that bilingualism and multilingualism is the norm rather than an exception, in the world in general and in countries like Indonesia in particular, where many minority languages co-exist with the national language. As Bhatia and Ritchie (2004: 1) put it, "bilingualism-more generally, multilingualism, is a major fact of life in the world today. To begin with, the world's estimated 5,000 languages are spoken in the world, so that communication among the citizens of many of the world's countries clearly requires extensive bi- (if not multi-)lingualism. In fact David Crystal (1997) estimates that two-thirds of the world's children grow up in a bilingual environment. One must conclude that, far from being exceptional, as many lay people believe, bilingualism/multilingualism-which, of course, goes hand in hand with multiculturalism in many cases-is currently the rule throughout the world and will become increasingly so in the future."

Over the years there have been campaigns pro or contra child bilingualism. Until quite recently it was believed that monolingualism represents the natural or normal case of language development. Therefore a deviation from this norm was deemed to imply risks for the normal development of a child, who might become confused linguistically, cognitively, and emotionally. Recent studies based on empirical findings and also on experimental research have demonstrated that this is not the case (see the vast literature on the subject by Miesel 2004; De Houwer 1995; Paradis 2004; Bialystok 2001; among others). Therefore, research on linguistic development in bilingual and multilingual settings is indeed of immediate practical relevance.

The data presented in this paper are taken from the naturalistic speech of Guglielmo, the author's first child. Guglielmo grew up in Jakarta in a household where both Indonesian and Italian were spoken. While Guglielmo's mother spoke mainly Italian in his presence, in almost all other contexts, Indonesian was used, being the language of the father and of the majority of the people around him, including caretakers and relatives. This means that the child grew up with two typologically distinct and genealogically unrelated languages that are markedly different in terms of structure. The study focuses exclusively on the emergence of tense and aspect categories and in particular of the Italian verbal morphology until Guglielmo reached the age of six. This is a case of an as yet unstudied language pair displaying unbalanced bilingualism with language mixing, a common situation for children of mixed marriages.

Before presenting the data on the acquisition of verbal morphology in Italian, of the temporal markers in Jakarta Indonesian, and Guglielmo's linguistic behaviour, an overview of previous studies on developmental bilingualism is outlined.

## 2 AN OVERVIEW OF DEVELOPMENTAL BILINGUALISM

Much of the research on bilingual acquisition in children focuses on the extent to which bilingual children distinguish between their two target languages and tries to answer the question: Do bilingual children develop one linguistic system or two separate systems? The Unitary System theory, proposed by Volterra and Taeschner (1978), claims that bilingual children go through a stage in which they are unable to distinguish between their target languages. In contrast, some recent studies support the Separate Development Hypothesis (SDH), which claims that bilingual children are able to differentiate between target languages early in the acquisition process (see De Houwer 1995; Lanza 1992; Meisel 1990, 2000).

The debate between these two viewpoints is clouded by over the question how to deal with the fact that a bilingual's language involves a great deal of variability and variation and that there are multiple factors related to bilingual speech. As Grosjean points out, "studying bilinguals is a very challenging enterprise. There are many variables that differentiate a monolingual from a bilingual other than just speaking two languages: input, context language, code switching, lexical borrowing and increased metalinguistic awareness" (1998: 34). Simply put, appropriate methodologies have to be used when studying cross-linguistic structures. Looking beyond the issue of whether two languages are operating cognitively as separate systems, linguists are now more interested in simply observing the degree of interaction between the two languages.

Mixed utterances produced by early bilinguals are particularly useful for studying the phenomenon of interaction of the languages the children are exposed to. For example, Müller (1998), Döpke (1998, 2001a), Yip and Matthews (2000), and Kupisch (2007) discuss interaction in developing grammars of bilingual children. They all stress the fact that the target languages interact in speech performance, and one target language will often show the grammatical features of the other target language. However, most authors working on this issue maintain that the main reason for transfer of linguistic structures is the dominance of one of the target languages. Paradis and Genesee (1996: 3) propose that syntactic dominance and overlap is especially evident when a child advances more rapidly in one target language than in the other. If it is correct that interference is caused by the relative dominance of one of the bilingual child's target languages, then interference should be unidirectional, from the stronger language to the weaker language. Indeed, most studies report on the influence of a stronger target language on the syntactic structures of a weaker language; however, some researchers have claimed that interference can also be affected by the grammatical properties of the target languages and not only by dominance. Yip and Matthews (2000) demonstrate that in cases where two typologically divergent languages are acquired, such as Cantonese and English, Cantonese prevails over English in the domain of WH-movement and relative clauses. In a different case, Müller (1998) reports that ambiguity of input between the structures of German verb-

object word order in main clauses and object-verb word order in subordinate clauses favours the use of English syntax. She argues that this is the case because the fixed word order in English does not create any ambiguity; therefore it is the most effective solution to constructing sentences regardless of which language is dominant. Taking a different approach, Grosjean (1982) and Gawliztek-Maiwald and Tracy (1996) claim that lexical and syntactic borrowing are strategies which allow children to express something they are not able to express otherwise, because it might be easier to learn it in one language than in another.

Other studies point to additional factors that could play a role in interference. Döpke (2001b) analyses “atypical” structures produced by young bilinguals in order to explain why mixing occurs, despite the fact that children already presumably differentiate the two languages they are acquiring. Mixed linguistic structures are a window in the bilingual mind and allow researchers to see what happens in the mind of a child growing up with two languages, when structures of one language move to the other language. Another possibility is that the structural properties of the target languages play an important role in transfer (see Lanza 2001). On a different line, Sinka (2001) examines data from two bilingual English-Latvian girls, paying specific attention to terms of language differentiation. This work concludes that the substantial structural and morphological differences between English and Latvian enable the child to differentiate between the two language systems from an early stage. In other words, with fewer parallel structures in their target languages, it is easier for bilingual children to distinguish between their target languages. Hulk and Müller (2000), on the other hand, argue that influence is at work independently of dominance when two languages display syntactic overlap. Kupisch (2007), pointing to evidence from German-Italian bilinguals, argues that dominance and internal structures determine the transfer from a language to another. Her study focuses on the acquisition of determiners by bilinguals. She argues that when two languages are in contact, internal factors (the respective grammatical properties of the target languages) can help or hinder the acquisition of a certain feature, whereas external factors (language dominance) can determine the degree to which interference occurs.

The following study attempts to observe several of these issues as they relate to the case study of Italian and Indonesian.

### 3 THE CASE STUDY OF A BILINGUAL INDONESIAN-ITALIAN CHILD AND THE PROBLEM OF ACQUISITION OF TENSE AND ASPECT MARKERS

This case study of an Indonesian-Italian bilingual child examines the evolution of the language of the child where Indonesian is clearly dominant and focuses itself on the mixed forms produced from very early on. One of the main topics of this research has been the study related to the issues of language choice, language differentiation and language mixing in Guglielmo.

Guglielmo was born in Jakarta to an Italian mother and an Indonesian father. From birth, he was exposed to Italian and Indonesian in its standard

and colloquial variants. Guglielmo's parents adhered to a one-parent-one language strategy for both him and his sister, Beatrice (who is two years younger than Guglielmo). Guglielmo and Beatrice's exposure to Indonesian and Italian was by no means balanced. Their mother, the main source of their Italian input, worked full time, spent only limited time at home with her children. Aside from their mother, Guglielmo and Beatrice were regularly exposed to Italian through cartoons, stories, and occasionally socialization with few Italian friends. Moreover, the children resided for two months each year at the mother's family home in Southern Italy. During the remaining months of the year, most of the children's daily social interaction took place in Indonesian, as they interacted with their Indonesian caretaker and attended a local kindergarten. The children's interaction with one another largely depended on whether they were in a primarily Italian-speaking or Jakarta Indonesian-speaking context.

At the time of the recordings, Guglielmo was fluent in JI.<sup>3</sup> He used it in nearly all contexts with the exception of interactions with his mother. From an early age he appeared to comprehend Italian, though his production was very limited until the age of three. As expected, his Italian showed grammatical and lexical mixing with Indonesian. By age 5, Guglielmo was able to speak Italian with relative fluency, but with noticeable imperfections. In the specific case of acquisition of temporal markers Guglielmo was noticed to use structures where a mixing of the two systems was occurring.

This research identified cross-linguistic structures and explored the problems that arose in the acquisition of verbal morphology. I studied the emergence of verbal morphology in Jakarta Indonesian and Italian in Guglielmo's speech and identified their main features in order to situate this case within the literature on bilingual language acquisition.

In an earlier study I showed that Indonesian was the child's dominant language until the age of eight (Soriente 2006) and that cross-linguistic structures were produced from early on (Soriente 2007a, b). The present paper focuses on utterances produced from age two till age five, that exhibit evidence of mixed verbal forms in the domain of temporal markers, especially those used in Italian speech contexts. The data spans over three broadly defined developmental stages: pre-production, early production and target production. The language choice, cross-linguistic structures and language differentiation in this bilingual context confirm the patterns that have been previously established in the extensive literature on bilingual acquisition. The findings presented in this paper are a contribution to the literature on language acquisition in a bilingual context: few studies have examined emergent bilingualism in which the target languages are so starkly different.

The central question addressed in this paper is the following: to what extent does interference occur in Guglielmo's speech in the domain of

<sup>3</sup> Since the age of 9,0 the child and his sister have moved to Italy. At the time of writing, at the age of 12 and 10 respectively, Indonesian is the weaker language as they have become dominant in Italian, the language they have formal education in.

tense and aspect markers? The initial and obvious answer is that significant interference is occurring because the dominant language, Jakarta Indonesian, exerts a transfer effect on the weaker language, Italian, in Guglielmo's earliest developmental stage.

The data presented in this paper indicate that Guglielmo does not fully master the Italian verbal system by age 4;0, even though at this age he exhibits the same mastery of Indonesian tense and aspect markers as his Indonesian peers. Guglielmo differs from monolingual Italian children in the same age group who have been showing to be able to produce morphologically adult-like forms from a much earlier age (Hyams 1986; Guasti 1993). Unlike monolingual speakers in his same age group, he frequently produces verbal forms in which tense, aspect, and number/person are incorrectly encoded.

#### 4 TYPOLOGICAL FEATURES OF JAKARTA INDONESIAN AND ITALIAN

Before discussing the transfer effects of the two languages the child is exposed to, it is worth noting a number of typological features of the two languages, Jakarta Indonesian and Italian. Typologically, Jakarta Indonesian (the colloquial variant as opposed to Standard Indonesian) is an SVO language, though it allows for a relatively flexible word order; it has prepositions, the noun precedes the unmarked genitive, the adjective and the determiners. Additionally, question words do not need to be fronted and relative clauses can only be accessed from the subject position of the hierarchy scale. There is little inflectional morphology and there are no grammatical categories for gender and number nor are there articles. According to Ewing (2005), in Jakarta Indonesian, there are only two open word classes, nouns and verbs. They can be monomorphemic or morphologically complex. The monomorphemic words can be easily shifted from one class to another. The tense markers, aspect and mood are not formally expressed other than through the use of a few aspect and modal markers that precede the verb.<sup>4</sup> The limited number of prefixes and suffixes are polyfunctional. Basic clauses consist of a subject and a predicate or only a predicate. In addition, the subject and other core arguments are generally unmarked, whereas oblique arguments are marked by prepositions. Verbal predicates can have an actor voice and an undergoer voice; with the latter the actor argument is optionally marked by a preposition. Non-verbal predicates can be a noun phrase, an adjective phrase or a prepositional phrase, which is preceded by a subject without copula or linker. The language allows for null subjects and objects in finite clauses (see Ewing 2005).

Italian is also an SVO language, has prepositions, nouns precede (and in some cases follow) adjectives but always follow demonstratives. It is a highly inflected language with a very rich verbal and nominal morphology and an agreement system based on number and gender involving the use of articles. The relative clauses are realized in all the positions though in low varieties of Italian only the subject and object can be relativized. Questions are formed by

<sup>4</sup> An exception is the verbal prefix *ter-* that can mark perfective aspect, but it will not be addressed in this paper.

moving the question word to sentence initial position, at least before the verb and by inversion. Lastly, the language allows for the use of the null subject (PROdrop) in finite clauses (see Renzi et al. 2001; Salvi and Vanelli 2004).

Despite the many superficial typological similarities, the most important structural difference between Italian and Jakarta Indonesian is the distinct syntactic pattern in which the Italian word order, except for specific pragmatic reasons, is fixed. In contrast, JI word order is relatively flexible. Thus to summarize the key differences between the two languages, Italian and JI are both SVO languages - but JI word order is much more flexible. Italian has obligatory determiners in the NP, while Indonesian does not. However, the most interesting difference between the languages is the range of strategies used to ensure accurate reference, the fact that Italian has a rich inflectional morphology involving agreement, cross-referencing, and complex verbal categories.

For the particular purpose of this study, only one area of the grammar is taken into consideration, that is the expression and evolution of the aspect and temporal markers in the two languages where this phenomenon is known to display different behaviour. In Italian, no verbal stem occurs uninflected and therefore bearing temporal and aspectual features, whereas in JI, verbal morphology occurs mostly through the use of a very limited set of affixes involving few morpho-phonological changes. In many cases verbs occur in their bare form without any tense or aspect marker and in most of the cases the aspect is lexically marked.

## 5 METHODOLOGY

The data presented below belong to a database comprising transcriptions of naturalistic speech of Guglielmo from the age of eight months till the age of six years. The source of evidence is constituted of video recordings, transcriptions of audio recordings, and from notes in the author's diary. In these weekly, hour-long recordings, he is shown playing with other children, with his sister and with his parents. Occasionally other individuals enter the recordings, such as visitors to the household, the family's Indonesian maid or, when the recording was collected in Italy, the children's Italian relatives. For the most part, either Italian or Indonesian was deliberately used with the intention of collecting significant amounts of data from both languages separately for the corpus. In some recordings both languages are used, especially when both of the children's parents were present.

The data in this study have only partially been coded and entered into a longitudinal database. This data were collected as part of a larger study undertaken at the Max Plank Institute for Evolutionary Anthropology (MPI) in Jakarta. The broader project involved the creation of a large corpus containing roughly nine hundred thousand utterances collected from eight monolingual JI children recorded over a four-year period.<sup>5</sup> Comparison of the bilingual data

<sup>5</sup> This material is now part of the East Asian corpora of CHILDES database (Child Language Data Exchange System) accessible in <http://childes.psy.cmu.edu/>



discussed in this paper with monolingual acquisition patterns in JI speakers allows us to reliably ascertain the ways in which bilingual acquisition of JI differs from monolingual acquisition of JI. Data drawn from monolingual Italian children available from the CHILDES database (MacWhinney and Snow 1985; MacWhinney 2000) provides a similar basis of comparison. These data are necessary to understand which of the grammatical structures produced by Guglielmo represent interference versus normal grammatical development within the given target language.

For the specific purpose of this study the corpora of speech used for this database cover the age span between 1;2 years till 4;11 years are fully glossed and annotated for certain grammatical features. In particular, verbal forms were analysed and coded according to tense and aspect for both JI and Italian and marked as grammatical or ungrammatical according to the target language. Typologically, this grammatical feature of the encoding of tense and aspect shows high divergence between the two languages. We know that, in order to demonstrate why and where cross-linguistic structures occur, it is important to identify areas where the structures of the two languages display different patterns, or where the child is prone to transfer from one language to the other. In this case the prediction was that the child would generalize the lack of tense marking in Italian and would tend to use express aspect mostly lexically. For this reason, all utterances containing an overt or covert tense or aspect marker in both languages were analysed and it was marked whether Italian verbal forms were correct as for number, person, tense and eventually aspect. On the other hand, the Indonesian utterances were marked on the presence or absence of the lexical temporal and aspectual markers, on whether there was any redundancy in their use and whether they were appropriately used. In mixed utterances it was examined whether the transfer was from the dominant to the less dominant one, as expected, or the other way around. In order to examine the problem of acquisition of temporal and aspectual markers an inventory of these markers in both languages was made and then the order of occurrence in monolingual children was established. Then their occurrences were observed in Guglielmo's Indonesian and Italian speech and how his data compared with monolingual Indonesian and Italian children.

On the basis of our observations finally, cross-linguistic influences in the domain of the markers in question, and the possible causes of this influence were formulated.

## 6 INDONESIAN TEMPORAL AND ASPECTUAL MARKERS

Indonesian, and also its colloquial variant Jakarta Indonesian, does not encode categories of tense via morphology, nor are tense and aspect markers obligatory. The temporal and aspectual properties of an utterance can be inferred by context, via knowledge shared by the speech participants, or through the use of adverbial modifiers. In other words, temporal and aspectual

properties are often expressed pragmatically rather than grammatically.

Indonesian encodes an aspectual opposition between perfectivity and imperfectivity through the lexemes *sudah* (PFCT) and its colloquial variant *udah* and *dah* and *sedang* (IMPFCT), or its colloquial counterpart *lagi* (IMPFCT).<sup>6</sup> the following two sentences taken from Sneddon (2006) *udah* indicates that an action has occurred or a state has been achieved:

- (1a) *Nyokap gue tuh udah tau*  
 mother 1SG that PFCT know  
 'My mother already knows.'

- (1b) *S(e)karang saya udah punya duit*  
 now 1SG PFCT have money  
 'Now I have money.'

*Lagi* encodes progressivity and can be associated with activity and stative verbs like in the example (2a) and (2b) taken from Sneddon (2006).

- (2a) *Dia juga kebetulan lagi makan di situ*  
 3SG also ke-an.true IMPFCT eat LOC there  
 'He happened to be eating there too.'

- (2b) *Waktu itu gua lagi nggak ada*  
 when that 1SG IMPFCT NEG present  
 'At that time I was not there.'

Other aspectual and modal features can be encoded morphologically for example via the use of prefix *ter-* (for resultative aspect) and occasionally the suffix *-i*.<sup>7</sup> Morphological reduplication also encodes aspectual properties such as iterativity. *Telah*, *pernah*, *sempat* are other lexical verbal markers that encode features of aspect (semelfactive) and modality. For various reasons related to restricted occurrence in the corpus and in general in Guglielmo's speech, and to limit the scope of this paper, only lexical aspectual and temporal markers are observed in this paper, therefore, except for few instances of *pernah* all the morphological devices just now mentioned, are not accounted for here.<sup>8</sup>

<sup>6</sup> In the database the occurrence of *lagi* is much more frequent.

<sup>7</sup> The suffix *-i* can indicate that the object is affected spatially ('all over'), which with telic verbs can only be realized when the action is repeated.

<sup>8</sup> *Pernah*, marking the semelfactive aspect was only recorded in a few instances whereas *telah* and *sempat* never occurred in the database. These markers are very seldom used in Jakarta Indonesian as they belong to the standard version of Indonesian. Being infrequent in the adult language, they are rarely used by children. For examples, see Sneddon (2006) and Sneddon et al. (2010). As far as the *ter-* prefix is concerned, the only example found in the database is the perfective stative verb *terbalik* 'upside-down' (of something that has overturned) used by Guglielmo since the age of 2;6. Given that it is the only occurrence of a perfective aspect with

## 6.1 ACQUISITION OF TEMPORAL MARKERS IN INDONESIAN

Table 1 displays the most common temporal markers and time adverbs and their order of acquisition (in years, months) in the CHILDES database for Jakarta Indonesian.

ASPECT/TENSE MARKER	INDICATING/MEANING	TIME OF ACQUISITION
<i>(s)udah</i>	perfectivity	1;8
<i>lagi/sedang</i>	imperfectivity	2;1
<i>akan</i>	future	2;9
<i>mau</i>	future/proximate	1;10
<i>masih</i>	'still'	2;3
<i>baru</i>	'just'	2;7
<i>pernah</i>	perf/semelfactive	2;7
<i>sekarang</i>	'now'	2;1
<i>tadi</i>	'earlier, a while ago'	2;1
<i>nanti/ntar</i>	'later, in a while'	2;3
<i>kemaren</i>	'yesterday'	2;3
<i>dulu</i>	'in the past'	3;2
<i>besok</i>	'tomorrow'	2;6

Table 1. Jakarta Indonesian aspectual and temporal markers and age of acquisition.

From the analysis of the Jakarta Indonesian database in CHILDES, the temporal marker observed earliest in the corpus is the perfective marker *(s)udah*, which appears at 1;8. It first appears in isolation and later within a predicate. In early speech, this marker primarily functions to mark completed and resultative actions, but also indicates states that started in the past and are relevant to the present.

At age 2;1 the marker *lagi* first appears. In the utterances where it observed it marks ongoing activities. At around the same stage, time adverbs also start to appear in the corpus: *sekarang* 'now' and *tadi* 'earlier' (for recent past), and slightly later (at 2;3) *nanti* 'later' and *kemaren* 'yesterday'. The concept of future starts to be expressed at 2;6 with the marker *akan* and the adverb *besok* 'tomorrow'. The use of these adverb is quite consistent; they are used only if necessary. Considering the fact that Indonesian is a language in which tense and aspect marking is not obligatory and very much depends on context, the possibility of mistakes is very low. In Indonesian, children often use temporal adverbs to indicate the most recent *tadi* 'earlier' and most distant time *dulu* 'in the past'.

The following Table 2 shows the number of occurrences of temporal

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a non lexical marker, and probably learnt as an adjective, I decided to restrict my observation only on lexical aspectual markers of perfectivity.

markers in the recordings of one of the children of the CHILDES database of Jakarta Indonesian, Riska and their frequency.

TEMPORAL MARKERS AND TIME ADVERBS	OCCURRENCE IN THE DATABASE
<i>(s)udah</i>	1783
<i>lagi</i>	700
<i>akan</i>	14
<i>tadi</i>	463
<i>sekarang</i>	197
<i>kemaren</i>	51
<i>nanti/ntar</i>	251
<i>dulu</i>	55
<i>besok</i>	40

Table 2. Distribution of temporal markers and time adverbs in a monolingual JI child.

Table 2 shows that in the 64000 utterances produced by Riska, *(s)udah* is by large the most frequently used, followed by *lagi* and then by time adverbs. The most frequent time adverb is *tadi* followed by *nanti* and finally *sekarang*. The other time adverbs like ‘yesterday’, ‘in the past’ and ‘tomorrow’ have a much smaller occurrence probably because children tend to talk about things much closer to the time of speaking.

7 ITALIAN TEMPORAL MARKERS

Italian verbs are always marked for person, number (singular and plural), modality (indicative, imperative, subjunctive), tense (present, past, future), and aspect (imperfect versus perfect). The full inflectional system includes as many as 21 simple and compound tenses and moods, 16 of which are commonly used.<sup>9</sup> There are also many verbs which exhibit morpho-(phono) logical irregularities. The compound forms consist of a participle and forms of the auxiliaries *essere* ‘be’ and *avere* ‘have’.

The verbal inflection relevant to acquisition involves the use of infinitive forms, imperative, present, present perfect, imperfect, present progressive and future. Notwithstanding that, Italian children have to master a very elaborate paradigm of endings involving three main classes of verbs (with infinitives ending in *-are*, *-ere*, *-ire*), six persons, two genders, three moods plus infinitive, gerund, and participles.

<sup>9</sup> The sixteen most common tenses and moods are: *presente*, *passato prossimo*, *imperfetto*, *trapassato prossimo*, *passato remoto*, *futuro semplice*, *congiuntivo presente*, *congiuntivo passato*, *condizionale presente*, *imperativo*, *infinito presente*, *infinito passato*, *participio presente*, *participio passato*, *gerundio presente*, *gerundio passato*. Many of the tenses of the subjunctive (*congiuntivo*) tend to be less used in the colloquial language and so the conditional.

The following is an example of the endings in non-compound Italian verbs: the three columns represent the endings of verbs whose infinitives end in *-are*, *-ere*, and *-ire* respectively.

## INDICATIVE

## PRESENT

I singular	<i>-o</i>	<i>-o</i>	<i>-o/-isco</i>
II	<i>-i</i>	<i>-i</i>	<i>-i/-isci</i>
III	<i>-a</i>	<i>-e</i>	<i>-e/-isce</i>
I plural	<i>-iamo</i>	<i>-iamo</i>	<i>-iamo</i>
II	<i>-ate</i>	<i>-ete</i>	<i>-ite</i>
III	<i>-ano</i>	<i>-ono</i>	<i>-ono/-iscono</i>

## IMPERFECT

I singular	<i>-avo</i>	<i>-evo</i>	<i>-ivo</i>
II	<i>-avi</i>	<i>-evi</i>	<i>-ivi</i>
III	<i>-ava</i>	<i>-eva</i>	<i>-iva</i>
I plural	<i>-avamo</i>	<i>-evamo</i>	<i>-ivamo</i>
II	<i>-avate</i>	<i>-evate</i>	<i>-ivate</i>
III	<i>-avano</i>	<i>-evano</i>	<i>-ivano</i>

## PAST ABSOLUTE

I singular	<i>-ai</i>	<i>-ei/-etti</i>	<i>-ii</i>
II	<i>-asti</i>	<i>-esti</i>	<i>-isti</i>
III	<i>-ò</i>	<i>-é/-ette</i>	<i>-ì</i>
I plural	<i>-ammo</i>	<i>-emmo</i>	<i>-immo</i>
II	<i>-aste</i>	<i>-este</i>	<i>-iste</i>
III	<i>-arono</i>	<i>-erono/-ettero</i>	<i>-irono</i>

## FUTURE

I singular	<i>-erò</i>	<i>-erò</i>	<i>-irò</i>
II	<i>-erai</i>	<i>-erai</i>	<i>-irai</i>

## FUTURE

III	<i>-erà</i>	<i>-erà</i>	<i>-irà</i>
I plural	<i>-eremo</i>	<i>-eremo</i>	<i>-iremo</i>
II	<i>-erete</i>	<i>-erete</i>	<i>-irete</i>
III	<i>-eranno</i>	<i>-eranno</i>	<i>-iranno</i>

## SUBJUNCTIVE

## PRESENT

I singular	<i>-i</i>	<i>-a</i>	<i>-a/-isca</i>
II	<i>-i</i>	<i>-a</i>	<i>-a/-isca</i>
III	<i>-i</i>	<i>-a</i>	<i>-a/-isca</i>
I plural	<i>-iamo</i>	<i>-iamo</i>	<i>-iamo</i>
II	<i>-iate</i>	<i>-iate</i>	<i>-iate</i>
III	<i>-ino</i>	<i>-ano</i>	<i>-ano/-iscano</i>

## IMPERFECT

I singular	<i>-assi</i>	<i>-essi</i>	<i>-issi</i>
II	<i>-assi</i>	<i>-essi</i>	<i>-issi</i>
III	<i>-asse</i>	<i>-esse</i>	<i>-isse</i>
I plural	<i>-assimo</i>	<i>-essimo</i>	<i>-issimo</i>
II	<i>-aste</i>	<i>-este</i>	<i>-iste</i>
III	<i>-assero</i>	<i>-essero</i>	<i>-issero</i>

## CONDITIONAL

## PRESENT

I singular	<i>-erei</i>	<i>-erei</i>	<i>-irei</i>
II	<i>-eresti</i>	<i>-eresti</i>	<i>-iresti</i>
III	<i>-erebbe</i>	<i>-erebbe</i>	<i>-irebbe</i>
I plural	<i>-eremmo</i>	<i>-eremmo</i>	<i>-iremmo</i>
II	<i>-ereste</i>	<i>-ereste</i>	<i>-ireste</i>
III	<i>-erebbero</i>	<i>-erebbero</i>	<i>-irebbero</i>

## IMPERATIVE

## PRESENT

I singular	–	–	–
II	– <i>a</i>	– <i>i</i>	– <i>i/–isci</i>
III	– <i>i</i>	– <i>a</i>	– <i>a/–isca</i>
I plural	– <i>iamo</i>	– <i>iamo</i>	– <i>iamo</i>
II	– <i>ate</i>	– <i>ete</i>	– <i>ite</i>
III	– <i>ino</i>	– <i>ano</i>	– <i>ano/–iscano</i>

## PARTICIPLE

## PRESENT

Singular	– <i>ante</i>	– <i>ente</i>	– <i>ente</i>
Plural	– <i>anti</i>	– <i>enti</i>	– <i>enti</i>

## PAST

Singular	– <i>ato, –ata</i>	– <i>uto, –uta</i>	– <i>ito, –ita</i>
Plural	– <i>ati, –ate</i>	– <i>uti, –ute</i>	– <i>iti, –ite</i>

## GERUND

## PRESENT

– <i>ando</i>	– <i>endo</i>	– <i>endo</i>
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Children most frequently use imperative forms and the present tense together with a copula or past participle, imperfect, and gerund associated with the auxiliary *stare* 'stay'. Very often the use of a tense and its aspectual properties also depends on the semantics of the verb with the consequence that use of tenses and its mastery can involve a long process. For example in the past tense (event as occurring at a time prior to the speech act) each choice of tense conveys a particular aspectual meaning in accordance with the type of verb used in the sentence. Stative verbs like 'love', 'know', 'want' appear in present or imperfect forms. Non-stative verbs like 'open', 'go', 'break' are expressed by the present perfect.

In general the tenses acquired earlier each have particular tense and aspectual properties, that have to be mastered in full before they can be used correctly. The acquisition order is based on universals of cognitive development. Therefore they are acquired when the child has reached the stage of conceptual development in which the notion has become relevant.<sup>10</sup>

<sup>10</sup> For a full description of Italian verbal inflection see L. Renzi, G. Salvi, and A. Cardinaletti (2001) and Salvi and Vanelli (2004).

## 7.1 ITALIAN TEMPORAL MARKERS AND ACQUISITION

The following table extrapolated from CHILDES presents the verbal tenses and time adverbs that are mostly used by young Italian children when the notions of tense and aspect start to emerge. Their time of acquisition is given in terms of years and months.

TENSES AND TIME ADVERBS	ASPECTUAL FEATURES/ MEANING	TIME OF ACQUISITION
past participle (-to, -ta, -ti, -te)	perfective	1;7
progressive (-ndo)	imperfective	2;2
present perfect	past/perfective	2;0
imperfect	past/imperfective	2;6
future	future	2;10
<i>ora/adesso</i>	'now'	1;9
<i>prima</i>	'earlier'	3;4
<i>dopo</i>	'later'	1;10
<i>ieri</i>	'yesterday'	2;6
<i>domani</i>	'tomorrow'	2;6

Table 3. Italian temporal markers and acquisition of monolingual children.

Hyams (1986) and Guasti (1993) claim that for monolingual Italian speakers verbal morphology is acquired at a relatively early stage. This claim has been confirmed by Antelmi (1997). Children go through an initial stage of linguistic development termed 'pre-inflectional,' in which verbs are produced in their bare form or in an unanalyzed form. Following this stage, the child first begins to produce participial forms, and subsequently present perfect forms (at age 2;3, according to Antelmi 1997). At this stage, children gradually begin to employ adverbs.

Based on Italian data from the CHILDES database, past participles appear first at age 1;7. These participles function as adjectives, marking resultative events like 'broken', 'dead', etcetera. On the basis of these observations, it is claimed that aspect is acquired before tense (Bronckart and Sinclair 1973; Antinucci Miller 1976). According to this Defective Tense Hypothesis it is suggested that young children are not able to process the deictic time relations involved in tense marking. Yet they are able to access aspectual oppositions.

The first well-formed verbs are present perfect forms, appearing with an auxiliary. These forms are attested at age 2;0. A few months later, at age 2;2, the present progressive is observed for the first time. Imperfective verbs emerge at age of 2;6. Adverbs are seldom employed to express aspect at this point, as can be seen in the following table which shows the most frequent adverbs of time used by monolingual Italian children.



The following table extracted from the CHILDES database for monolingual Italian children presents the distribution of time adverbs in Italian and the time of their first occurrence. We can see that they are much less used than the Indonesian adverbs if we compare them with those in Table 2.

TIME ADVERBS	RELATIVE DISTRIBUTION	TIME OF ACQUISITION
<i>ora</i>	333	1;9
<i>adesso</i>	41	1;9
<i>ieri</i>	4	2;6
<i>domani</i>	5	2;6
<i>prima</i>	1	2;6
<i>dopo</i>	6	1;8

Table 4. Distribution of Italian adverbs and their acquisition.

As the CHILDES data show, from 816.888 Italian monolingual utterances the first adverbs to be used are *ora* 'now' and its synonym *adesso*, but their occurrence and those of other time adverbs is very low as compared to the acquisition of similar time adverbs in one single Indonesian child (Riska) in Table 2.

## 8 DEVELOPMENT OF TEMPORAL MARKERS IN GUGLIELMO'S SPEECH

Before the emergence of temporal markers, Guglielmo's utterances are tenseless and aspect-less, they are just predications. When the temporal markers first appear in his speech, their order of development seems to follow the order observed in monolingual acquisition of Italian and JI, as well as other languages. However, these markers are learned later when compared with monolingual speaking children. In Italian, the first to emerge are past participles, because these can be interpreted as adjectives and display the result of an action (*rotto* 'broken', *caduto* 'fallen'), in Indonesian, the first to appear are resultative verbs such as *rusak* 'broken', *mati* 'dead', *jatoh* 'fallen' and the perfective aspect marker (s)*udah*.

JI	TIME OF ACQUISITION	ITALIAN	TIME OF ACQUISITION
(s) <i>udah/dah</i>	1;10	<i>past part.</i>	2;2
<i>lagi/sedang</i> <sup>11</sup>	2;7	<i>pres. progr.</i>	3;4
<i>akan</i> <sup>12</sup>	3;3	<i>pres. perfect</i>	3;4
<i>mau</i>	2;7	<i>imperfect</i>	4;11

<sup>11</sup> *Lagi* and *sedang* were acquired more or less at the same time but *lagi* has a much more frequent occurrence.

<sup>12</sup> The colloquial version of *akan* is *bakal*, but it is rarely employed.

JI	TIME OF ACQUISITION	ITALIAN	TIME OF ACQUISITION
<i>masih</i>	2;3		
<i>baru</i>	4;2		
<i>pernah</i>	2;7		
<i>sekarang</i>	2;6	<i>ora</i>	3;2
<i>tadi</i>	2;6	<i>prima</i>	3;8
<i>nanti</i>	2;6	<i>dopo</i>	4;2
<i>kapan</i>	4;0		
<i>kemaren</i>	2;6	<i>ieri</i>	3;4
<i>besok</i>	4;11	<i>domani</i>	
<i>waktu</i>	2;10	<i>quando</i>	4;4

Table 5. Guglielmo’s acquisition of temporal markers.

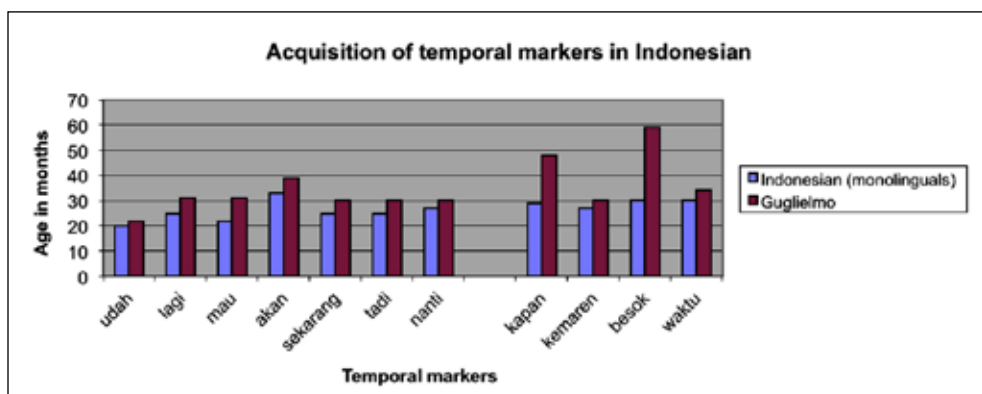
The data in Table 5 can be seen on the following graphs, in which Guglielmo’s data are compared to the Indonesian monolinguals in Graph 1 and to Italian monolinguals in Graph 2.<sup>13</sup>

Observing the pattern we can say that Guglielmo follows the same path of Indonesian monolingual children with a relative difference in the use of time adverbs for *kapan* (when) and *besok* (tomorrow). The data in Graph 1 show that Guglielmo’s acquisition is overall only slightly delayed, whereas the delay displayed in Graph 2 is much greater. Graph 2 shows that the order of acquisition of the markers is the same in the two languages but the time of acquisition of Italian markers is much later in comparison to the Indonesian ones, except for the adverb *prima* ‘before’, where the acquisition is nearly the same as with Italian monolinguals. It is interesting to notice that if the past participle is acquired more or less at the same time, the imperfect is acquired much later. From the coded data no future marker was recorded till the age of four, but this might have depended on the simple fact that recordings were made in a naturalistic way and it is possible that in those particular recordings no future was required.<sup>14</sup>

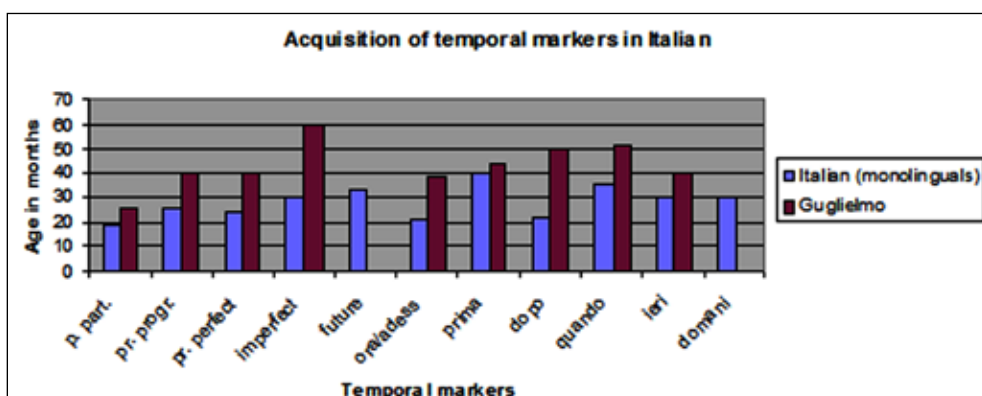
<sup>13</sup> To allow an easier display on the Graphs 1 and 2 the age of acquisition is expressed in months and not in years and months like is conventionally done elsewhere and in the tables and in the examples.

Months	Years and months
0	0;00
10	0;10
20	1;8
30	2;6
40	3;4
50	4;2
60	5;0

<sup>14</sup> A more detailed research in this particular area might be undertaken.



Graph 1. Indonesian temporal markers.



Graph 2. Italian temporal markers.

## 8.1 CROSS-LINGUISTIC STRUCTURES IN THE ACQUISITION OF THE TEMPORAL MARKERS

Analysing the data it appears that the area of temporal markers is prone to cross-linguistic structures, due to the fact that the two languages Guglielmo is exposed to, have different ways to express tense and aspect. As we have seen in the tables and the graphs above, the child acquired the Indonesian temporal markers like monolingual Indonesian children, but significantly later in comparison to Italian monolingual children. Not only are the temporal markers acquired later, but also in Italian contexts many instances of mixed utterances are recorded in the domain of tense and aspect, and mistakes are made in the expression of verbal Italian forms. As already mentioned, the child is dominant in Indonesian where aspect and not tense is expressed and for this reason, at least at the beginning, aspect is felt more relevant and available, thus confirming the general pattern of earlier acquisition of aspect before tense (Bronckart and Sinclair 1973; Antinucci Miller 1976). From the observation of the naturalistic data, the child goes through stages in the acquisition of the temporal markers in the two languages he is exposed to.

In the next sub-sections examples of cross-linguistic structures in the area of temporal markers are illustrated and a preliminary description of the development of the acquisition of temporal markers through different stages is outlined.

### 8.1.1 STAGE I – ONE WORD UTTERANCES: TEMPORAL MARKERS IN ISOLATION

At the beginning until the age of 1;8, no temporal markers are found. At this stage, most utterances consist of just a single lexical/content word. The first temporal marker to appear, the perfective (s)*udah*, occurs at age 1;9. This marker appears in isolation, as a response to questions in an Indonesian, as well as in an Italian context, or spontaneously when the child has succeeded in doing something like putting together two blocks. (S)*udah* is not used with time reference at this stage.

### 8.1.2 STAGE II – ACQUISITION OF INDONESIAN ASPECT MARKERS

At the second stage, from 2;2 to 2;10, one observes the full acquisition of the Indonesian aspect markers and the emergence of the time adverbs *tadi* 'earlier', *nanti/ntar* 'later', *sekarang* 'now', *kemaren* 'yesterday', and *besok* 'tomorrow'. The imperfective aspect marker *lagi* is also observed at this stage (at 2;6) along with the intentional *mau* 'want' that also functions as a proximal future. By the conclusion of this developmental stage (at around 2;10), the child commands the usage of temporal markers.

During this phase, Italian predicates are produced (from around age 2;2) in one-word utterances with omission of the copula and with bare forms of past participles to indicate the resultative aspect.

In example (3) no temporal marker is employed whereas in (4), the child uses the Indonesian aspectual marker of perfectivity *udah* to respond to a question posed in Italian. The correct answer to this question would be a verb in a present perfect or a past participle but the child follows the Indonesian way. When prompted by the mother, he uses an Italian verb in its past participle form, but also this form is incorrect because he transfers one of the meanings of *sudah* 'finished' in his utterance. In fact the appropriate answer should have been *le ho mangiate* 'I have eaten them'.<sup>15</sup>

- (3) *Bagno*    *Lilo*.    2;2  
       bath     *Lilo*.  
       'Lilo is bathing.'

<sup>15</sup> In the following examples I use underline to mark the utterances produced by the child where there is a mistake in the expression of verbal forms in tense, aspect, agreement, or also when a mixed form was used like in (5) or (9). Every utterance is followed by the age the utterance was produced in years and months. Occasionally, utterances produced by the mother (MOT.) are provided too indicating the context for the child's utterance.

- (4) *E le caramelle?* MOT.  
and ART candies.  
'What about the candies?'

*Udah* 2;2  
PFCT  
'Done (I have eaten them).'

*Ah?* MOT.  
huh  
'Huh?'

*Finito.* 2;2  
finish-PPART  
'I finished them.'

The same strategy of using the past participle to mark perfectivity is in example (5), where the past participle *rotto* 'broken' (instead of *rotta*) does not agree with the noun to which it refers. Lack of agreement can be noticed also in (6), where the singular past participle *rotto* with the function of an adjective is reduplicated like in Indonesian to express plurality of the noun to which it refers instead of having the plural ending *-e*, and in (7) (where again the masculine ending *-o* should have been feminine *-a*). The bare form past participle expresses resultative aspect.

- (5) *Alla bicicletta di Guglielmo che è successo?* MOT.  
at the bicycle of Guglielmo what exist. happened?  
3SG  
'What happened to Guglielmo's bicycle?'

*Rotto.* 2;7  
'It's broken.'

- (6) *Yang lampunya rotto-rotto.* 2;7  
REL light-3SG RED-PPART/broken  
'The one whose lights got all broken.'

- (7) *Mamma, caduto.* 2;8  
Mom fall-PPART  
'Mom, it fell down (referring to water)'

## 8.1.3 STAGE III – ACQUISITION OF ITALIAN PERFECTIVE

The third stage, which begins at around 2;10, is the stage at which the child produces the most mixed utterances. At this stage, the perfective form *sudah* or *udah* serves as basis of a transfer from Indonesian to Italian from the moment he starts using Italian in a more active way.

In the utterances (8) through (13) the child expresses perfectivity in Italian using the Indonesian perfective marker *sudah*, followed by an Italian infinitive, indicative or participial verb form.

- (8) *Udah*            *volato*.            2;9  
 PFCT            fly-PPART  
 'It flew away.'
- (9) *Sudah*        *fare*            *cacca*.            2;8  
 PFCT            do-INF            doo-doo.  
 'I did my doo-doo.'
- (10) *Sudah*        *apro*.            2;9  
 PFCT            open-1SG  
 'I opened it.'
- (11) *Udah*        *digirare*.            2;8  
 PFCT            PASS-turn-INF  
 'I twisted it.'
- (12) *Apri*,            *mangia!*    MOT.  
 open-2SG    eat-2SG  
 'Open, eat it!'
- Ulli*    *sudah*    *mangia*,    *Ulli*    *sudah*    *apri*.            3;0  
*Ulli*    PFCT    eat-2SG    *Ulli*    PFCT    open-2SG  
 'I have eaten, I have opened it.'
- (13) *Udah*        *digonfiato*.            3;3  
 'It was blown.'

At this stage, the child is still unable to produce correct morphosyntactic Italian verbal forms, as illustrated by the fact that the marker *sudah* precedes any verbal form available in the child's mind, in (8) and (13) a past participle, in (9) and (11) an infinitive and in (10) and (12) present tense forms. It is noticeable that the child produces mixed forms where he combines the Indonesian passive prefix *di-* with Italian verbs in the infinitive as in (11) or in the past participle form as in (13).

Following this stage, the child replaces the Indonesian functional perfective marker with Italian full lexical items like *basta* 'enough' or *finito* 'finished' as illustrated by the examples (14) through (16).

- (14) *Mamma,      basta      aereoalano.*    3;0  
 Mommy    enough    plane.  
 'Mommy, the plane has left.'

- (15) *Gulli    basta    fare      il      bagno    con    Papà.*    3;0  
 Gulli    enough    do-INF    ART    bath    with    Daddy.  
 'I had a bath with Dad.'

- (16) *Basta      addormentato      Bea?*    3;0  
 enough    fall.asleep-PPART    Bea?  
 'Has Bea fallen asleep?'

Based on evidence like (16), one can observe that the verbal construction contains mistakes in tense/person agreement, while the use of *basta* 'enough' is incorrect, as that is just one of the translations of the Indonesian *sudah*. Example (16) seems to be a reproduction of the corresponding Indonesian sentence in (16a):

- (16a) *Sudah    tidur    Bea?*    2;0  
 PFCT    sleep    Bea?  
 'Has Bea fallen asleep?'

In (16) *sudah* is felt not in its functional meaning of perfectivity but in its full meaning of 'enough'. The same happens with example (17) where *sudah* is perceived in its full meaning of 'finished'.

- (17) *Devi      fare      il      bagno    MOT.*  
 must-2SG    do-INF    ART    bath.  
 'You should have your bath.'

- Finito              bagno.*    3;2  
 finish-PPART    bath.  
 'I had my bath.'

Not long after the child begins using Italian lexical items to express perfectivity, he starts to mark aspect morphologically for the first time. As the following examples illustrate, at around age 2;8, the child begins to use the Italian suffix *-to* to indicate past participles, but without a conjugated auxiliary and without the expected agreement. Examples (18) through (27) show that the child is

fully aware of the meaning of perfectivity carried by the Italian inflectional suffix *-to*, but he is unable to combine it correctly with the proper auxiliary. The use of the past participle without a properly conjugated auxiliary lasts until age 3;6.

- (18) *Mana Ma comprato Papà macchina grande?* 2;8  
 where Mom buy-PPART Daddy car big?  
 'Where did Daddy buy the big car, Mom?'
- (19) *Napa bagnato?* 2;10  
 why wet-PPART?  
 'Why is it wet?'
- (20) *Regalato siapa?* 3;0  
 give-PPART who?  
 'Who gave it to me as a present?'
- (21) *Addormentato nggak?* 3;0  
 fall.asleep-PPART NEG?  
 'Did she fall asleep? Is she sleeping?'
- (22) *Tadi Gulli fatto tuffo tapi nggak minum air.* 3;1  
 earlier Gulli do-PPART dive but NEG drink water.  
 'Gulli dove in but didn't drink any water.'
- (23) *Come facevi ieri al mare?* MOT.  
 how do-IMPF-2SG yesterday at=ART sea?  
 'How were you doing yesterday at the seaside?'
- Ulli fatto tuffo lari-lari sama Ajna.* 2;10  
 Ulli do-PPART dive RED-run with Ajna.  
 'I dove in and then I ran around with Ajna.'
- (24) *Tadi Gulli preso di mana la lumacanya?* 3;3  
 earlier Gulli take-PPART LOC where ART snail-NYA?  
 'Where did I get the snail from?'
- (25) *siapa yang caduto?* 3;4  
 who REL fall-PPART?  
 'Who fell down?'



- (26) *Dove l'hai visto? MOT.*  
 where it=have2SG see-PPART?  
 'Where did you see it?'  
  
*Andato a Napoli. 3;6*  
 go-PPART to Naples.  
 '(When I) went to Naples.'
- (27) *Mamma perché ieri sera Gulli mangiato?*  
 Mommy why yesterday evening Gulli eat-PPART  
  
*la rana? 3;6*  
 ART frog?  
 'Mom, why (how come) did I eat frogs last night?'

#### 8.1.4 STAGE IV – ACQUISITION OF ITALIAN IMPERFECTIVE

This stage sees the emergence of the progressive aspect marking in Italian. While the child is sorting out the appropriate way to express perfective aspect with non-inflected Italian verbs (roughly 3;3), he also begins to produce Italian sentences marked by the gerund ending *-ndo* to mark imperfective aspect. In a parallel pattern to the acquisition of the perfect marker, where the Indonesian lexical item *sudah* in (8) through (17) served as basis of a transfer from Indonesian to Italian, from the moment Guglielmo started using Italian in a more active way, his utterances still contain the Indonesian progressive marker *lagi*. Examples (28) and (29) illustrate the fact that the child, although he perceives the imperfective meaning carried by the Italian ending *-ndo*, he still needs to employ the Indonesian aspect marker *lagi* to express imperfectivity. In the subsequent months (around 3;6), this marker is replaced in (30) and (31) by the Italian auxiliary *stare* 'stay', which typically does not exhibit appropriate subject agreement.

- (28) *Papà lagi dormendo. 3;3*  
 Daddy IMPFCT sleep-GER.  
 'Daddy is sleeping.'
- (29) *Mamma lagi guidando. 3;3*  
 Mommy IMPFCT drive-GER.  
 'Mommy is driving.'
- (30) *Sta vedendo il treno. 3;6*  
 stay-3SG see-GER ART train.  
 'He is looking at the train.'

- (31) *Sta buiendo.* 3;4  
 stay-3SG dark-GER  
 'It's getting dark.'

In (31), Guglielmo inappropriately produces *stare* 'stay' with a nominal predicate *buio* 'dark'. This may be an indication that he treats *stare*, which may only occur with verbal predicates, as if it had the same grammatical properties as *lagi*, which may occur with both verbal, adjectival and nominal predicates. So far he applies this temporal marker to activities and never to states.

These structures persist for a relatively long period of time, since they continue even after the child starts to produce sentences in Italian, but with obvious mistakes of tense and agreement. These mistakes start to decrease after the age of 5;0 when the child's competence in Italian progresses rapidly towards the more adult-like form.

#### 8.1.5 STAGE V – TOWARDS ADULT-LIKE ITALIAN FORMS

At the fifth stage, which begins at roughly 4 years of age, the child's production of Italian morphology becomes more refined. At this stage, the child begins to apply the appropriate morphosyntactic rules for tense, number, and agreement, but he often fails to produce the correct forms as regards number and gender agreement. Examples (32) through (35), recorded between age 3;6 till 3;10, show some of these mistakes.

- (32) *Dove siamo andati stamattina?* MOT.  
 Where exist-1PL go-PPART this.morning?  
 'Where did we go this morning?'

*Siamo andiamo a Citos.* 3;10  
 exist-1PL go-1PL to Citos.  
 'We went to Citos.'

*A fare che cosa?* MOT.  
 to do-INF what thing?  
 'To do what?'

*Mangio il gelato.* 3;10  
 eat-1SG ART ice-cream.  
 'I eat the ice-cream.'

*E poi?* MOT.  
 And then?  
 'And then?'

E poi andiamo a casa. 3;10

'And then we go home.'

(33) *Quale pasta vuoi?* MOT.

which pasta want-2SG

'Which pasta do you want?'

Yang fatto Mamma Uti. 3;6

'The one Mommy Uti did.'

(34) *Basta Ma giocare.* 3;7

enough Mom play-INF

'I have finished playing/ I have played (already).'

(35) *Gulli voglio vedere dinosauri quello che*

Gulli want-1SG see-INF dinosaurs that REL

comprato Papá. 3;7

buy-PPART Daddy.

'I want to see the dinosaurs that Daddy bought.'

In example (32), it is clear that Guglielmo understands that the time reference is past from the present perfect and the temporal adverbs used by the mother. However, after attempting to use the auxiliary *siamo*, he simply uses the present tense (*andiamo*) instead of the past participle *andati*. Probably Guglielmo considers it the default form to use since it is inferred from the context and the shared knowledge that the event is past. The number disagreement of the first singular person instead of the first plural person can be explained simply because Guglielmo actually ate the ice cream and not the mother. In examples (33) and (35) the child still fails to use the correct present perfect, since the past participles have to be preceded by a form of the auxiliary *avere* 'have'. Examples (36) through (38) show that the child understands the use of the auxiliary before the past participle, but in (36) he still makes mistakes in the selection of the right one ('have' instead of 'be'). In (39) instead of using the auxiliary, Guglielmo still uses *finito* as a marker of perfectivity translating the Indonesian marker *sudah* that is felt not in its functional meaning but in its full meaning of 'finished'.

(36) *Ho andato con Mamma.* 3;10

have-1SG go-PPART with Mommy.

'I went with Mommy.'

- (37) *Chi è venuto?* 4;1  
 who exist.3SG come-PPART  
 'Who came?'
- (38) *Vedi che ha trovato.* 4;11  
 see-2SG what have-3SG find-PPART  
 'See what he has found.'
- (39) *Finito mangiato voglio andare a casa*  
 finish-PPART eat-PPART want-1SG go-INF to house  
*di Kayla.* 5;9  
 of Kayla.  
 'After eating I want to go to Kayla's house.'

Imperfect starts to be employed to express a state like in example (40).

- (40) *Ci stave una farfalla.* 4;0  
 there stay-IMPF-3SG ART butterfly.  
 'There was a butterfly.'

At this stage we find Indonesian utterances in which there seems to be redundant use of temporal markers like *sedang* in (41). In (42), *sedang* followed by an expression for a state is even inappropriate.

- (41) *Sedang datang.* 4;0  
 IMPFCT come.  
 'I am coming.'
- (42) *Waktu Gulli sedang kecil.* 3;9  
 when Gulli IMPFCT small.  
 'When I was a child.'

Examples (41) and (42) can be the result of cross-linguistic influence of Italian in Jakarta Indonesian or transfer from the weaker language to the stronger. Here the child has incorrectly assumed that the imperfect encodes the imperfective aspect (because the action does not include end point) and therefore has to be marked by progressivity just like activity verbs. Progressive and imperfect both express imperfectivity, which is linked to durativity. The child associates progressive and imperfective marking with durative predicates so in this case he incorrectly assumes that the action of coming (*datang*) and state of being small (*kecil*) being imperfective should therefore be marked accordingly: with the marker *sedang* for imperfectivity. If it is true that a progressive implies an

imperfective meaning, it is not true that the imperfect does necessarily imply a progressive meaning.

The acquisition of temporal markers in Italian in Guglielmo seems to follow the same developmental path observed in L2 learners of Italian. According to Bernini (2004) and Bernini and Giacalone Ramat (1990) the imperfect is acquired after the bare form, followed by the present perfect, and successively by the imperfect and the future.

A frequent mistake observed in the speech of Italian L2 learners is the incorrect use of the present perfect in environments which require the use of an imperfect verb. Speakers presumably assume that these forms are interchangeable, because both forms express events which occurred in the past. Italian L2 learners also find it difficult to differentiate between progressive and imperfect verb forms, since both forms exhibit imperfective aspect, neutralizing the opposition between present and past (Bernini 2004).

## 9 DISCUSSION

From the observation of the examples displayed in the previous section, it is clear that the child until age 4;0, has acquired the Italian aspectual oppositions and is indeed able to understand differences in tense. Nevertheless he is not able to productively display these oppositions.

Can we interpret Guglielmo's failure to produce well-formed Italian verbs as resulting from interference from the Indonesian system (the cross-linguistic interpretation) or are the errors a result of Guglielmo's insufficient control of the Italian system itself (the developmental stage interpretation)? Maybe both the interpretations are valid.

If we interpret the mistakes as a consequence of a transfer effect, then we imply that the Indonesian verbal system might be felt as frequently available, reliable and perceptually salient in the child's mind, so that it wins over cues felt of lesser strength by the child (namely the Italian verbal system based on tense). Guglielmo, who has not yet mastered the Italian system, may attempt to make short cuts and allow strategies from one language, Jakarta Indonesian, to be used in the other one. The production of utterances where verbal morphology is incorrect can be the result of the overgeneralization that a single form of the verb plays all the functions played by the verb in Indonesian.

Another explanation for the observed interference in Guglielmo's Italian has to do with lack of input, though no in-depth study of the input has been carried out as yet. It is possible that, as a result of limited exposure to Italian, Guglielmo has not obtained a level of grammatical input sufficient to posit the abstract grammatical word classes, which underlie the distribution of verbal morphology in Italian. According to the Critical Mass Argument, put forward by Marchman and Bates (1994), a speaker's grammar fails to develop the grammatical properties of a target language as long as the set of input to which the speaker has been exposed is not large enough or representative enough to extract general patterns. Tomasello (2000) claims that, by age 3;0

monolingual speakers have obtained enough input to acquire a verb specific and construction specific usage, and this is the start for a more creative stage where the verb belongs to a more abstract category. This limit has to be lengthened up to age 5 for the bilingual child who has been the subject of the present study. Though no study about the minimum exposure to a language is necessary to produce a regular developmental path has been undertaken yet, it seems that with Guglielmo both cross-linguistic influence and lack of input determine the late command of the tense-aspect system of Italian. The idea of piecemeal acquisition of the formal verbal paradigms of the language after the cognitive acquisition of aspect and tense seems to be appropriate.

## 10 CONCLUSION

This paper describes the acquisition of temporal markers in a bilingual child growing up with two typologically different languages, Jakarta Indonesian and Italian. The analysis of naturalistic data of Guglielmo shows that the acquisition of temporal markers in Indonesian, the dominant language the child is exposed to, is very similar to that of Indonesian monolinguals. As far as Italian is concerned, Guglielmo does not overtly express tense until relatively late. Before he has fully acquired tense marking, the child produces Italian verbs in their infinitive form (or any other default form that might have been learnt by rote, such as a first singular person of the present or the third singular person) preceded by a lexeme indicating perfectivity.

I argue that pragmatically marked aspect in speech events, as in Indonesian, is more salient in Guglielmo's mind. This seems to be in contrast to the view that morphologically transparent languages such as Italian allow children to acquire grammatical contrasts earlier (Hyams 1986; Guasti 1993). This study tries to explain that the child's inability to produce morphologically correct forms in Italian is due to a lack of input, but that there is also cross-linguistic influence from Indonesian, the dominant language. In Indonesian, the only salient verbal marker is aspectual. And this is generally expressed periphrastically.

The evidence gained by case studies demonstrates that there is a high degree of variation among bilinguals. This variation might depend on a variety of individual factors, but also on the language combination to which the bilingual child is exposed to: some language combinations generate greater structural ambiguities than others.

Other than assessing the validity of the question "one system or two", the occurrence of these structures crucially depends on the degree of inter-language ambiguity that is being generated by a particular language combination for a particular language module.

One hypothesis tested in this study is that the cross-linguistic influence is due to dominance. As Schlyter (1993: 289) observes: "the two languages are not in quite balance during their development but [...] one of the two languages is weaker". In other words, while Guglielmo's Indonesian exhibits normal monolingual acquisition, his Italian lags behind. If this possibility is correct

then the cross-linguistic influence should be unilateral, from the stronger to the weaker language. The data presented in this paper indicate that the bilingual child, Guglielmo, does not fully master the Italian verbal system by the age of 4;0, even though at this age he exhibits the same mastery of the Indonesian temporal markers as his Indonesian peers. If Guglielmo is able to talk about actions following the path of monolingual Indonesian children, he lags behind in his capability to produce the rich morphological verbal system of Italian.

This analysis strengthens the hypothesis that children learn aspectual oppositions before those of tense (Antinucci and Miller 1976), and that verbal morphology is acquired through slow and gradual verb-specific learning (Serratrice 2001).

Guglielmo acquires temporal markers in Indonesian within a roughly normal time frame, lagging only slightly behind his monolingual Indonesian peers. In contrast, Guglielmo's acquisition of tense and aspect markers in Italian occurs at a much slower pace than that of monolingual Italian speakers. Moreover, the stages through which he progresses in acquiring the Italian tense and aspect marking system reflects heavy interference from Indonesian.

In conclusion, cross-linguistic influence of the dominant language, Indonesian, based on an opposition between perfective and imperfective and a pragmatic expression of tense, seems to reinforce the "Aspect before tense acquisition" hypothesis. Our data also seem to be in accordance with the language specific idea of acquisition proposed by Serratrice (2001) who demonstrates that only when the child has acquired a large number of lexical items he can extract the paradigm.

The view of a child's bilingualism as a source of potential disturbances must be abandoned. Instead, monolingualism can be regarded as resulting from an impoverished environment, where an opportunity to exhaust the potential of the language faculty is not fully developed (Meisel 2004).

As already argued in Soriente (2007a, b), in order to more thoroughly investigate these issues, a study on cross-linguistic influence and the interaction of different linguistic systems are needed. Considering the high potential of research in Indonesia, where virtually every child is born bilingual, this field is very likely to expand and more and more research on different language dyads can be expected. Add to this the increased mobility of the speakers of 700 odd regional languages in Indonesia and the spread of international languages in the country, and it will be clear that the potential for further research is even widened. It remains to be seen whether certain language combinations produce heightened degrees of structural cognitive dissonance. And it is this domain of research, particularly with structurally acutely distinct languages and poly-linguistic settings, that offers an especially interesting research horizon.

On a modest level, this paper is an empirical study looking at the acquisition of tense and aspect marking in a bilingual child, whose target languages have very different systems. It demonstrates the structural dominance of the stronger language on the weaker one. As such, it presents a contribution to

the literature on this phenomenon, by examining a case of bilingual language acquisition rarely considered – that of Jakarta Indonesian and Italian.

## ABBREVIATIONS

1 2 3	person
ART	article
GER	gerund
NEG	negator
IMP	imperative
IMPF	imperfect
IMPFCT	imperfective
INF	infinitive
PASS	passive voice
PFCT	perfective
PL	plural
PPART	past participle
REL	relativizer
SG	singular

## REFERENCES

- Antelmi, Donatella. 1997. *La prima grammatica dell'italiano*. Bologna: Il Mulino.
- Antinucci, Francesco and Ruth Miller. 1976. "How children talk about what happened", *Journal of Child Language* 3: 167-189.
- Bernini, Giuliano. 2004. "La seconda volta; La (ri)costituzione di categorie linguistiche nell'acquisizione di L2", in: Lidia Costamagna and Stefania Giannini (eds), *Acquisizione e mutamento di categorie linguistiche; Atti del XXVIII Convegno della Società Italiana di Glottologia*, Perugia, 23-25 October 2003, pp. 121-150. Roma: Il Calamo.
- Bernini, Giuliano and Anna Giacalone Ramat (eds). 1990. *La temporalità nell'acquisizione di lingue seconde*. Milano: Franco Angeli. [Materiali linguistici 2.]
- Bhatia, Tej K. and William C. Ritchie. 2004. *The handbook of bilingualism*. Oxford: Blackwell Publishing.
- Bialystok, Ellen. 2001. *Bilingualism in development; Language, literacy, and cognition*. Cambridge: Cambridge University Press.
- Bronckart Jean P. and Hermine Sinclair. 1973. "Time, tense and aspect", *Cognition*, 2(1): 107-130.
- Crystal, D. 1997. *English as a global language*. Cambridge: Cambridge University Press.
- De Houwer, Annick. 1995. "Bilingual language acquisition", in: Fletcher, Paul and Brian Mac Whinney (eds), *The handbook of child language*, pp. 219-250. Oxford: Blackwell.



- Döpke, Susanne. 1998. "Competing language structures; The acquisition of verb placement by bilingual German-English children", *Journal of Child Language* 25: 555-584.
- Döpke, Susanne. 2001a. "Introduction; On the status of cross-linguistic structures in research on young children growing up with two languages simultaneously", in: Susanne Döpke (ed.), *Cross-linguistic structures in simultaneous bilingualism*, pp. 1-10. Amsterdam: John Benjamins.
- Döpke, Susanne. 2001b. "The interplay between language-specific development and cross-linguistic influence", in: Susanne Döpke (ed.), *Cross-linguistic structures in simultaneous bilingualism*, pp. 79-103. Amsterdam: John Benjamins.
- Ewing, Michael. 2005. "Colloquial Indonesian", in: Alexander Adelaar and Nikolaus Himmelmann (eds), *The Austronesian languages of Asia and Madagascar*, pp. 227-258. London: Routledge.
- Gawlitsek-Maiwald, Ira and Rosemarie Tracy. 1996. "Bilingual bootstrapping", *Linguistics* 34: 901-926.
- Grosjean, François. 1982. *Life with two languages*. Cambridge, Mass./Cambridge, London: Harvard University Press.
- Grosjean, François. 1998. "Studying bilinguals; Methodological and conceptual issues", *Bilingualism: Language and Cognition* 1(2): 131-149.
- Guasti, Maria Teresa. 1993. "Verb syntax in Italian child grammar; Finite and nonfinite verbs", *Language Acquisition* 3: 1-40.
- Hulk, Afke and Natasha Müller. 2000. "Cross-linguistic influence at the interface between syntax and pragmatics", *Bilingualism; Language and Cognition* 3(3): 227-244.
- Hyams, Nina. 1986. *Language acquisition and the theory of parameters*. Dordrecht: D. Reidel.
- Kupisch, Tania. 2007. "Determiners in bilingual German-Italian children; What they tell us about the relation between language influence and language dominance", *Bilingualism; Language and Cognition*, 10(1): 57-78.
- Lanza, Elizabeth. 1992. "Can bilingual two-year-olds code-switch?", *Journal of Child Language*, 19, 3: 633 - 658.
- Lanza, Elizabeth. 2001. "Concluding remarks; Language contact - A dilemma for the bilingual child or for the linguist?", in: Susanne Döpke (ed.), *Cross-linguistic structures in simultaneous bilingualism*, pp. 227-245. Amsterdam: John Benjamins.
- MacWhinney, Brian. 2000. *The CHILDES project; Tools for analyzing talk*. Third edition. Vol. I and II. New Jersey: Laurence Erlbaum.
- MacWhinney, Brian and Catherine Snow. 1985. "The child language data exchange system", *Journal of Child Language* 12: 271-296.
- Marchman, Virginia and Elizabeth Bates. 1994. "Continuity in lexical and morphological development; A test of the critical mass hypothesis", *Journal of Child Language* 21: 339-366.
- Meisel, Jürgen. 1990. "Grammatical development in the simultaneous acquisition of the two first languages", in: Meisel, Jürgen (ed.), *Two first*

- languages; *Early grammatical development in bilingual children*, pp. 6-20. Dordrecht: Foris Publications Holland.
- Meisel, Jürgen. 2000. "Early differentiation of languages in bilingual children", in: L. Wei (ed.), *The bilingualism reader*, pp. 344-369. London: Routledge.
- Meisel Jürgen. 2004. "The bilingual child", in: Bhatia, Tej K. and William C. Ritchie (eds.), *The handbook of bilingualism*, pp. 91-113. Blackwell Publishing.
- Müller, Natasha. 1998. "Transfer in bilingual first language acquisition", *Bilingualism: Language and Cognition* 1(3): 151-171.
- Paradis, Johanne and Fred Genesee. 1996. "Syntactic acquisition in bilingual children; Autonomous or interdependent?", *Studies in second language Acquisition* 18: 1-15.
- Paradis, Michel. 2004. *A neurolinguistic theory of bilingualism*. Amsterdam: John Benjamins.
- Renzi, Lorenzi, Gianpaolo Salvi, and Anna Cardinaletti. 2001. *Grande grammatica italiana di consultazione*. 3 vols. Bologna: Il Mulino.
- Salvi, Gianpaolo and Laura Vanelli. 2004. *Nuova grammatica italiana*. Bologna: Il Mulino.
- Schlyter, Suzanne. 1993. "The weaker language in bilingual Swedish-French children", in: K. Hyltenstam and A. Viberg (eds), *Progression and Regression in language*, pp. 289-308. Cambridge: Cambridge University Press.
- Serratrice, Ludovica. 2001. "The emergence of verbal morphology and the lead-lag pattern issue in bilingual acquisition", in: Cenoz, J. and F. Genesee (eds), *Trends in bilingual acquisition*, pp. 43-70. Amsterdam: John Benjamins.
- Sinka, Indra. 2001. "The search for cross-linguistic influences in the language of young Latvian-English bilinguals", in: Susanne Döpke (ed.), *Cross-linguistic structures in simultaneous bilingualism*, pp. 149-174. Amsterdam: John Benjamins.
- Sneddon, James, N. 2006. *Colloquial Jakartan Indonesian*. Canberra: Pacific Linguistics.
- Sneddon James N., Alexander Adelaar, Dwi Noverini Djenar, and Michael Ewing. 2010. *Indonesian; A comprehensive grammar*. Sydney: Allen and Unwin.
- Soriente, Antonia. 2006. "Dominance and language choice in an Indonesian-Italian bilingual child", in: Vliegen, M. (ed.), *Variation in sprachtheorie und spracherwerb*. Akten des 39 Linguistischen Kolloquiums in Amsterdam 2004: 315-326.
- Soriente, Antonia. 2007a. "Cross-linguistic and cognitive aspects in the acquisition of WH-questions in an Italian-Indonesian bilingual child", in: Keszkes, Istvan and Liliana Albertazzi (eds), *Cognitive aspects of bilingualism*, pp. 325-362. Dordrecht: Springer.
- Soriente, Antonia. 2007b. "Pragmatic versus grammatical coding of time; The acquisition of TAM markers in an Italian-Indonesian bilingual child". Paper presented at ISB6 (The Sixth International Seminar on Bilingualism). Hamburg 30 May-2 June 2007.
- Tomasello, Michael. 2000. "Do young children have adult syntactic competence?", *Cognition* 74: 209-253.

- Volterra, Virginia and Traute Taeschner. 1978. "The acquisition and development of language by bilingual children", *Journal of Child Language* 5: 311-326.
- Yip, Virginia and Stephen Matthews. 2000. "Syntactic transfer in a Cantonese-English bilingual child", *Bilingualism; Language and Cognition* 3(3): 193-208.