Successive Language Learning in Early Childhood: The Case of Question Formation

ANN-KRISTIN H. GUJORD[1], RANDI NETELAND[1] & MAGNHILD SELÅS[2]

[1]Universitety of Bergen, [2]University of Agder

ABSTRACT
This study investigates the emergence of question formation in multilingual and monolingal children aged 3–5 from two Norwegian kindergartens. The data is longitudinal and collected during play. The overall purpose of the study is to explore whether, and if so how, the language of multilingual children with an early onset of acquisition of Norwegian (early successive language learning) differs compared to that of monolingual children who have been exposed to Norwegian from birth (crib monolinguals). The study finds that the individual early successive learner's questions differ more in terms of developmental stages than their monolingual peers' questions.

KEYWORDS
Early successive language learning, question formation, age of acquisition, L2 Norwegian

1. Introduction

In this study, the acquisition of Norwegian by a growing segment of the population of pupils in Norwegian kindergartens and schools is in focus: children who come from homes where Norwegian is not the primary language spoken. These children are exposed to Norwegian first upon entering kindergarten. Accordingly, they meet the majority language, Norwegian, one of the languages they aquire in childhood, later than their monolingual peers. This type of language acquisition will be referred to as 'early successive language acquisition', and typically occurs in second-generation migrant children.

The study is a part of the research project 'Children's Language. Language and Dialect Contact in the Modern Kindergarten' aiming at documenting language use and variation in Norwegian kindergartens. In this paper, our aim is twofold: (1) We present an explorative empirical study of how multilingual children with early successive acquisition of Norwegian acquire various types of questions in Norwegian; (2) These findings contribute to the important theoretical debate on to what extent these children differ in their development from monolingual children of the same age who have been exposed to Norwegian from birth (crib monolinguals, Bylund, Hyltenstam & Abrahamsson 2021).

ann-kristin.gujord@uib.no

Both mono- and multilingual speakers of Norwegian participate in the study. The multilingual children in this study have been exposed to one or two languages from birth. They started to acquire Norwegian when they joined kindergarten before the age of 3. These children belong to a understudied group of language learners: children with an early onset of L2. Although multilingual language learning and the role of age of acquisition has been extensively studied for years, if and to what extent children who acquire an additional language in *early* childhood (between the age of 1 and 3) differ in their pace and success of the acquisition of the majority language (the L2) compared to crib monolinguals, has not yet been investigated sufficiently (e.g. Hyltenstam & Abrahamsson, 2000; Genesee 2016). Effects of delayed age of acquisition in early childhood, that is before the age of four, remains an open question (i.e., Schulz & Grimm, 2019). As we compare the Norwegian language development in two groups of children distinguished in *age of acqusition*, the study is highly relevant for the question of effects of early age of onset. The lack of knowledge about the language development in the L2 among early successive language learners is unfortunate for several reasons. First and foremost, linguistic proficiency in the majority language is crucial for the social inclusion of children with immigrant parents, and despite efforts to improve immigrant children's language development, for instance by increasing the enrolment rate in kindergartens, these children perform lower than monolingual Norwegian children on language-based skills such as reading comprehension (OECD, 2019). Empirical studies such as this one, point out the often subtle linguistic differences between multi- and monolingual children, and therefore contribute to an increased knowledge about this group of language learners.

The data consist of recordings of naturalistic speech collected during play in two kindergartens. The project is based on a conceptual approach to language acquisition emphasising both function and form. The question driving the analysis is how the children express questions by the use of the pragmatic, lexical and/or grammatical resources they are in command of in Norwegian, and not how the formal properties of a specific type of question emerge. Accordingly, the questions are grouped together in types based on the empirical data, i.e. they are not predetermined by formal descriptions of Norwegian question types, but grounded in the questions the children actually ask, and how the more complex questions gradually emerge. We also compare the questions posed by the children with the input language that surrounds them. The input language is documented by recordings of questions posed by adult kindergarten employees talking to children and adults talking to each other.

The paper is structured as follows. We will first present central terms and research on multilingual development in early childhood (Section 2). Then Norwegian question syntax will be presented as well as previous research on how children acquire questions in Norwegian and related languages (Section 3). Next, a section introducing the study's data material and methodology will follow (Section 4). The results of the empirical study are presented in Section 5 and discussed in Section 6.

2. Monolingual & multilingual language development, successive & simultaneous bilingualism

The two groups of children in the current study are distinguished in the number of languages they have been exposed to since birth and continue to be exposed to daily. Even though some researchers argue that there exist differences between bi- and multilingual language users (see for instance Butler 2013), the most important distinction in this study is between *multilingual* children who grow up with more than one language, and *monolingual* children who grow up with one language. We start from Butler's (2013) definition of 'multilingual users' as:

> ...individuals or groups of people who obtain communicative competence in more than one language, with various degrees of proficiencies, in oral and/or written forms, in order to interact with speakers of one or more languages in a given society" (2013:112).

The two groups of children are also distinguished in the *age of acqusition* in the language they have in common, Norwegian, which also is the majority language. Contrary to monolingual learners who have been exposed to Norwegian from birth, the multilingual children are slightly delayed in their age of acquisition of Norwegian. Hence, they are 'successive learners' of Norwegian, and 'successive bilinguals' (e.g., Tabors 1997), as they receive exposure to only the family language at home (L1) and are exposed to Norwegian (L2) when entering kindergarten. Our assumption is that the delay and different exposure might give a different linguistic outcome. Successive bilingualism is opposed to 'simultaneous bilingualism', also called 'crib bilingualism', which refers to the simultaneous exposure from birth to more than one language, for instance the home language and the majority language, or as is the case for some of the children in the current study, two home languages (two minority languages, two L1s) (Ah-Young, Park & Lust 2016). According to Schulz & Grimm (2019), there is general agreement in the field that successive acquisition after the age of seven, "qualitatively differs from first language acquisition, reaching the upper cutoff point of a critical or sensitive period for L1 acquisition" (p. 2). The cutoff point in the lower end of the continuum, however, remains disputed. The line between bilingualism and successive bilingualism is often drawn at the age of three or four (e.g. Meisel 2011; Unsworth 2009, 2013). This line of practice dates to McLaughlin's (1987) definition of L2 learners as persons whose first exposure to the second language occur after the age four, that is, when the bulk of their first language is acquired (Unsworth 2009). Other researchers argue that the line between simultanous and successive bilingualism, and henceforth also between first and second language acquisition, occurs earlier than three or four, some even suggest after a few months after birth (e.g., De Houwer, 1995). According to them, ages of 3–4 could be too late for capturing early differences as there are important developmental differences between a child who is exposed to one or more language from birth and a child whose exposure to one of those languages begins between ages 1 and 3 (e.g. Yip, 2013).

According to the literature, crib bilinguals will acquire native competences in both languages as long as they receive sufficient exposure to their languages (Meisel 2006, 2017; Hoff et al.

2012; Genesee 2006). With regard to the language outcome when children are exposed to L2 not from birth, but earlier than age four (successive bilingualism in early childhood), the literature is not clear. Hyltenstam and Abrahamsson (2000:160) claim that children who acquire a new language during the first years of life, (early successive learners), are underrepresented in research on linguistic development in childhood, and that it has been 'taken for granted' that these children arrive at the same proficiency level as their monolingual peers. According to Meisel, the 'picture is less clear' with respect to successive acquisition of languages during the first three or four years of life, and more research is needed (2006:111), and this viewpoint is shared by Genesee (2006, 2016) who also calls for more research on the topic.[1]

An increasing number of children in Norwegian kindergartens are successive language learners and belong to this group of early multilingual successive language learners that we know less about. Hence it is particularly important to investigate the language development of these children. Against the backdrop of the knowledge we have of effects of early delayed age of onset of language acquisition across various language groups (e.g., Birdsong 2018), for instance L2 learners (Hyltenstam & Abrahamsson 2003; Bylund, Hyltenstam & Abrahamsson 2021), internationally adopted children (e.g. Normann, Hyltenstam & Bylund 2016; Schjetne 2020), deaf children who receive cochlear implantation (Kirk et al. 2002; Nicholas & Geers 2007) and heritage speakers (language attrition) (Flores, 2010), the study of potential effects of a delayed age of acquisition is pertinent. This research demonstrates that age of onset has major implications for L2 attainment, implantation benefits and degree of attrition, and recent studies suggests that the age effects are gradient (Paradis 2007; Herschensohn 2013).

3. Previous research

The overall aim of the present study is to investigate how early successive language learners of Norwegian acquire various types of questions, and to what extent they differ in their development from monolinguals. The choice of focusing on *questions* in the present study is first and foremost motivated by findings from a previous descriptive case study of two learner's early successive language development (Gujord, Neteland & Selås 2018). This study shows that the children develop longer sentences and start using more complex constructions as they grow older, and importantly, the study shows that questions capture this development particulary well as the children gradually use a wider range of questions and more complex question types (Gujord, Neteland & Selås 2018:109). This case study is an exception: The linguistic development of this particular group of child learners of Norwegian has previously barely been studied. Accordingly, there are not many studies that are directly relevant to the current study. However, there are studies of the acquisition of questions by monolingual first language learners of Norwegian (e.g. Westergaard 2009), and of other syntactic features in Norwegian by monolingual and simultaneous first language learners of Norwegian (see Section 3.2).

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1   Moreover, a challenge in the field of multilingual development is that many studies do not describe their criteria for inclusion/exclusion (Hammer, Hoff, Uchikoshi, Gillanders, Castro & Sadillos 2014), and meta-analyses of multilingual language development in early childhood build on samples including both 'crib-multilinguals' and children who were exposed to the additional language sometime during the preschool years (e.g. Barac, Bialystok, Castro & Sanchez 2014; Hammer et al. 2014).

3.1 Norwegian question syntax

Norwegian is normally considered to have canonical SVO-order of syntactic elements, albeit Jensen (2018:238) questions whether SVO is the most frequent order, and Næss (2011) prefers to categorise Norwegian as a V2 language to point out frequent use of adverbials in the beginning of sentences. Ribu, Simonsen, Løver, Strand & Kristoffersen (2019, based on Lie 1992) and Westergaard (2003) describe Norwegian as a V2 language in main clauses and *wh*-questions.[2] Embedded clauses with sentence adverbials generally have V3 word order, especially in sentences with *ikke* 'not' as sentence adverbial. Children and L2 learners of Norwegian thus meet input with mixed word order, both SVO, XVSO, and sentences in informal speech with no subject (see Nistov 1999:152).

Norwegian questions are constructed in different ways. One category is *questions with subject-verb-inversion*, almost always beginning with the finite verb. The subject-verb-inverted questions may have different forms, using for instance intonation to mark what part of the sentence the recipient is asked to answer. The *wh*-questions start with a question word (either a pronoun, a determinative or an adverb, see Faarlund, Lie & Vannebo 1997:936–943) and are followed by a finite verb (see for instance Kulbrandstad & Kinn 2016:335–336; Faarlund, Lie & Vannebo 1997:932–943). The question words can also be a phrase or part of a phrase. A third category of questions is questions with SVO-order or an initial adverb, giving the sentence a declarative syntax, but signaling the question with a tag such as *ikke sant?* (right?) or *er du ikke?* (don't you?) and/or question intonation. Faarlund, Lie and Vannebo (1997:930–931) list these questions as declaratives, used as questions. Despite the fact that these questions are relatively simple syntactically, they form an advanced speech act, as the tag turns the declarative sentence into a question. In this study we consider these constructions to be questions due to their pragmatic function as interrogatives (see Section 4).

In our study, we consider both formal and functional characteristics of utterances used as questions. As mentioned before, we give a description of questions used and growth in linguistic resources based on the empirical data. For instance, a sentence can function as a question with the verb undeclined, but the question is formally more advanced if the verb is declined. The categories of questions are described in Section 4.3.

3.2 Acquisition of questions by children

As accounted for in Section 1, the topic of *early successive language acquisition* has not received a lot of attention in research on multilingualism/bilingualism and SLA research. Although there is much international research comparing various aspects of successive and simultaneous bilingual acquisition (e.g. Unsworth 2013), there is only scarce empirical research focusing explicitly on the child learner group in focus in the present study, and comparing the language acquisition of successive learners to crib monolinguals. In the context of acquisition of Norwegian, an exception is a previous case study involving two of the early successive learners in the present project, Hermela and Natan, with different onset and length of exposure to Norwegian (Hermela's

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2   Ribu et al. (2019) and Westergaard (2003) also point out that Northern and Western dialects can have V3 in *wh*-questions. This is not relevant for the local variety studied in this paper.

onset being 11 months, Natan's 2 years and 6 months) (Gujord, Neteland & Selås 2018). In this study, the children's Norwegian language development within the domains of morphology, syntax and vocabulary was tracked through a period of 2 years and 7 months. At the first recordings, when the children were 3 years and 4 months old, the Norwegian skills for both children lagged behind compared to that of monolingual peers, although the gap was largest for Natan. However, during the period when we followed their language development, their language became steadily more complex. As a result, the gap between their language skills and the language skills to be expected of monolingual peers, was gradually closing. Importantly, the study also points to a possible development in question syntax, as the children gradually use a wider range of questions and more complex question types (Gujord, Neteland & Selås 2018:109).

The acquisition of questions by *monolingual children in Norwegian* has not been discussed a lot. An exception is Westergaard's (2009) longitudinal study of three L1 Norwegian children documenting their acqustion of syntax. The empirical data shows that the children form questions with appropriate word order as soon as the various question types emerge in the children's speech (Westergaard 2009:200–201). Yes/no-questions are acquired very early and the frequency of the various non-target-like questions decrease as the children grow older and are quite infrequent when they are three years old. Similar results are found in investigations of first language acquisition of other Germanic languages such as German (Clahsen 1982), Dutch (Jordens 2012), and Swedish (Waldmann 2008). Westergaard's study is only partially relevant for the present study because of her formalistic approach to language, which does not include all of the utterances functioning as questions that we find in our data material.

Although some utterances that functionally are questions diverge from the grammar of written Norwegian, it does not necessarily mean they are not used in everyday oral language by adult language users. For instance, posing questions that are one-word utterances is perfectly fine in many situations. Hence, we use the term 'target-like' to connotate that the constructions can be used in Norwegian oral language, regardless of whether they are considered grammatically correct in the written standard language or not.

With regard to studies of *other syntactic features in Norwegian among children*, there are studies on various morphosyntactic aspects, for instance verb placement and gender, however, these are also closely connected to the research organised within the research group *Acquisition, Variation & Attrition* (AcqVA) at the University of Tromsø and the Norwegian University of Science and Technology, i.e. conducted within a formal linguistic approach to language and thus difficult to compare to the present study.

Within the field of *acquisition of Norwegian as a second language by children*, there are not many studies that are directly relevant. First, similar to the international field of second language acquisition (SLA), most Norwegian SLA researchers study L2 acquisition among adults, and much less research has been undertaken with children (Oliver & Azkarai, 2017; Paradis, 2007). Second, according to Jensen (2018), the information we have on syntactic development in general in Norwegian SLA research is fragmentary and based on small scale studies. In his survey of research on syntax in Norwegian L2, he does not find much on acquisition of question syntax (2018:252) (our previous study of two of the early successive learners, Hermela and

Natan (Gujord, Neteland & Selås 2018), was not published at the time Jensen analysed Norwegian research on L2 syntax). However, some of the syntactic features of Norwegian that he puts forward as difficult to acquire: subject-verb inversion, obligatory subject, and negation, play an important role in the construction of questions. Furthermore, a study not mentioned in Jensen, by Mosfjeld (2017), should be mentioned here as effects of age of onset are investigated. This study of second language acquisition of Norwegian by two children, brother (age of onset of acquisition was 7 years) and sister (age of onset of acquisition was 11 years), is interesting because it scrutinises effects of age of acquisition on the morphosyntactic category of finiteness in Norwegian. The siblings were tested twice after 12 and 16 months exposure to Norwegian in a school setting by means of an acceptability judgment task (with focus on word order, V2 and finite marking on verb). Although it is difficult to conclude, Mosfjeld tentatively argues that her study reveals age-related differences in the acquisition of the domain of syntax.

In the international field of SLA, traditionally much effort has been put into identifying, describing and explaining *acquisitional sequences*. Particularly, this research is based on adult second language learners' syntactical acquisition in English, Dutch, German and Swedish. An example of this research is Processability Theory (as presented in Pienemann & Kessler 2012), which seeks to explain second language development and variation in syntax and morphology by determining developmental sequences in SLA samples (see Pienemann & Håkansson 1999, and Håkansson 2017, for a description of Swedish). Their results closely resemble the results from Larsen-Freeman and Long's study (2014) of adult L2 learners of English, as well as Abrahamsson's study (2009) of adult L2 learners of Swedish, which finds that the language learners go through roughly the same stages. In Norwegian SLA research, acquisitional sequences are attested in a study by Berggreen, Sørland & Alver (2012). In this study, written texts by L2 learners of Norwegian over three years (altogether 221 texts) are analysed and three levels of acquisition of the Norwegian syntax are identified: first a rigid SVX-structure, then SVO and finally the acquisition of noun phrases (Berggreen, Sørland & Alver 2012:102; see also Jensen 2018:239). However, these were adolescent learners, and the study only indirectly involved the acquisition of question syntax. Sequences in the domain of syntax are also attested on Norwegian monolingual L1 acqustion. The Norwegian LARSP study (Language Assessment Remediation and Screening Procedure) (Ribu et al. 2019) describes how typically developing monolingual children acquire different aspects of Norwegian grammar in seven stages. Their description demonstrates that such children are able to produce quite advanced syntactical constructions already at the age of three. With regard to *stage learning of questions*, there exists a sequence presented in Lightbown and Spada (2013) attested on children acquiring English as their first language (2013:10–12) and adults learning English as a second language (2013:49–51). Lightbown and Spada show six stages of the development of L2 acquisition of question syntax. The attested sequences described by Lightbown and Spada are the most relevant for our project, and will be further described in Section 4.

To summarise, there are studies of developmental stages in first and second language acquisition of syntax, but not much on questions. Much of what we know about acquisition of formal syntax is based on descriptions of adult language learners of a second language or of children

acquiring their first language. As we take a conceptual approach to questions, investigating the use of all utterances that function as questions, these descriptions are of interest, but not comparable to our data. An important exception is Lightbown and Spada (2013), which will be described further in the next section. Our aim is to study young children who acquire Norwegian as L2 with an early onset, and, as far as we are aware, the difference in syntactic development between early successive language learning and the language acquisition in monolinguals is an unexplored research area.

4. Data and method

In this section we first present the data and data collection procedures. Next, we describe the steps taken to identify utterances in the children's language that functioned as questions, and how we categorised them in ten question types.

4.1 Data collection

Our material is naturalistic oral production data collected during play in two kindergartens in a larger city in Norway: one kindergarten with a majority of multilingual children and one with a majority of monolingual children. Altogether, six multilingual and seven monolingual children participated in this particular study. The data is of a longitudinal nature, with three data collection points for most of the multilingual children and two for the monolingual children. Here, we present the speech of the six early successive learning children who participated at two or three data collection points. The material is compared with questions posed by children of the same age who are monolingual in Norwegian, and also with questions posed by monolingual Norwegian adults.

The children were presented with a set of toys and asked to play with them together with one or two friends. The children were filmed with a time gap of half a year or more between each recording, the first recording being conducted while the children were between three and four years old.

Table 1 presents an overview of the early successive learning children's age of onset for acquistion of Norwegian, their age at each data collection point and their language(s).[3] All the early successive learners began their acquisition of Norwegian when they started to attend kindergarten.

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3   The names of the children and their kindergartens are fictitious to preserve their anonymity.

Table 1. Early successive language learning children's names, languages and age at data collection points.

NAME	LANGUAGE(S)	AGE OF ONSET OF NORW.	DATA COLLECTION POINTS AND AGE		
			AGE AT 1ST	AGE AT 2ND	AGE AT 3RD
Frank[4]	Tagalog, Norwegian	2;4	3;1	3;8	
Arion	Somali, Norwegian	2;6	3;3	3;11	5;6
Hermela	Tigrinya, Norwegian	0;11	3;4	4;0	5;4
Nathan	Kurdish, Norwegian	2;4	3;4	4;0	5;11
Anna	Amharic, Tigrinya, Norwegian	0;11	3;9	4;5	5;9
Lana	Mende, Temne, Norwegian	2;1	4;0	4;8	6;0

In the analysis of the early successive learner's questions, we compare their question types and frequencies with questions used by monolingual children collected in the study. This monolingual group is presented in Table 2.

Table 2. Monolingual Norwegian children's names and age at data collection points.

NAME	DATA COLLECTION POINTS AND AGE	
	AGE AT 1ST	AGE AT 2ND
Olav	2;9	3;2
Helene	3;2	3;9
Synne	3;3	3;8
Monika	3;5	3;10
Håkon	3;5	3;10
Philip[5]	3;6	
Eirik	3;7	4;0

Thus, the children presented in this study can be categorised in two groups: The multilingual children are regarded as early successive learners of Norwegian. Although some of them, for instance Lana, acquire two languages simultaneously at home, Norwegian is an additional language the children acquire after their first language(s). The monolingual children, on the other hand, are only exposed to one language, Norwegian, which they acquire as a first language.

In order to gain a better understanding of what type of questions adult L1 speakers of Norwegian use in oral speech, and to avoid relying only on the written language target norm, we also

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4   We only have data from two recordings for Frank.
5   We met and recorded Philip's language only at the first data point.

compared the children's use of question types to adults' speech, directed both at children and at other adults. The data on questions adults posed to children is collected from video recordings of mealtime situations in the two kindergartens. Hence, these are questions formed by the adult caregivers to the children that participated in this study. Adults' questions to other adults were collected from a speech corpus, *Talebanken*[6] (Sandøy 2014), and these adults are not in any way connected to the children in this study. However, the adults in Talebanken speak the local dialect of the town the kindergarten children are growing up in, hence we argue that they form a reference group for adult speech patterns, dialect use and question formation in the local speech community.

4.2 Data analysis

The first step in the analyses was to identify the relevant unit of analysis, that is, utterances that functioned as questions. In accordance with a function-to-form approach, or conceptual approach, this was done based on pragmatic function of the utterance in the communication context, i.e. categorisation was not only based on sentence structure – also intonation and/or non-verbal signals in the video recordings (such as gestures, eye contact, and pauses) were taken into account when judging an utterance as a question or not. In the categorisation of the utterances, form was given more consideration. All questions were transcribed and checked by the authors. The questions used by adult caregivers in the kindergartens were transcribed in the same manner, while the data of the adults speaking to other adults were extracted from the transcribed speech corpus Talebanken.

We performed the following analyses of the transcribed data of the children's language use and in the two subsets of adult language use:

1. *Question type:* The utterances identified as questions in the child recordings were sorted into groups of questions with different syntactic properties. Our categorisation of the children's questions was not based on already defined formal categories of question types. Instead, the categorisation was empirically driven and aimed at describing the increasing complexity in the questions that the children produce during the period their language acquisition in Norwegian was tracked. In the categorisation of the utterances we identified as questions, the following were emphasised: the number of words (length), the presence or absence of verbs and subjects, finiteness of the verb, the order of the verb and subject, and degree of target language correspondence. The different question categories that this bottom-up approach resulted in are presented below (Table 3). The utterances identified as questions in the two subsets of adult language use were sorted into the same categories.

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6   Talebanken is a speech corpus of conversational interviews with informants from various Norwegian locations (Sandøy 2014). The corpus is available to researchers upon application: http://clarino.uib.no/korpuskel/ corpus-list?collection=Talebanken. The corpus was originally constructed for sociolinguistic research but is also suitable for other investigations of oral speech. The corpus is constructed as a random sample of 24 or more informants (divided in three age groups) from each of the selected speech communities. For the present study, we have selected the ten informants in the age group born 1950–1979 from the speech community the kindergartens are placed in.

2. *Token frequency*: Each child's and each adult's use of each type of question was grouped together and counted. For the monolingual and adult groups, the individual use of each type were used to calculate the absolute frequency of the question types at group level (presented in Section 5), while the early successive learners' use of questions was analysed individually.

4.3 Question types identified in the children's language use

The categorisation of the utterances identified as questions resulted in ten categories. These are presented and exemplified in Table 3. The categories are finely grained to be able to grasp fine differences between crib monolinguals and early successive learners. They do not represent a developmental trajectory in developing syntax, but cover a wide array of ways of asking questions. The questions are transcribed with Norwegian *bokmål* orthography on word level. The English translations/transliterations reflect the Norwegian syntax.

Table 3. Questions types identified in the oral recordings of the children.

QUESTION TYPE	DESCRIPTION	EXAMPLE
(1) One-word questions	Utterances with one word and question intonation. Nouns, pronouns (including question words), verbs, determiners (demonstratives and quantifiers), adjectives and adverbs.	*Boss?* 'Garbage?' *Den?* 'This?' *Tomt?* 'Empty'? *Etterpå?* 'After?'
(2) Verbless questions with question intonation	Verbless utterances with question in-tonation. Typically two or three words, but may also contain four words. One of the words in the string is always a noun or a determiner, and other ele-ments are a pronoun (never a question word), determiner (demonstrative, quantifier, possessive), adjective, adverb, preposition, or conjunction.	*Badelan min?* 'My beach ball?' *Ti sekund?* 'Ten seconds?' *De to bort?* 'Those two away?' *Etter de?* 'After they?'
(3) Questions with an initial non-inflected verb and without subject	Utterances with a non-inflected verb placed initially and without a subject. Two or three words (nouns, possessives, adverbs or a main verb besides the fronted verb), sometimes including a pragmatic article (i.e. da).	*Sove på sånn?* 'Sleep on that?' *Sitte på bil?* 'Sit on car?' *Ringe din mamma, då?* 'Call your mum, then?' *Ha dinosaur?* 'Have dino-saur?'
(4) Questions with an initial inflected verb and without subject	Questions without subjects as type (3), but with an inflected verb placed initially. They also contain more words than type 3, and never only two words.	*Kan få en jente?* 'May have a girl?'

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(5) Questions without subject-verb inversion and with question intonation	Questions with both a verb and a subject. The subject comes before the verb (sometimes inflected, sometimes not). 3 – 6 words where the words besides the noun and the verb, are either/or a pronoun, determiner, adverb, conjunction, or preposition.	*Jeg få bil?* 'I have a car?' *Du sa det?* 'You said it?' *Han kan sove?* 'He can sleep?' *Du har vondt?* 'You have pain?'
(6) Questions with subject-verb inversion	Utterances with subject-verb inversion. The utterances in this category consist of a great variety in terms of the number of words and phrases in the sentence as well as the presence or absence of subordination.	*Går det bra?* 'Does it go well?' *Kan jeg kjøre?* 'May I drive?' *Tok du ødelegget denne? 'Did you destroy this?'* *Skal han skifte bleie?* 'Shall he change diapers?'
(7) Questions with an initial adverb and subject-verb inversion	Utterances similar to those in category 6, but with a fronted adverbial phrase.	*Etterpå skal jeg komme her?* 'Afterwards shall I come here?'
(8) Wh –questions	Utterances with question words. The types of question words used are presented in the example sentences.	*Hvilken vil du ha?* 'Which do you want?' *Hvor er kaninene?* 'Where are the rabbits?' *Når kommer du tilbake?* 'When are you coming back?' *Hva er det, rockering?* 'What is that, hula hoop?' *Hvem er det som tok hesten min?* 'Who is it that took my horse?' *Hvordan visste du at det sto zoo?* 'How did you know it said zoo?'
(9) Tag questions	Utterances with declarative structure that contain the adverbial tag *sant* ('true') or *kanskje* ('maybe') placed initially or in the end of the utterance.	*Sant, dragen kunne vekke henne?* 'Right, the dragon could wake her up?' *Motorsykkel, kanskje?* 'Motorbike, maybe?' *Fordi hun har drager sant?* 'Because she has dragons, right?' *Da mangler vi denne, ikke sant?* 'Then this is missing, right?'
(10) Negative questions	All utterances with the negator *ikke/ikkje*. These sometimes deviate from the target language.	*Ikke den?* 'Not that?' *Kan eg ikke sitte der?* 'May I not sit there?' *Hvorfor leker ikke du?* 'Why are you not playing?' *Hvorfor åpner ikke denne korte?* 'Why doesn't this short open?'

Question type 1 is defined by the number of words and identified first and foremost based on intonation. These one-word questions also often function as attention-seeking, for instance, when using the name of the playmate. Types 2, 3 and 4 are similar to type 1 and differ from type 5 in that they lack an obligatory element, the verb (category 2) or the subject (category 3 and 4). Furthermore, the morphological form of the verb distinguishes type 3 from 4. We posit that it is important to distinguish between these two because the verb inflection is connected to finiteness: a central morphosyntactic feature of Norwegian that is crucial to the placement of verb elements in sentences (Hagen 2013; see also Section 3). Another reason for distinguishing between question types 3 and 4 is that the utterances differ in length: the utterances with non-inflected verbs are shorter than the utterances with an inflected verb. Question type 5 refers to questions with a subject and a finite verb, but these are different from type 6 because the subject is not placed behind the finite verb in type 5-questions and they are thus formed as Norwegian declarative sentences. The utterances in types 6–9 syntactically correspond to correctly formed questions in Norwegian (see below, and Section 3), although they may contain other lexical and morphological deviations. These question types differ in syntactical structure (see Table 3).

All the questions that have the negator *ikke* 'not' are gathered in a separate category (type 10). Negative questions are often analysed separately in the literature. Moreover, there is a lot of research on how the placement of negative particles in languages develop (see for instance, Abrahamsson 2009:66–68; Jensen 2018:250). The utterances in this category are of different kinds, they are not always in accordance with the target language, and they vary in length. The data from the adults show that constructions that are considered non-target like developmental features in formal syntax (see Section 3) are also used in oral adult language, hence these questions are considered target-like in our investigation. The adults were also found to use additional question types that were syntactically more complex than what was found in the child language data (mainly fragments, for instance *Sånn som vi gjorde oppe?* 'Like we did upstairs?'). Therefore a type 11 for these complex questions posed by adults was created. This type is not listed in the table.

These eleven question types have arisen out of a close inspection of the empirical data. They function as descriptive categories in the analysis of the data, and moreover, they capture a development of gradually more complex and target-like means of asking questions.

A comparison of our question types to Lightbown and Spada's (2013) developmental sequence of questions, might highlight this point. Lightbown and Spada report the following six stages:

1. One, two- or three word sentences with rising intonations + chunks
2. The word order of declarative sentences with rising intonation + chunks
3. Fronting
4. Subject-auxiliary inversion, like 3, but with more variety in the auxiliaries
5. Both *wh*-questions and yes/no-questions are formed correctly, but with overgeneralisations of inverted forms in *wh*-questions and embedded questions
6. Children are able to construct all kinds of questions, including negative and embedded questions.

The ten question types found in our investigation correspond to these six stages in the following way:

- Stage 1 is similar to our question types 1–4 (1: one word, 2: without verb, 3: with undeclined verb or 4: with declined verb)
- Stage 2 is similar to our type 5 (questions without inversion)
- Stage 3 is non-existent in our material[7]
- Stage 4 equals our question types 6 and 7 (6: with inversion, 7: with initial adverb and inversion)
- Stage 5 equals our question type 8 (*wh*-questions)
- Stage 6, where children are able to construct all kinds of questions, is similar to our question types 9 and 10 (9: tag questions, 10: negative questions).

As can be seen from this comparison, our types of questions might be interpreted as developmental stages. However, there is one exception: Our type 10 questions contain all questions with a negator, and therefore encompasses utterances of different complexity and with different degree of correspondences to target-like speech. It must also be pointed out that our categorisation does not capture all nuances in complexity. Particularly, it does not pay much attention to subordination. As will be shown in the next section, the children also use questions that belong to various stages at the same time, hence, they do not quit using the question types from one developmental stage when proceeding to the next.

5. Results

The individual early successive learners of Norwegian acquire the linguistic function of posing various question types as well as the grammatically correct forms, at different rates and in various patterns. We therefore begin this section with a brief outline of our survey of the *monolingual* Norwegian children's use of the various question types, as their patterns form a reference for the early successive language learner's development patterns. As children in kindergarten also gain much of their Norwegian linguistic input from adult language users, we also briefly outline which question types monolingual Norwegian adult kindergarten employees use when speaking to children, as well as Norwegian adults speaking to other adults, before turning to the early successive learner's individual acquisition patterns. Figure 1 gives an overview on group level of the various question types that the monolingual children use at two data points (see Appendix A for absolute token frequencies and number of individual users of each type).

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7   This is partly because of differences between Norwegian and English syntax (Norwegian does not have an equivalent to the auxiliary 'to do'), but also because the *wh*-questions are always followed by inverted verb/subject (whVSX) in our data material.

Figure 1. Average frequencies of question types, monolingual children at two data points.
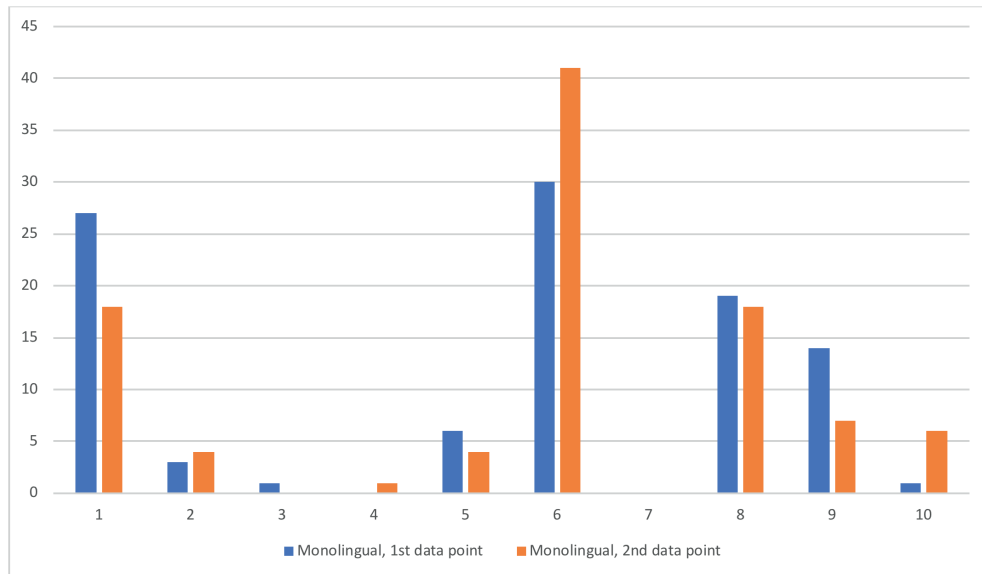
1 = One-word questions, 2 = Verbless questions, 3 = Initial non-inflected verb without subjects, 4 = Initial inflected verb without subjects, 5 = Subject and verb without inversion, 6 = Subject-verb inversion, 7 = Subject-verb inversion with adverbial fronting, 8 = *wh*-questions, 9 = Tag questions, 10 = Negative questions

On the group level, the monolingual children mostly use one-word questions (type 1), yes/no questions (type 6) and *wh*-questions (type 8) at the first and second data points. Using question types 6 and 8 is in line with what Lightbown and Spada term 'Stage 5', which is when *wh*-questions and yes/no questions are formed correctly. However, the absolute frequency of *wh*-questions is lower than the frequency of yes/no questions at both data points, and the number of children using *wh*-questions increases from data point 1 to 2. This might indicate that monolingual Norwegian children acquire yes/no questions shortly before *wh*-questions, which is also in line with Lightbown and Spada's model.

Lightbown and Spada also mention that children at Stage 5 might overgeneralise inverted forms in *wh*-questions. Our data does not give any examples of this, i.e. all *wh*-questions in our data have the correct word order. Notice also that the absolute frequency of negative questions (type 10) increase from first to second data point, and that the number of children using negative questions increases. This is in line with Lightbown and Spada's stages, where using negative questions is at the highest stage, 'Stage 6'.

The monolingual children use quite a lot of one-word questions (type 1) at both data points. According to Lightbown and Spada, these question types are the first types children acquire (Stage 1), and since the monolingual children in our investigation use question types at Stage

5 and 6, one could expect that question types belonging to the first stage were very infrequent. This is for instance the case with the use of declarative sentences with question intonation (type 5, Stage 2 in Lightbown and Spada's model) which is infrequent at the first data point and decreases to the second. A possible explanation for the ongoing use of one-word questions, is that the children find it useful. In the data, many of these questions are rapid attention-seeking or affirmation-seeking questions, that seem suitable for the communication situation the children are in (playing with a friend). As we shall see shortly, also adults use one-word questions quite often.

Figure 2 presents the relative distribution of the eleven question types among the two reference groups of adults: kindergarten staff speaking to children during mealtime and adults talking to adults (see Appendix B for absolute token frequencies and number of individual users of each type).

Figure 2 Average frequencies of question types, two groups of adults.
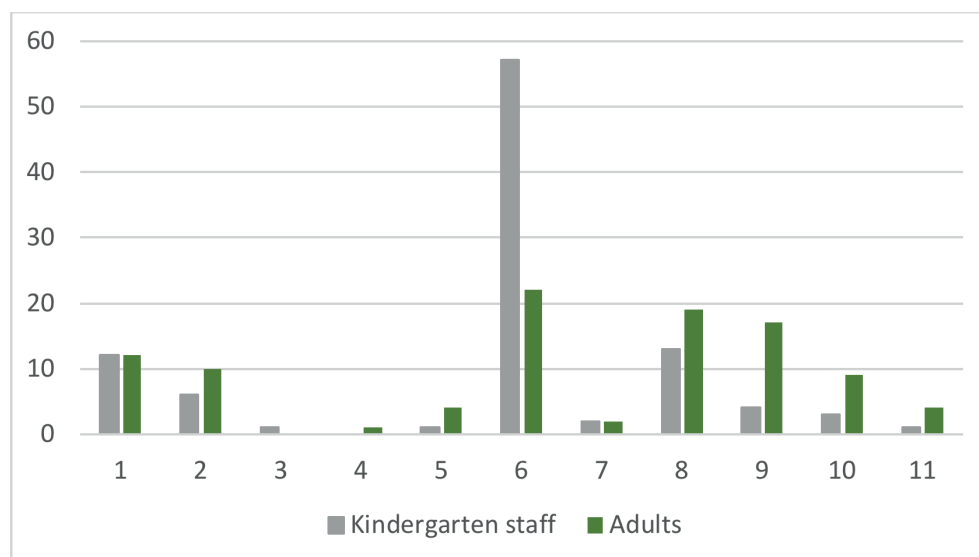
1 = One-word questions, 2 = Verbless questions, 3 = Initial non-inflected verb without subjects, 4 = Initial inflected verb without subjects, 5 = Subject and verb without inversion, 6 = Subject-verb inversion, 7 = Subject-verb inversion with adverbial fronting, 8 = *wh*-questions, 9 = Tag questions, 10 = Negative questions, 11 = Other complex questions

We see that the monolingual children's overall patterns of question types do not diverge greatly from the adults' patterns. Notable exceptions are tag questions (type 9), negative questions (type 10) and other complex questions (type 11). These question types are more frequently used by the two adult groups than by the monolingual children, who use these complex question

types very seldom or not at all at the first data point, and slowly increase the frequency (with the exception of type 11, which is not used by the children). Comparing our data to the model in six stages by Lightbown and Spada, it seems that their model also gives an adequate description of an increasing degree of complexity in Norwegian question types. Comparing our two adult subsets, we see that adults speaking to adults use more of the complex question types, while the adult kindergarden employees use less of these complex questions when they speak to children. The most important difference is seen in the frequency of type 6 questions (with subject-verb inversion). The adult caregivers in the kindergartens ask these yes/no questions far more often than adults speaking to peers do.

We now turn to the early successive language learning children. As their age and age of acquisition in Norwegian vary, the children's linguistic developments are presented individually (see also Appendix C for individual token frequencies).

Anna is the early successive learner in our investigation who has acquired Norwegian for the longest period. She started acquiring Norwegian as she entered kindergarten when she was 11 months. When we first met her, she was 3 years and 9 months old and had acquired Norwegian for 2 years and 10 months. She was 4 years and 5 months at the second data point and 5 years and 9 months at the third. Anna uses relatively few questions at the first and second data point (8 at 1st and 4 at 2nd), compared to the third data point (24 questions). However, the questions used at the first data point are quite complex: She uses both *wh*-questions (type 8) and questions with initial adverb and subject-verb inflection (type 7). This is in line with Lightbown and Spada's 'Stage 5'. At the first data point she also poses one question formed as a declarative sentence with question intonation (type 5). At the third data point the questions are even more complex as she uses tag questions (type 9) and negative questions (type 10). She also uses many different question words in *wh*-questions at the third data point. At this point, she has acquired questions at Lightbown and Spada's final 'Stage 6'.

Hermela has also acquired Norwegian from when she entered kindergarten at 11 months of age. At the first data point, she was 3 years and 4 months, hence she had acquired Norwegian for 2 years and 5 months. She was 4 years and 0 months at the second data point and 5 years and 4 months at the third. Hermela only poses five questions at the first data point, and these are one-word questions (type 1) and yes/no questions with subject inversion (type 6). Despite the correct subject inversion in the type 6 questions, the questions are not target-like and the meaning is only understood from the context of the utterance. At the second and third data point, Hermela poses many more questions (36 at 2nd and 24 at 3rd), and the questions are more complex, as she uses both *wh*-questions and tag questions. Hermela never uses negative questions in our recordings, but she uses some tag questions. This places her at Lightbown and Spada's 'Stage 5', possibly at the final 'Stage 6'. Besides the lack of negative questions, her frequency of question types at the second and third data point is quite similar to her monolingual peers, as well as adults, as she uses most yes/no questions (type 6) and *wh*-questions (type 8) but also quite a lot of one-word questions (type 1) and verbless questions with question intonation (type 2).

Lana is the eldest of the early successive learners in our data material. She is exactly 4 years old at first data collection point, 4 years and 8 months at the second, and 6 years and 0 months at the third data collection point. She has an age of onset of learning Norwegian at 2 years and

1 month, so she had only acquired Norwegian for 1 year and 11 months at the first data point. At that time, Lana asks 11 questions; 10 of which are *wh*-questions (type 8) and the last one is a one-word question. However, her *wh*-questions seem quite formulaic at this point, nine out of the ten consist of a one-syllable question word followed by the copula verb in present tense. This also applies for the second data point, but at the third data point her *wh*-questions are more varied both when it comes to which question word she uses, and which verb that follows the question word. At the second data point Lana also uses a tag question (type 9) and a negative question (type 10). Her questions place her at Lightbown and Spada's 'Stage 6'. At the second and third data point, Lana also uses quite many yes/no questions (type 6) and her mostly using yes/no questions (type 6) and *wh*-questions (type 8), makes her question use quite similar to that of her peers and adults as well.

Natan was 3 years and 4 months at the first data point, and he had started acquiring Norwegian when he started kindergarten at the age of 2 years and 4 months, i.e. he had acquired Norwegian for exactly one year at the first data point. He was 4 years and 0 months at the second data point and 5 years and 11 months at the third data point. At the first data point Natan uses relatively few questions (6), compared to the second (31 questions) and third data point (25 questions). At the first data point he uses three one word questions (type 1), one question with an initial non-inflected verb and without a subject (type 3), however, he also uses two yes/no questions (type 6), which all in all places him at 'Stage 4' in Lightbown and Spada's model. That is quite an accomplishment in only one year. At the second and third data point, he uses a wider variety of questions, including the more complex *wh*-questions and negative questions. These questions are formed syntactically correctly. However, he also uses quite a lot of questions with an non-target like syntax (types 3, 4 and 5). These questions are otherwise very seldom used in our data material. On the one hand, Nathan has acquired questions that are at Lightbown and Spada's final 'Stage 6', on the other hand, many of the questions he poses are not syntactically target-like. This shows that acquiring questions is not neccesarily a development from incorrect to correct forms. As Natan gradually asks more questions, he acquires a variety of question types, including some ways of asking questions that are non-target like.

Arion started kindergarden at 2 years and 6 months and was 3 years and 3 months at the first data point, i.e he had only acquired Norwegian for 9 months. At the second data point he was 3 years and 11 months and at the third he was 5 years and 6 months. Arion is shy and asks few questions in the playtime at all three data points (9 at 1st, 6 at 2nd and 2 at 3rd). It is therefore quite hard to interpret his development patterns. At the first and second data point, all of the questions he uses are yes/no questions (type 6). At the third data point he only asks two questions, one *wh*-question (type 8) and one tag question (type 9). This could imply that he had already reached Lightbown and Spada's 'Stage 4' after nine months (first data collection point), and their final 'Stage 6' at the third data point.

Frank had, similar to Arion, only acquired Norwegian for nine months when we met him at the first data point. He started acquiring Norwegian as he entered kindergarten when he was 2 years and 4 months, and was 3 years and 1 month at first data point. At the second data point he was 3 years and 8 months. (We unfortunately do not have a third data point from Frank.) At the first datapoint, Frank poses questions that are formed as declarative sentences (type 5), but also

yes/no questions with the target-like inversion of the verb/subject (type 6). He even uses some *wh*-questions (type 8), which places him at Stage 5 in Lightbown and Spada's model after only 9 months of acquiring Norwegian. However, it seems that these more complex questions are formulaic, as both yes/no questions (type 6) starts with *Kan eg* 'Can I' and most *wh*-questions (type 8) start with the same wordphrases (*Ka er det* 'What is it' and *Ka ser du* 'What do you see'). Frank also uses a negative question at the first data point, which is *Ikke den?* 'Not that?'. This question corresponds to the first level, external negation, in established sequences for the acquisition of placement of negators in L1 and L2 acquisition (e.g. Hyltenstam 1977:404; Slobin 1985:80 – 82). At the second data point, Frank still uses formulaic *wh*-questions. However, his frequencies of declarative sentences with question intonation (type 5) has declined, and instead he has started using questions with an initial non-inflected verb without subject (type 4). Since he also uses more varied constructions and different verbs in the yes/no questions (type 6), we interpret his increase in type 4 questions and decrease in type 5 questions as part of his development towards more well-formed yes/no questions, fronting the verb.

To sum up, the individual differences between the early successive learner's lingusitic development patterns are large. One reason for this is of course their different age of exposure to Norwegian. The children who has acquired Norwegian from a very young age (Hermela and Anna) seem to develop in similar lines as their monolingual peers, and have an age-adequate use of questions well before entering school. Lana also appears to have developed an age-adequate use of the various question types after four years, although she started acquiring Norwegian later than Anna and Hermela. Of all the children in our study, Nathan, Arion and Frank have acquired Norwegian for the shortest time. They do not seem to follow the stages proposed by Lightbown and Spada, as they use advanced question types as well as non-target like questions in the same recordings. Instead these three boys use formulaic question formation in the beginning, and then gradually use a variation of words in these question types, as well as expand their repertoire of question types. At the third data point 4 of the 6 early successive learners produce questions that belong to Stage 6 (Arion, Lana, Anna, Hermela) in Lightbown and Spada's model. These questions are also used by most of their monolingual peers (see Figure 1, Appendix A). Notice, however, that at the third data point the early successive learners are approximately two years older than the monolingual children were at their second data point. This implies that the early successive learners acquire the most complex questions at a later age than their monolingual friends. The early successive language learning children's individual developmental paths are perhaps most of all an illustration of how similar the monolingual children's developments are, while the early successive learner's various first languages and different ages of onset contribute to their different developmental paths.

Concluding remarks

We have presented the findings in an explorative study of the acquisition of questions in young learners of Norwegian, both crib monolinguals and early successive learners. Using a fine grained division of question types, we have identified the development of question types, and compared them with the stages identified in Lightbown and Spada (2013). As presented earlier,

our aim in this paper is twofold: (1) to study how multilingual children with early successive acquisition of Norwegian acquire various types of questions in Norwegian, and (2) contribute to the important theoretical debate on to what extent these children differ in their development from monolingual children of the same age who have been exposed to Norwegian from birth. The present study shows that 3–4 year-old children produce a wide range of different question types. The early successive learners acquire Norwegian question constructions in an impressive tempo, and throughout the period we track their development, they narrow the language competence gap between themselves and their monolingual peers. Still, we see that at this age, the early successive learning children lag behind monolingual children of the same age. Early successive learners start using the more complex questions (types 8–10) later than the monolingual Norwegian children, and the vast individual variation observed among them is a characteristic feature of second language acquisition. Even though many of the early successive learners in this study were very young at their starting point of acquiring Norwegian, they did start later than their monolingual friends who have acquired Norwegian from birth. This finding corroborates our previous case study (Gujord, Neteland & Selås 2018), documenting that early successive learners who start acquiring the L2 in kindergarten, lag behind their monolingual peers, at least for a period. Even though the children in the current study have been regularly exposed to Norwegian before age 3, and some even from 11 months, their development shares characteristics with the development described as typical for children in early second language settings (De Houwer 2020), that is, an initial phase with formulaic utterances and single words, and large scale individual variation. This observation implies that even minimally delayed age of onset results in delays in L2 acquisition. Even short delays of exposure to an additional language matter, at least for some years, and the cut-off point between simultaneous and successive bilingual development probably lies earlier than age 3–4, where the line traditionally has been drawn. Since these children, even with an early onset of acquisition of Norwegian, lag behind their monolingual peers linguistically, we believe that they should not be regarded as simultaneous bilingual children (following for instance Meisel 2011), but instead be considered successive bilingual children (following for instance De Houwer's distinction between successive and simultaneous bilingual development in early childhood, e.g., De Houwer 2020). We believe that these children should be regarded as early second language learners of Norwegian. However, to what extent the effects we observe are effects of age of onset or effects of combination of factors, is not clear: We do not know the degree of exposure to Norwegian these children have had, or the type and amount of language training they have received in kindergarten. In addition, as we only compare the successive bilingual learners to monolingual learners, we cannot be certain that what we observe is due to effects of a delay in language exposure, and not of bililingualism itself (e.g., Bylund et al. 2021).

To conclude, studies of early successive language learning in Norwegian and other L2s are important because they may uncover the effects of delayed age of onset during the first years of life. Research on early successive bilingualism may shed light on effects of delayed age of onset on language learning, and might have importance for practitioners in relevant fields, such as teachers and speech therapists. Whether, and to which extent early successive language learning represents a different acquisition process to L1 acquisition, is a question of high theoretical

interest, and studies like the current one, in which the language of early successive children and monolinguals are systematically compared, may help delineate the boundaries between first and second language acquisition in childhood in the future.

References

Abrahamsson, Niclas. 2009. *Andraspråksinlärning*. Lund: Studentlitteratur.

Ah-Young (Alicia) Kim, Anne Park & Barbara Lust. 2018. Simultaneous vs. successive bilingualism among preschool-aged children: a study of four-year-old Korean–English bilinguals in the USA. *International Journal of Bilingual Education and Bilingualism* 21(2). 164-178. DOI: 10.1080/13670050.2016.1145186

Barac, Raluca, Ellen Bialystok, Dina Castro & Marta Sanches. 2014. The cognitive development of young dual language learners: A critical review. *Early Child Research Quarterly* 29(4). 699–714.

Berggreen, Harald, Kjartan Sørland & Vigdis R. Alver. 2012. *God nok i norsk?: språk- og skriveutvikling hos elever med norsk som andrespråk*. Oslo: Cappelen Damm Akademisk.

Birdsong, David. 2018. Plasticity, variability and age in second language acquisition and bilingualism. *Frontiers in Psychology* 9, article 81, doi: https://dx.doi.org/10.3389%2Ffpsyg.2018.00081

Butler, Yuko G. 2013. Bilingualism/Multilingualism and second language acquisition. In Tej K. Bhatia & William C. Ritchie (eds.), *The Handbook of Bilingualism and Multilingualism*. 2nd edn. 109–136. Chichester: Wiley-Blackwell.

Bylund, Emmanuel, Kenneth Hyltenstam & Niclas Abrahamsson. 2021. Age of acquisition – not bilingualism – is the primary determinant of less than nativelike L2 ultimate attainment. *Bilingualism: Language and Cognition* 24(1). 18-30. https://doi.org/10.1017/S1366728920000188

Clahsen, Harald. 1982. *Spracherwerb in der Kindheit: Eine Untersuchung zur Entwicklung der Syntax bei Kleinkindern*. Tübingen: Narr.

De Houwer, Annick. 1995. Bilingual language acquisition. In Paul Fletcher & Brian MacWhinney (eds.), *The Handbook of Child Language*, 219–250. Oxford: Blackwell.

De Houwer, Annick. 2020. Early bilingualism. In Carol Chapelle (ed.), *The Concise Encyclopedia of Applied Linguistics*. Malden: Wiley Blackwell.

Faarlund, Jan Terje, Svein Lie & Kjell Ivar Vannebo. 1997. *Norsk referansegrammatikk*. Oslo: Universitetsforlaget.

Flores, Christina. 2010. The effect of age on language attrition: Evidence from bilingual returnees. *Bilingualism: Language and Cognition* 13(04), 533–546.

Genesee, Fred. 2006. Bilingual first language acquisition. In Peggy McCardle & Erika Hoff (eds.), *Childhood Bilingualism,* 45–67. Clevedon: Multilingual Matters.

Genesee, Fred. 2016. Introduction. In Fred Genesee & Audrey Delcenserie (eds.), *Starting Over – The Language Development in Internationally-Adopted Children*, 1–16. Amsterdam: John Benjamins.

Gujord, Ann Kristin Helland, Randi Neteland & Magnhild Selås. 2018. Framvekst av morfologi, syntaks og ordforråd i tidlig andrespråksutvikling – ein longitudinell kasusstudie. *NOA*

– *Norsk som andrespråk* 34(1–2), 93–127.

Hagen, Jon Erik. 2013 [2001]. Finittkategoriens kritiske karakter i norsk som andrespråk. In Marte Nordanger, Silje Ragnhildstveit & Aasne Vikøy (eds.), *Fra grammatikk til språkpolitikk. Utdrag fra Jon Erik Hagens forfatterskap*, 190–201. Oslo: Novus.

Hammer, Carol S., Erika Hoff, Yuuko Uchikoshi, Christina Gillanders, Dina Castro & Lia E. Sandilos. 2014. The language and literacy development of young dual learners: A critical review. *Early Childhood Research Quarterly* 29(4), 715–733.

Herschensohn, Julia. 2013. Age-related effects. In Julia Herschensohn, & Martha Young-Scholten (eds.), *The Cambridge Handbook of Second Language Acquisition,* 71–75. New York: Cambridge University Press.

Hoff, Erika, Cynthia Core, Siliva Place, Rosario Rumiche, Melissa Senõr & Marissol Parra. 2012. Dual language exposure and early bilingual development. *Journal of Child Language* 39(1), 2–27.

Hyltenstam, Kenneth. 1977. Implicational patterns in interlanguage syntax variation. *Language Learning* 27(2), 383–410.

Hyltenstam, Kenneth & Niclas Abrahamsson. 2000. Who can become native-like in a second language? All, some, or none? *Studia linguistica* 54(2), 150–166.

Hyltenstam, Kenneth & Niclas Abrahamsson. 2003. Maturational constraints in SLA. In Catherine J. Doughty & Michael Long (eds.), *Handbook of Second Language Acquisition,* 339–588. Malden, MA: Blackwell.

Håkansson, Gisela. 2017. Språkstörning–med utgångspunkt i grammatiska utvecklingsstadier. *Norsk Tidsskrift för Logopedi* 63(2), 22–28.

Jensen, Bård Uri. 2018. Syntaks i norsk innlærerspråk: empiriske funn. In Ann Kristin H. Gujord, & Gunhild Tveit Randen (eds.), *Norsk som andrespråk. Perspektiver på læring og utvikling*, 235–260. Oslo: Cappelen Damm Akademisk.

Jordens, Peter. 2012. *Language Acquisition and the Functional Category System*. Berlin: Mouton de Gruyter.

Kirk, Karen Iler, Elizabeth Ying, Richard T. Miyamoto, Tara O'Neill, Cara L. Lento & Beverly Fears. 2002. Effects of age at implantation in young children. *Annals of Otology, Rhinology & Laryngology*, 111(5), 69–73.

Kulbrandstad, Lars Anders & Torodd Kinn. 2016. *Språkets mønstre*. Oslo: Universitetsforlaget.

Larsen-Freeman, Diane, & Michael H. Long. 2014. *An Introduction to Second Language Acquisition Research*. Oxon/New York: Routledge.

Lie, Svein. 1992. Ka du sei? *Maal og minne*, 1992(1), 62–77.

Lightbown, Patsy & Nina Spada. 2013. *How Languages Are Learned*. Oxford: Oxford University Press.

McLaughlin, Barry. 1987. *Theories of Second Language Learning*. London: Edward Arnold.

Meisel, Jürgen M. 2006. The bilingual child. In Taj Bhatia & William Ritchie (eds.). *The Handbook of Bilingualism*. Oxford: Blackwell Publishing Ltd, 91–113.

Meisel, Jürgen M. 2011. *First and second language. Parallels and differences*. New York: Cambridge University Press.

Meisel, Jürgen M. 2017. Bilingual acquisition. A morphosyntactic perspective on simultaneous and early successive language development. In Eva M. Fernández & Helen Smith Cairns, *The Handbook of Psycholinguistics*, 635–652. Oxford: Wiley Blackwell.

Mosfjeld, Inger Martine. 2017. Startalder og andrespråkstilegnelse av finitthet. *NOA – Norsk som andrespråk* 33(2), 65–87.

Nicholas, Johanna Grant & Ann E. Geers. 2007. Will they catch up? The role of age at cochlear implantation in the spoken language development of children with severe-profound hearing loss. *Journal of Speech, Language, and Hearing Research* 50(4), 1048–1062.

Nistov, Ingvild. 1999. Zero anaphora in Turkish learner's Norwegian L2 narratives. In Bernt Brendemoen, Elizabeth Lanza & Else Ryen (eds.), *Language Encounters Across Time and Space*, 149–178. Oslo: Novus.

Normann, Gunnar, Kenneth Hyltenstam & Emmanuel Bylund. 2016. Long-term language development in international adoptees. In Fred Genesee & Audrey Delcenserie (eds.), *Starting Over – The Language Development in Internationally-Adopted Children*, 125–146. Amsterdam/Philadelphia: John Benjamins.

Næss, Åshild. 2011. *Global grammatikk: språktypologi for språklærere*. Oslo: Gyldendal.

OECD (2019), *PISA 2018 Results (Volume II): Where All Students Can Succeed*. Paris: PISA, OECD Publishing.

Oliver, Rhonda & Agurtzane Azkarai. 2017. Review of Child Second Language Acquisition (SLA): Examining theories and research. *Annual Review of Applied Linguistics*, 37, 62–76.

Paradis, Johanne. 2007. Second language acquisition in childhood. In Erika Hoff & Marilyn Shatz (eds.), *The Blackwell Handbook of Language Development*, 386–405. Oxford: Blackwell Publishing Ltd.

Pienemann, Manfred & Gisela Håkansson. 1999. A unified approach toward the development of Swedish as L2: A processability account. *Studies in Second Language Acquisition* 21(3), 383–420.

Pienemann, Manfred & Jorg-U. Kessler. 2012. Processability theory. In Susan M. Gass, & Alison Mackey (eds.), *The Routledge Handbook of Second Language Acquisition,* 228–247. Oxon/New York: Routledge.

Ribu, Ingeborg Sophie, Hanne Gram Simonsen, Morten Aase Løver, Bror-Magnus S. Strand & Kristian Emil Kristoffersen. 2019. N-LARSP: A developmental language profile for Norwegian. In Martin J. Ball, Paul Fletcher & David Crystal (eds.), *Grammatical Profiles: Further Languages of LARSP, 1–28*. Bristol: Multilingual Matters.

Sandøy, Helge. 2014. *Talebanken ved LLE, UiB. Ei orientering*. https://folk.uib.no/hnohs/DEP/Om_TB.pdf (accessed 17 March 2020).

Schjetne, Nina. 2020. *Spor av språkbrudd: En studie av internasjonalt adopterte barns språkferdigheter på 5. trinn*. Ph.D. thesis, University of Bergen.

Schulz, Petra & Angela Grimm. 2019. The age factor revisited: Timing in acquisition interacts with age of onset in bilingual acquisition. *Frontiers in Psychology*. https://doi.org/10.3389/fpsyg.2018.02732

Slobin, Dan Isaac. 1985. *The Crosslingustic Study of Language Acquisition: Volume 1, The Data*. Hillsdale, New Jersey: Lawrence Erlbaum Associates.

Talebanken. [2020]. *Dialektendringsprosessar* (Online speech corpus). http://clarino.uib.no/korpuskel/corpus-list?collection=Talebanken, accessed 17 March 2020.

Tabors, Patton. 1997. *One Child, Two Languages*. Baltimore: Brookes.

Unsworth, Sharon. 2009. First and second language development from a UG perspective. In Kees de Bot & Robert W. Schrauf (eds.), *Language Development over the Lifespan*, 19–39. New York/Oxon: Routledge.

Unsworth, Sharon. 2013. Assessing age of onset effects in (early) child L2 acquisition. *Language Acquisition,* 20, 74-92. http://dx.doi.org/10.1080/10489223.2013.766739

Waldmann, Christian. 2008. *Input och output: Ordföljd i svenska barns huvudsatser och bisatser.* Ph.D. thesis, Lund University.

Westergaard, Marit. 2003. Word order in wh-questions in a North Norwegian dialect: Some evidence from an acquisition study. *Nordic Journal of Linguistics* 26(1), 81–109.

Westergaard, Marit. 2009. *The Acquisition of Word Order: Micro Cues, Information Structure,* and Economy. Philadelphia, PA: John Benjamins.

Yip, Virginia 2013. Simultaneous language acquisition. In Francois Grosjean & I. Ping *The Psycholinguistics of Bilingualism*, 119–136. Malden: Wiley-Blackwell.

Appendixes

APPENDIX A: DISTRIBUTION OF QUESTION TYPES, MONOLINGUAL CHILDREN AT TWO DATA POINTS.

Question type	MONOLINGUAL CHILDREN, FIRST DATA POINT, N=7			MONOLINGUAL CHILDREN, SECOND DATA POINT, N=6		
	%	Abs. freq.	n	%	Abs. freq.	n
(1) One-word questions	27 %	41	5	18 %	21	5
(2) Verbless questions with question intonation	3 %	4	2	4 %	4	4
(3) Questions with an initial non-inflected verb and without subject	1 %	1	1	-	-	-
(4) Questions with an initial inflected verb and without subject	-	-	-	1 %	1	1
(5) Questions without subject-verb inversion and with question intonation	6 %	9	4	4 %	5	2
(6) Questions with subject-verb inversion	30 %	45	7	41 %	47	4
(7) Questions with an initial adverb and subject-verb inversion	-	-	-	-	-	-
(8) *Wh*-questions	19 %	29	4	18 %	21	6
(9) Tag questions	14 %	22	4	7 %	8	4
(10) Negative questions	1 %	1	1	6 %	7	3
Total		152			114	

N=total number of individuals in the group, %=percentage scores of absolute frequencies, Abs. freq.= absolute token frequency, i.e. total number of questions of this type, n=number of individuals using the question type, - = no tokens of this question type.

APPENDIX B: DISTRIBUTION OF QUESTION TYPES, TWO GROUPS OF ADULTS.

QUESTION TYPE	KINDERGARTEN STAFF, N=6			ADULTS, N=10		
	%	ABS. FREQ.	N	%	ABS. FREQ.	N
(1) One-word questions	12 %	38	5	12 %	49	9
(2) Verbless questions with question intonation	6 %	19	5	10 %	40	9
(3) Questions with an initial non-inflected verb and without subject	1 %	4	3	0 %	1	1
(4) Questions with an initial inflected verb and without subject	-	-	-	1 %	5	4
(5) Questions without subject-verb inversion and with question intonation	1 %	3	3	4 %	16	8
(6) Questions with subject-verb inversion	57 %	175	6	22 %	86	10
(7) Questions with an initial adverb and subject-verb inversion	2 %	6	4	2 %	6	4
(8) *Wh*-questions	13 %	41	5	19 %	75	10
(9) Tag questions	4 %	12	3	17 %	65	10
(10) Negative questions	3 %	9	3	9 %	37	8
(11) Other complex questions	1 %	2	2	4 %	15	5
Total		309			395	

Q.type = Question type, N=total number of individuals in the group, %=percentage scores of absolute frequencies, Abs. freq.=absolute token frequency, i.e. total number of questions of this type, n=number of individuals using the question type. - = no tokens of this question type.

APPENDIX C: DISTRIBUTION OF QUESTION TYPES FOR EACH MULTILINGUAL CHILD, AT TWO/THREE DATA POINTS.

APPENDIX C.1: ANNA, AoA FROM 0,11 YEARS.

QUESTION TYPE	FIRST DATA POINT, 3,9 YEARS	SECOND DATA POINT, 4,5 YEARS	THIRD DATA POINT, 5,9 YEARS
(1) One-word questions	n=2	n=2	
(2) Verbless questions with question intonation			n=1
(3) Questions with an initial non-inflected verb and without subject			
(4) Questions with an initial inflected verb and without subject			
(5) Questions without subject-verb inversion and with question intonation	n=1		
(6) Questions with subject-verb inversion		n=2	n=7
(7) Questions with an initial adverb and subject-verb inversion	n=2		
(8) *Wh*-questions	n=3		n=13
(9) Tag questions			n=1
(10) Negative questions			n=2
Total	N=8	N=4	N=24

AoA=age of acquisition, i.e. age when the child started acquiring Norwegian. Age is given in the form X,Y: X=years, Y=months. n=number of the question type. N= total number of questions at this data point. Blank space = no tokens of this question type.

APPENDIX C.2: HERMELA, AOA FROM 0,11 YEARS.

QUESTION TYPE	FIRST DATA POINT, 3,4 YEARS	SECOND DATA POINT, 4,0 YEARS	THIRD DATA POINT, 5,4 YEARS
(1) One-word questions	n=2	n=1	n=2
(2) Verbless questions with question intonation		n=2	n=1
(3) Questions with an initial non-inflected verb and without subject			
(4) Questions with an initial inflected verb and without subject			
(5) Questions without subject-verb inversion and with question intonation		n=1	
(6) Questions with subject-verb inversion	n=3	n=17	n=14
(7) Questions with an initial adverb and subject-verb inversion			
(8) *Wh*-questions		n=13	n=11
(9) Tag questions		n=2	
(10) Negative questions			
Total	N=5	N=36	N=28

AoA=age of acquisition, i.e. age when the child started acquiring Norwegian. Age is given in the form X,Y: X=years, Y=months. n=number of the question type. N= total number of questions at this data point. Blank space = no tokens of this question type.

APPENDIX C.3: LANA, AOA FROM 2,1 YEARS.

QUESTION TYPE	FIRST DATA POINT, 4,0 YEARS	SECOND DATAPOINT, 4,8 YEARS	THIRD DATA POINT, 6,0 YEARS
(1) One-word questions	n=1	n=6	n=1
(2) Verbless questions with question intonation			n=1
(3) Questions with an initial non-inflected verb and without subject			
(4) Questions with an initial inflected verb and without subject			
(5) Questions without subject-verb inversion and with question intonation			
(6) Questions with subject-verb inversion		n=10	n=13
(7) Questions with an initial adverb and subject-verb inversion			
(8) *Wh*-questions	n=10	n=3	n=11
(9) Tag questions		n=1	
(10) Negative questions		n=1	
Total	N=11	N=21	N=26

AoA=age of acquisition, i.e. age when the child started acquiring Norwegian. Age is given in the form X,Y: X=years, Y=months. n=number of the question type. N= total number of questions at this data point. Blank space = no tokens of this question type.

APPENDIX C.4: NATAN, AOA FROM 2,4 YEARS.

QUESTION TYPE	FIRST DATA POINT, 3,4 YEARS	SECOND DATA POINT, 4,0 YEARS	THIRD DATA POINT, 5,11 YEARS
(1) One-word questions	n=3	n=2	n=3
(2) Verbless questions with question intonation		n=4	
(3) Questions with an initial non-inflected verb and without subject	n=1	n=5	n=2
(4) Questions with an initial inflected verb and without subject			n=3
(5) Questions without subject-verb inversion and with question intonation		n=1	n=3
(6) Questions with subject-verb inversion	n=2	n=10	n=9
(7) Questions with an initial adverb and subject-verb inversion			
(8) *Wh*-questions		n=8	n=4
(9) Tag questions			
(10) Negative questions		n=1	n=1
Total	N=6	N=31	N=25

AoA=age of acquisition, i.e. age when the child started acquiring Norwegian. Age is given in the form X,Y: X=years, Y=months. n=number of the question type. N= total number of questions at this data point. Blank space = no tokens of this question type.

APPENDIX C.5: ARION, AOA FROM 2,6 YEARS

QUESTION TYPE	FIRST DATA POINT, 3,3 YEARS	SECOND DATA POINT, 3,11 YEARS	THIRD DATA POINT, 5,6 YEARS
(1) One-word questions			
(2) Verbless questions with question intonation			
(3) Questions with an initial non-inflected verb and without subject			
(4) Questions with an initial inflected verb and without subject			
(5) Questions without subject-verb inversion and with question intonation			
(6) Questions with subject-verb inversion	n=9	n=6	
(7) Questions with an initial adverb and subject-verb inversion			
(8) *Wh*-questions			n=1
(9) Tag questions			n=1
(10) Negative questions			
Total	N=9	N=6	N=2

AoA=age of acquisition, i.e. age when the child started acquiring Norwegian. Age is given in the form X,Y: X=years, Y=months. n=number of the question type. N= total number of questions at this data point. Blank space = no tokens of this question type.

APPENDIX C.6: FRANK, AOA FROM 2,4 YEARS.

QUESTION TYPE	FIRST DATA POINT, 3,1 YEARS	SECOND DATA POINT, 3,8 YEARS
(1) One-word questions	n=6	
(2) Verbless questions with question intonation	n=1	
(3) Questions with an initial non-inflected verb and without subject		n=3
(4) Questions with an initial inflected verb and without subject		
(5) Questions without subject-verb inversion and with question intonation	n=5	n=1
(6) Questions with subject-verb inversion	n=2	n=5
(7) Questions with an initial adverb and subject-verb inversion		
(8) *Wh*-questions	n=6	n=6
(9) Tag questions		
(10) Negative questions	n=1	
Total	N=21	N=15

AoA=age of acquisition, i.e. age when the child started acquiring Norwegian. Age is given in the form X,Y: X=years, Y=months. n=number of the question type. N= total number of questions at this data point. Blank space = no tokens of this question type.