

The Acquisition of Adjective Phrases in Welsh: the Children's Language

Bob Morris Jones

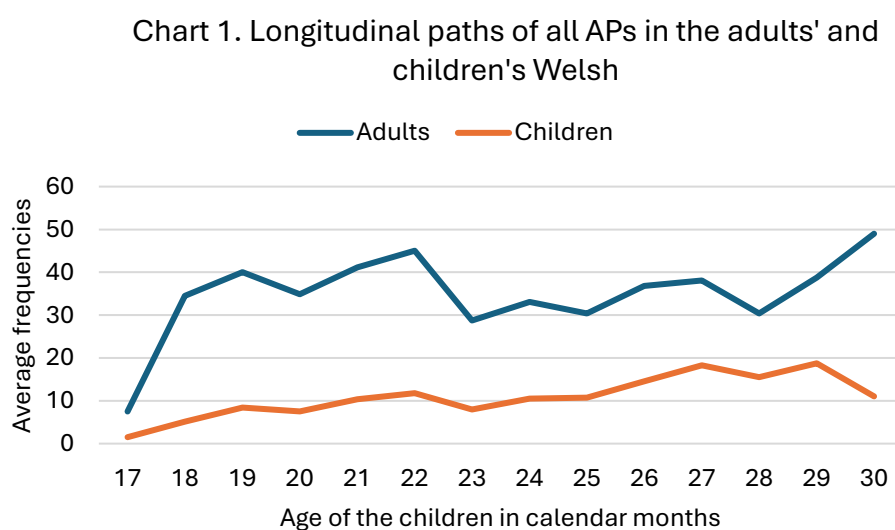
bmj@aber.ac.uk

This study is the second part of an account of the adjective phrases which occur in the Welsh of children who are acquiring the language as a first language. This part looks at the Welsh of the children. The first part which looks at the input language of adults who interact with the children is available at https://users.aber.ac.uk/bmj/Ymchwil/ymadroddion_ansoddeiriau.pdf.

1 The overall picture

We can achieve an overall picture of the stages of acquisition by first providing details about all adjective phrases and then looking at the three major types of adjective phrases, namely, bare adjective phrases (unmodified and lacking a complement), modified adjective phrases and adjective phrases which contain a complement (complemented adjective phrases for short).

Chart 1 gives the longitudinal paths of all adjective phrases in the Welsh of the adults and the children over the span of the project.



The chart shows that the input language of the adults provides examples of adjective phrases of some sort over the life of the project. The chart also shows that an adjective phrase of some sort is in the

Welsh of the children by 17 months. Counts of the proportions of speakers in each age group (not in the chart) also show that all the adults and the children who were in the project in each age group used an adjective phrase of some sort. These two points provide grounds which show that by this age (17 months) children have acquired an adjective phrase of some sort. The longitudinal path of the acquisition of adjective phrases in chart 1 bears comparison with the observations in Tribushinina (2018: 260) that adjectives occasionally appear in young children's language in their second year but that it is not until age 1;8 that the pace of acquisition increases.

The charts which follow give details about the sorts of adjective phrases which occur, namely, bare adjective phrases, modified adjective phrases and complemented adjective phrases.

Bare adjective phrases in the children's Welsh as illustrated by the examples in (1).

- 1 a. *ci bach*.
dog little
'a little dog.'
- b. *yn2 dynn*.
PRED tight
'tight.'
- c. *glas*.
'blue.'

Chart 2 shows that, in the adults' Welsh, bare adjective phrases are by far the most frequent over the life of the project.

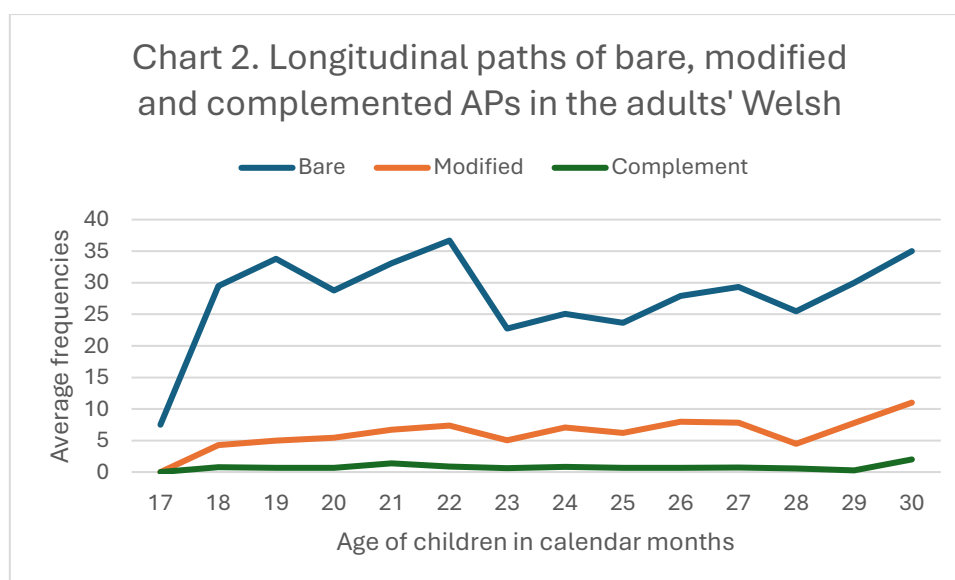
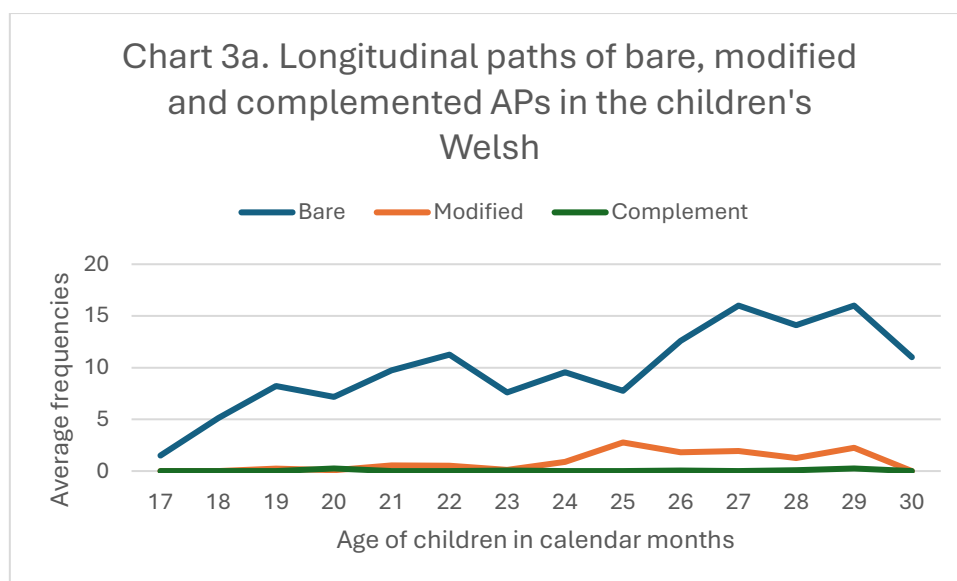


Chart 3a shows that, in the children's Welsh, bare phrases are also the most frequent by far.



Counts of users in each age group (not given in the graphs) show that bare adjective phrases are used unanimously over the span of the project by the children and can be said to have been firmly acquired.

The more detailed view of the children's Welsh which is given in chart 3b shows that modified adjective phrases appear at 19 months, which is after the emergence of bare adjective phrases.

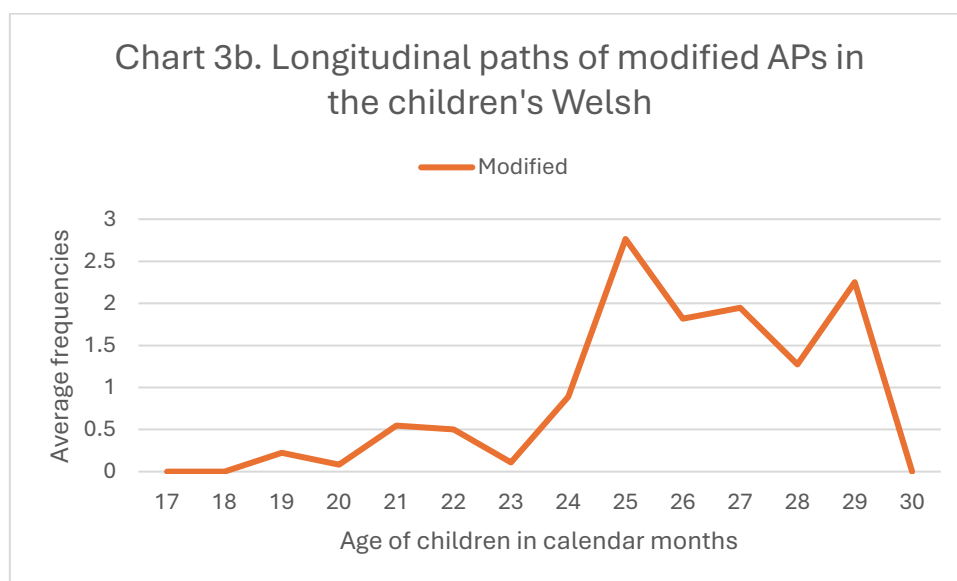


Chart 4 shows the proportions of speakers amongst the adults and the children who use modified adjective phrases.

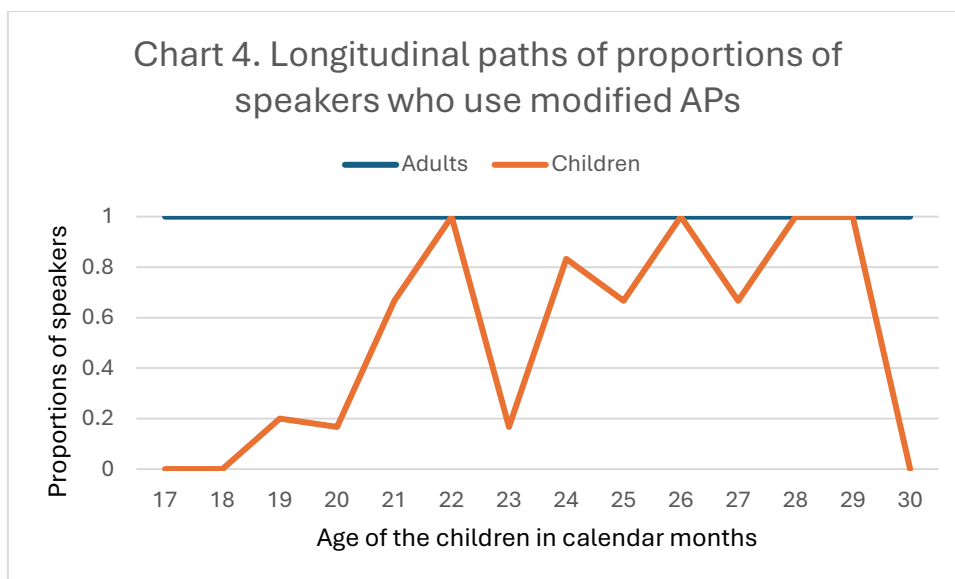
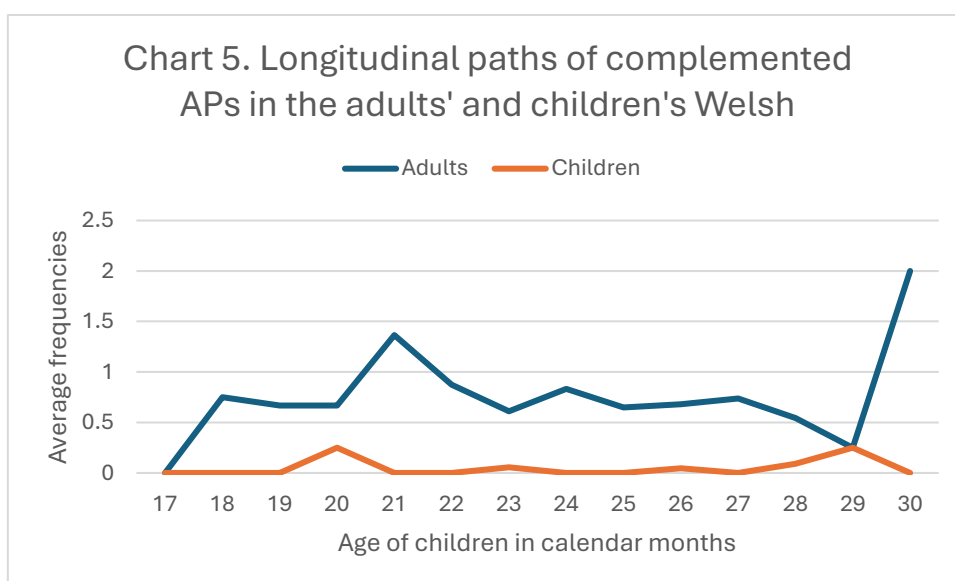


Chart 4 shows that the input language provided by the adults unanimously contains examples of modified adjective phrases in each age group. As chart 4 shows, it is not until 20 months onwards that we see an increase in the proportions of children who use modification such that towards the end of the project unanimous use is being sporadically achieved. Overall, there are grounds for claiming that the acquisition of the modification of adjective phrases can occur at 19 months but does not unanimously occur until the 22nd month and proportions of child users varies then until the end of the project. There is some evidence that the acquisition of modified adjective phrases is achieved from 19 months onwards.

Matters are different in respect of complements in adjective phrases both in the input language and the children's Welsh. Chart 5 shows that they occur infrequently in the adults' Welsh and barely occur at all in the children's Welsh during the span of the project.



This chart shows that very small numbers of complemented adjective phrases occur sporadically at 20 months, 23 months, 26 months and 29 months.

Further the proportions of adult speakers in each age group is much lower than the proportions of speakers in the two other types of adjective phrases. Chart 6a allows comparisons of the three types of adjective phrases in the adults' Welsh: bare phrases are unanimous, modified phrases are almost unanimous but adjective phrases with complements do not approach unanimity until the 24th month and even afterwards the proportions dip below unanimity in most age groups.

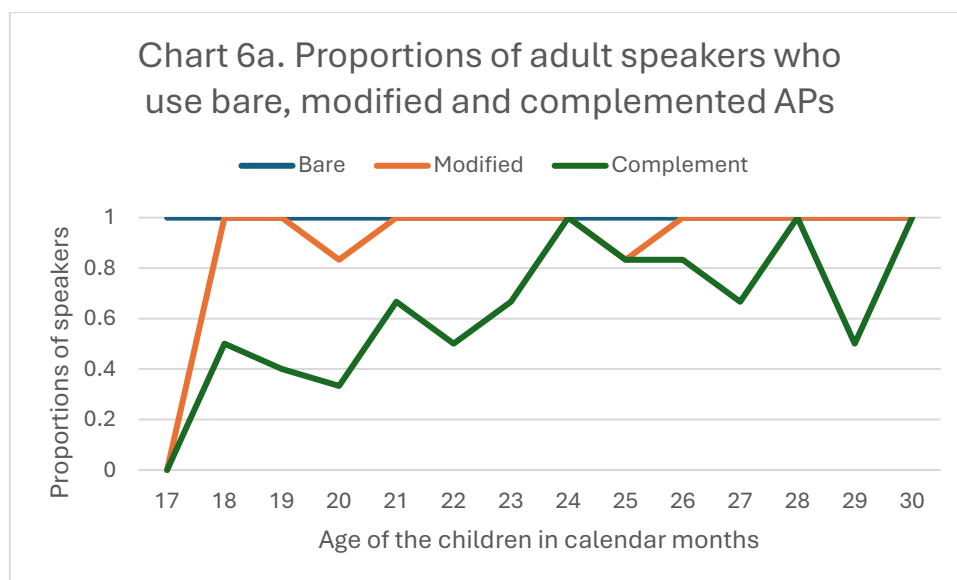
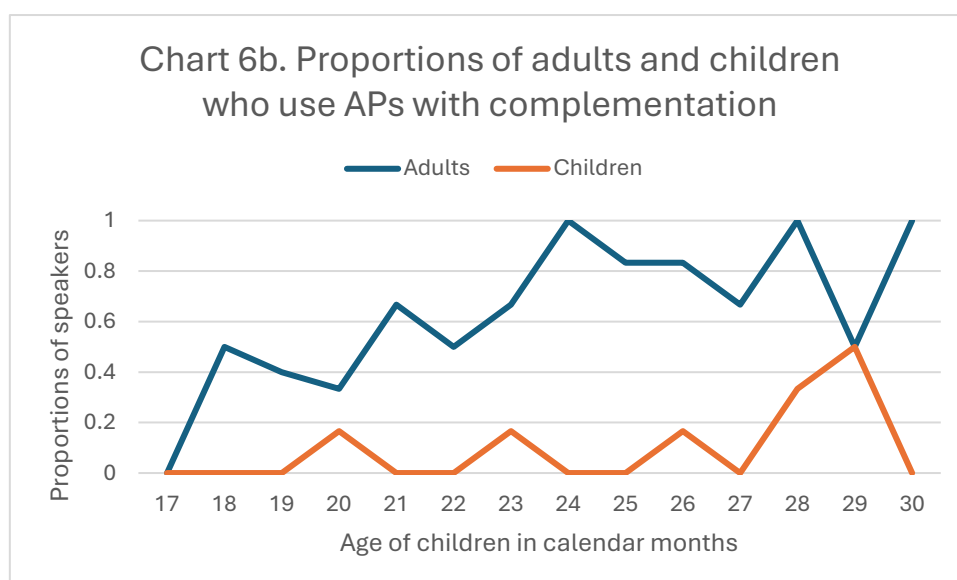


Chart 6b repeats the proportions of adults who use APs with complements and also gives those for the children for comparison.



Not only are complemented adjective phrases very infrequent in the children's Welsh but the proportions of children who use them are small: there are only three child speakers over the life of the

project. On these bases, there is little evidence to claim that the syntax of complementation has been acquired by the children.

2 More about modification

Table 1 provides the frequencies of the sorts of modification which occur in the Welsh of the children (the frequencies for adult Welsh are repeated here for convenience of comparison).

Table 1. Frequencies of methods of modification in the children's (and adults') Welsh

	Adults	Children
Unmodified	4719	1743
Degree words	511	52
Equative, comparative, superlative	392	41
Reduplication	94	58
Adjectives as modifiers	38	31
Quantifiers	25	0
Noun modifiers	5	0
Prepositional patterns 1	4	0
Prepositional patterns 2	3	0
Other methods	2	0
	1074	182
	5793	1925

Table 1 shows that four methods of modification occur overall during the span of the project but other methods which are found in the adults' Welsh do not occur in the Children's Welsh. We shall see shortly that one method which does occur, namely, modifiers which are adjectives, are almost entirely confined to one child.

Chart 7 shows the longitudinal paths of the methods of modification in the children's Welsh.

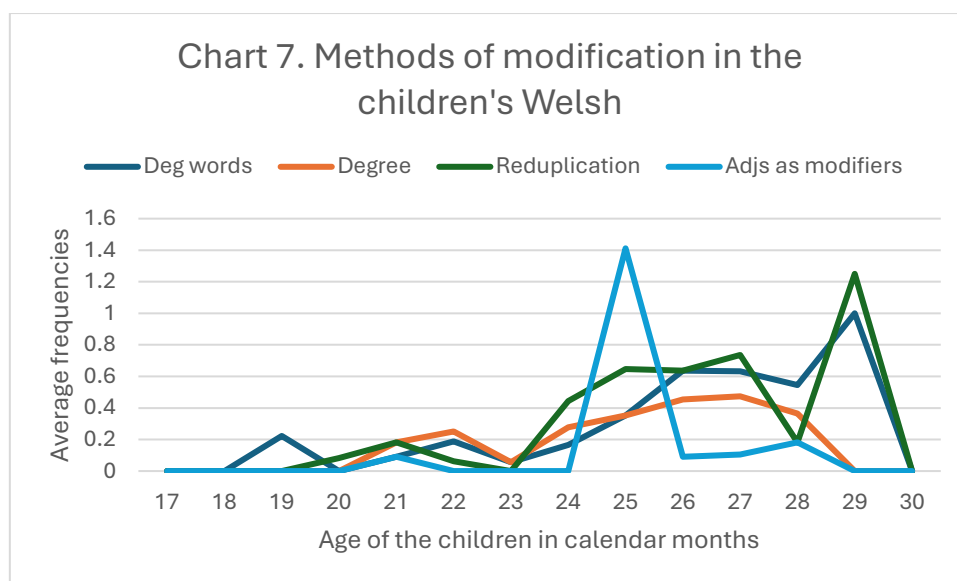


Table 1 shows that there is a total of 182 examples of some method of modification in the Welsh of the children. Although this table shows that reduplication is the most frequent method in total (accounting for 31.87% of the total of modified adjectives whereas in the adults' Welsh it is 8.75%), it is a degree word which occurs first in the Welsh of the children at 19 months. But it is from 23 months onwards that the use of forms of modification increases. We discuss the spike in the use of an adjective as a modifier (which, over the life of the project, is infrequent) in section 2.1.3.

2.1.1 Degree

Table 2 gives the total frequencies of degree adjectives over the span of the project. As mentioned in the account of the adults' Welsh, in contrasting the positive degree with the three other degrees, only those adjectives which are not modified or which are themselves not modifiers can enter into such contrasts for the purpose of frequency counts.

Table 2. Frequencies of the positive, equative, comparative and superlative degrees

		Adults	Children
Positive		4719	1743
Equative	inflected	1	0
	not inflected	2	0
		3	0
Comparative	inflected	170	25
	periphrastic	5	0
		175	25
Superlative	inflected	221	16
	periphrastic	0	0
		221	16
		5118	1784

There are no examples of the equative degree in the children's Welsh. There are only three in the adults' Welsh. There are no examples of two-part comparative phrases, there are only five in the language of the adults. There are no periphrastic expressions; all the examples contain inflected forms of the comparative and superlative.

Table 2 shows that, in the language of the children as in the language of the adults, the positive degree is by far the dominant degree, accounting for 97.70% of all examples of adjectives which are open to degree contrasts in the children's Welsh. Unlike the language of the adults, the comparative degree is the next most common but accounts for only 1.40%. The superlative degree accounts for 0.90%.

Chart 8a gives the details of the longitudinal paths of degree adjectives in the Welsh of the adults and the children, and chart 8b gives a more detailed view children's Welsh. Chart 9 gives the proportions of speakers in each age group who use a degree adjective. This latter chart shows that not all adult speakers in each age group uses a degree adjective until the 21st month and that it is from this month the proportions of children using degree adjectives begins to increase — a point worth noting. But chart 9 shows that unanimous use by all children in each age group is not achieved during the life of the project.

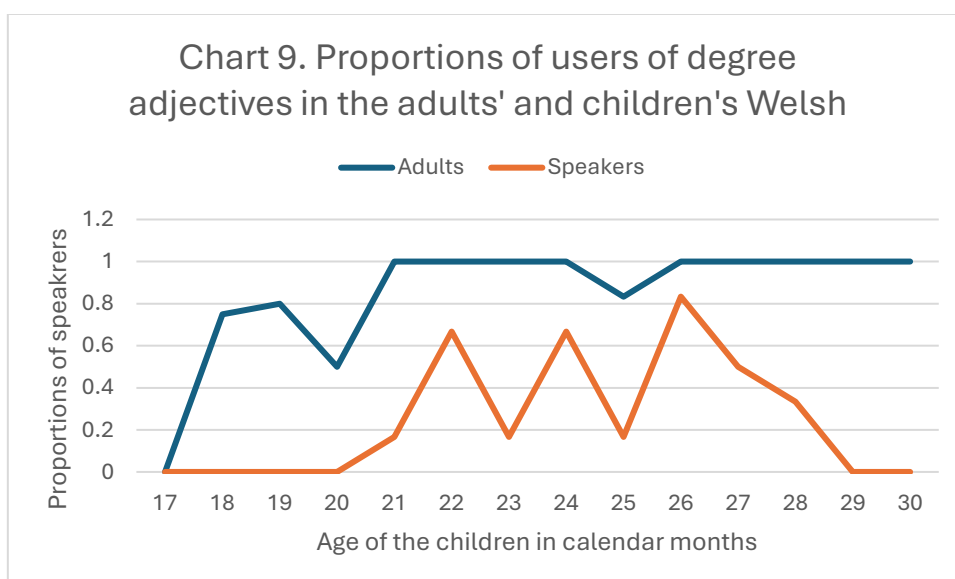
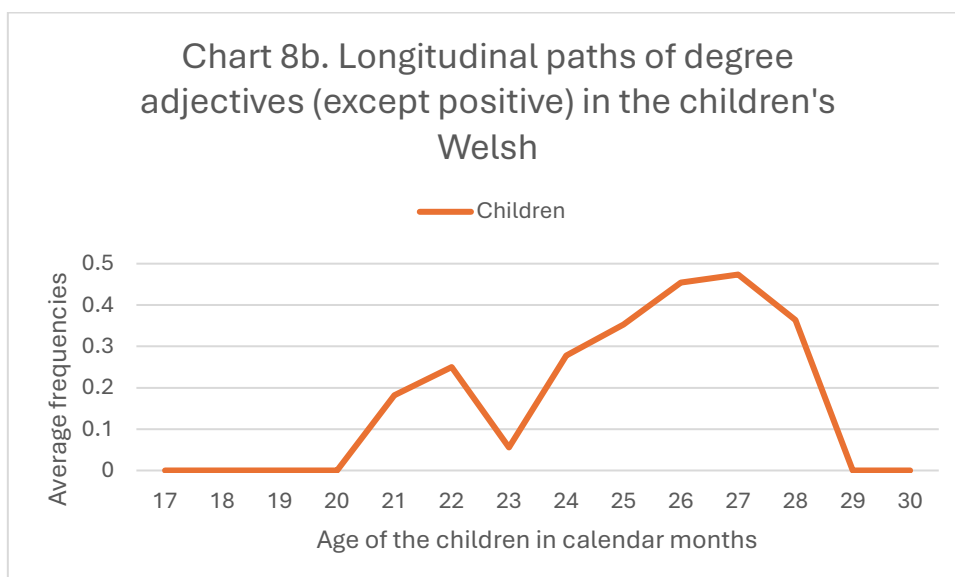
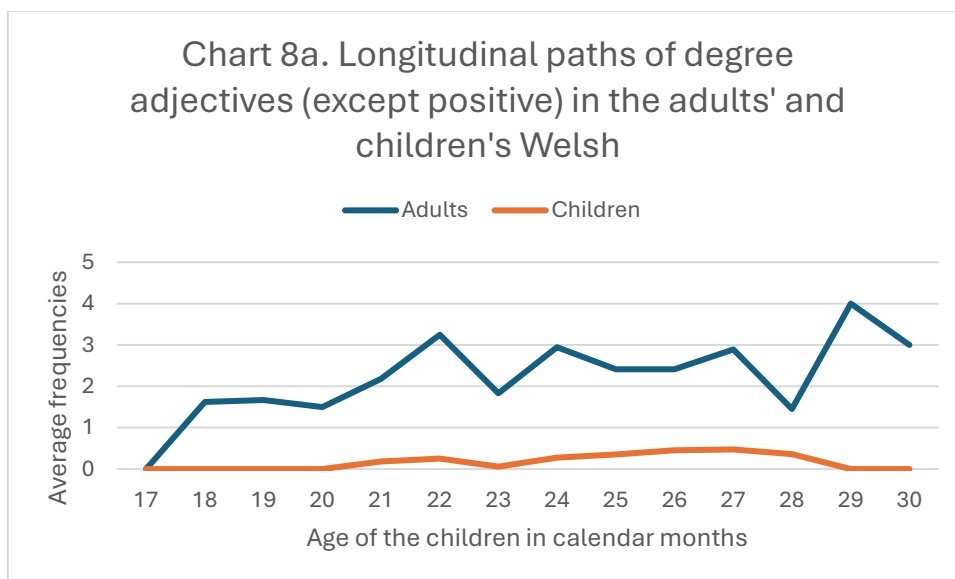
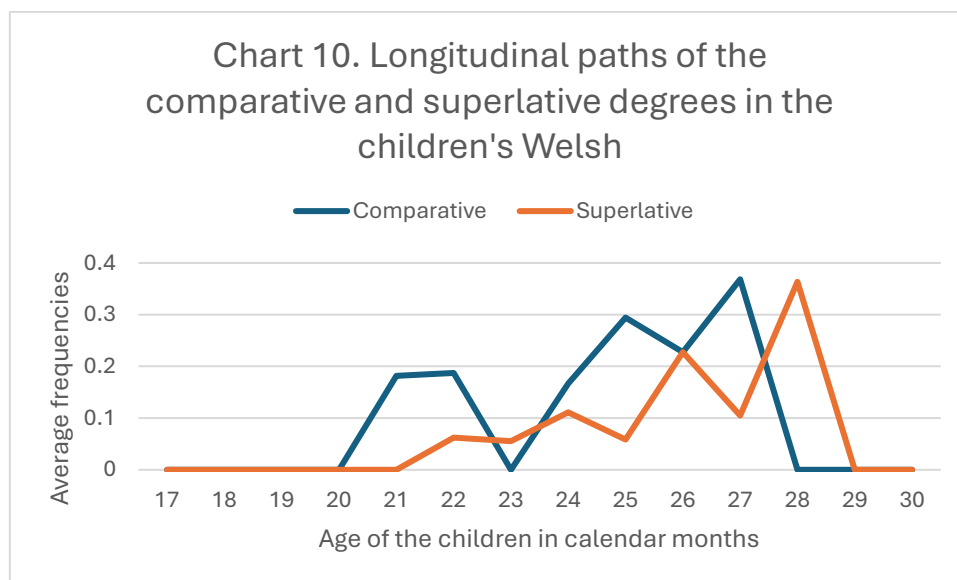


Chart 8b in particular shows that a degree adjective does not appear in the Welsh of the children until the 21st month.

Chart 10 compares the occurrences of the comparative and superlative degrees in the children's Welsh and shows that comparatives emerge at the 21st month followed by the emergence of superlatives in the 22nd month. Thereafter their longitudinal paths are similar.



As in the Welsh of the adults, certain lexemes predominantly occur as comparatives and superlatives. Table 3 gives the frequencies for the lexemes which occur in the children's Welsh. The frequencies in the adults' Welsh are repeated here for convenience of comparison.

Table 3. Frequencies of the equative, comparative and superlative degree words in the children's Welsh

		Adults	Children
Comparative	<i>gwell</i> 'better'	137	22
	<i>haws</i> 'easier'	8	1
	<i>mwy</i> 'bigger, more'	7	1
	<i>uwch</i> 'higher'	3	1
	all others (10)	15	0
		170	25
Superlative	<i>cyntaf</i> 'first'	90	10
	<i>nesaf</i> 'next'	97	6
	all others (6)	34	0
		221	16
Equative	<i>cystal</i> 'as good as'	1	0

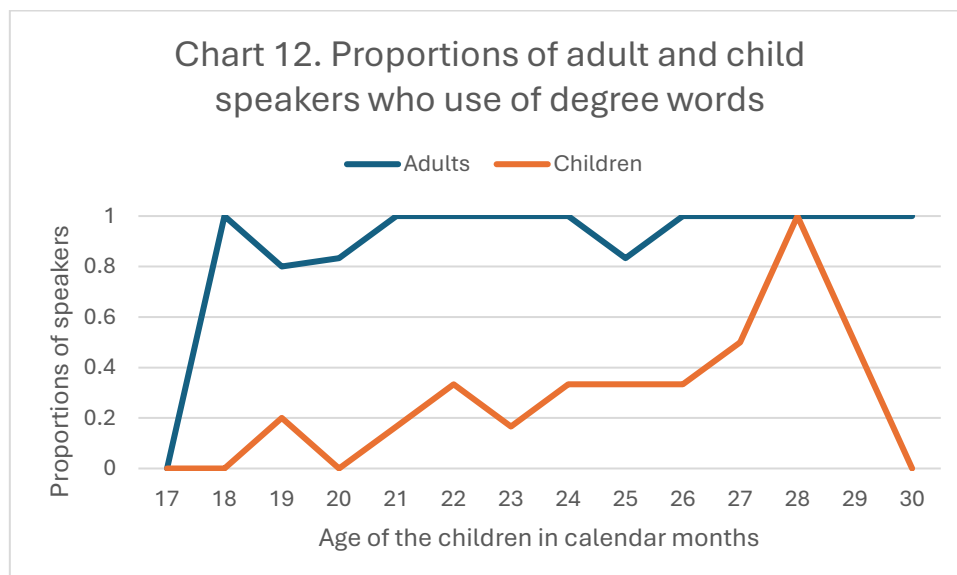
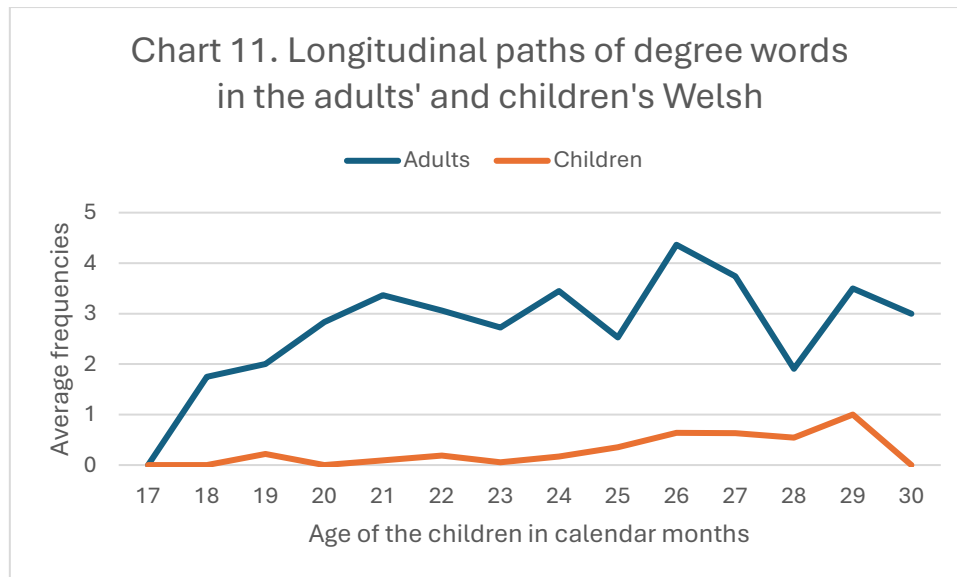
Examples of comparative and superlative examples in the children's Welsh are given in (2) and (3).

- 2 a. *hwn yn2 well,, yndy.*
 this PRED better be.PRES.3SG
 ‘this better, yes.’
- b. *a ceffyl mwy.*
 and horse bigger
 ‘and a bigger horse.’
- c. *hwn haws.*
 this easier
 ‘this easier.’
- 3 a. *dw i 'n mynd a: hwnna gyntaf.*
 be.PRES.1SG I PROG go with that first
 ‘I’m taking that first.’
- b. *hwnna nesa.*
 that next

Table 3 shows that the adults use more lexemes than the children but the use of lexemes by the children is similar to the use of adults in that the comparative *gwell* ‘better’ and the superlatives *gyntaf* ‘first’ and *nesaf* ‘next’ predominate. The two superlative forms are again used as adverbs. The restricted range of lexical items, the occurrence of mainly suppletive forms and the use of the superlatives mainly as adverbs give grounds for the view that the degree forms of adjectives are acquired as lexical items. That is, the children are not necessarily aware of the system of degree nor the morphology of the degree forms of adjectives.

2.1.2 Degree words

Chart 11 gives the longitudinal paths of degree words in the Welsh of the adults and the children and chart 12 gives the proportions of speakers who use them.



All the adults in each age group with a few exceptions use degree words. Consequently there is a mainly consistent input, although chart 11 shows that the frequencies are low. Degree words first emerge in the Welsh of the children at 19 months and there is a gradual increase in their use by some but not all of the children in each age group until 28 months.

The frequencies of the lexemes which occur as degree words in the Welsh of the children are given in table 4, along with the frequencies for the adults' Welsh.

Table 4. Frequencies of degree words.

	Adults	Children
<i>iawn</i>	309	15
<i>rhy</i>	174	35
<i>go</i>	13	3
<i>mor</i>	8	0
<i>hollol</i>	3	0
<i>reit</i>	3	0
<i>byth</i>	2	0
<i>eitha</i>	2	0
<i>bron</i>	1	0
	515	53

Examples of the use of degree words by the children are given in (4).

4 a. *rhy fawr*.

too big

'too big.'

b. *da iawn*.

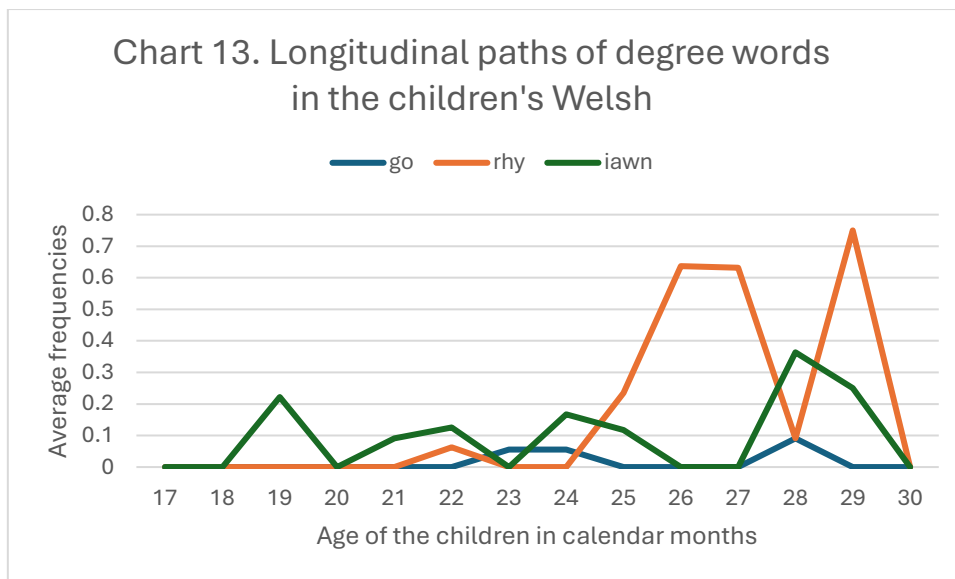
good very

c. <*ceffyl* [/] *ceffyl* [/] *ceffyl go iawn*>[>].

horse horse horse fairly proper

'a fairly proper horse.'

Table 4 shows that the frequencies of degree words in the children's Welsh largely follows that in the adults' Welsh in that *iawn* 'very', *rhy* 'too' and *go* 'fairly' are dominant and that those degree words which do not occur in the Welsh of the children are low frequency items in the Welsh of the adults. But unlike the adults' Welsh, the most frequent overall in the Welsh of the children is *rhy* 'too' (66.04%), which compares with *iawn* 'very' (28.30%). Chart 13 gives the longitudinal paths of the lexemes which are degree words in the children's Welsh and the chart shows that although *rhy* is the most frequent overall it is *iawn* which is the first to emerge at 19 months and remains dominant until 24 months when the use of *rhy* increases.



2.1.3 Adjectives as modifiers

Table 5 gives the frequencies for adjectives which can modify other adjectives in both the adults' and children's Welsh.

Table 5. Frequencies of adjectives which modify adjectives in the children's Welsh

	Adults	Children
<i>neis</i>	19	1
<i>bach</i>	9	29
<i>teg</i>	3	0
<i>ofnadwy</i>	2	0
<i>golau</i>	1	1
<i>hen</i>	1	0
<i>manwl</i>	1	0
<i>posib</i>	1	0
<i>tywyll</i>	1	0
	38	31

Examples of an adjective being used as a modifier in the children's Welsh are given in (5).

- 5 a. *slo bach*.
 slow little
- b. *gynnes neis*.
 warm nice
 'nice and warm.'

- c. *glas gole*.
 blue light
 ‘light blue.’

In the Welsh of the children the use of an adjective as a modifier is limited in two respects. It is limited mainly to *bach*, which, as in the Welsh of the adults, is confined to the phrase *slo bach* ‘steady on’. The use of *bach* is also limited in that 28 of its 29 occurrences are used by one child. It is unlikely that the use of an adjective to modify another adjective has been widely acquired by children of this age. It is this child’s use of *slo bach* which accounts for the spike in the use of an adjective as modifier at 25 months in chart 7.

2.1.4 Quantifiers

There are no quantifiers which are used as modifiers in the Welsh of the children.

2.1.5 Noun modifiers

In the adults’ Welsh the two nouns *top* ‘top’ and *sopen* ‘soaking’ can modify a very small number of adjectives. They do not occur in the children’s Welsh.

2.1.6 Prepositional phrase patterns

In the adults’ Welsh prepositional phrases are involved in modification in two ways: (i) the modified adjective is the complement in a prepositional phrase and (ii) the prepositional phrase is a post-modifying. Neither occur in the Welsh of the children.

2.1.7 Reduplication

Reduplication occurs in the Welsh of the children.

- 6 a. *llew mawr mawr*.
 lion big big
 ‘a big big lion.’
- b. *rhai bach bach 'di marw*.
 ones small small PERF die
 ‘small small ones dead.’
- c. *llyn mawr mawr mawr mawr*.
 lake big big big big
 ‘a big big big big lake.’

As with the adults, the most frequent reduplication is one which involves two mentions of the same lexeme but there are also examples of three or more mentions.

Chart 14 gives the longitudinal paths of reduplication in the Welsh of the adults and the children and chart 15 gives the proportions of its use by both in each age group.

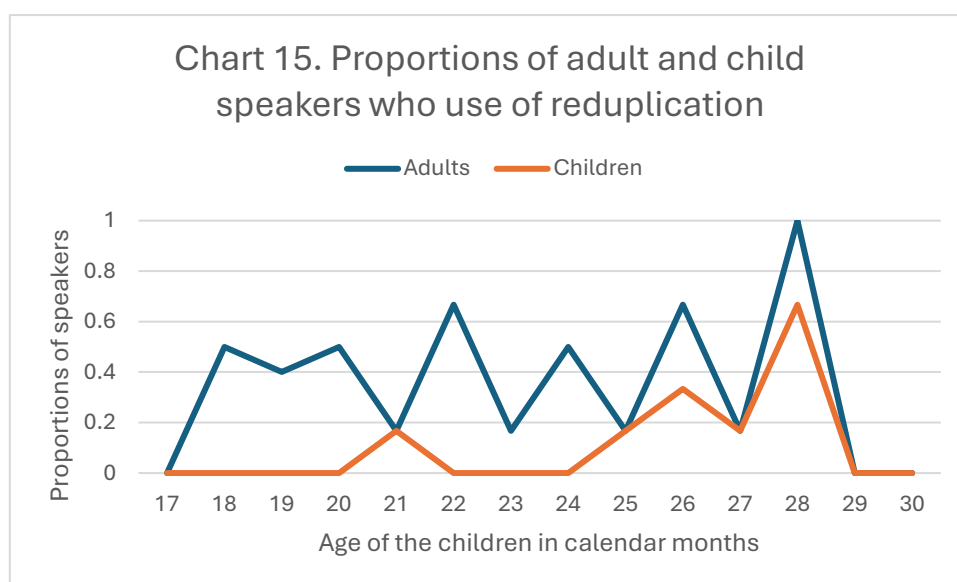
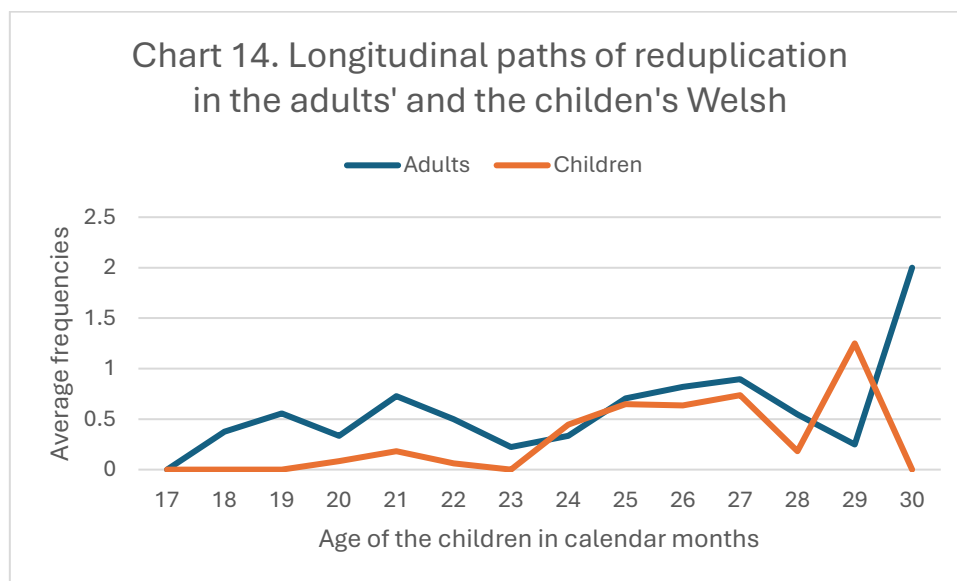


Chart 14 shows that reduplication emerges in the Welsh of the children at 20 months but chart 15 shows that is not used by all of the children at any point in the life of the children. This is also the case with the adults, with exception of the 28th month. But a count of the examples produced by adults shows that one adult has produced 48 of 94 examples and the remaining 46 are produced by six adults. Overall, the input language does not expose children consistently to reduplication.

2.1.8 Other methods of modification

There are no other methods of modification in the children's Welsh.

2.1.9 The modification of modifiers

There are no examples of the modification of modifiers in the Welsh of the children.

2.2 More about complementation

Complementation in the children's Welsh is very restricted, as table 6 shows.

Table 6. Frequencies of the complements of adjectives.

	Adults	Children
No complement	4719	1743
<i>I</i> -clauses	60	0
Prepositional phrases	24	0
Verb / copula phrases		
Nominal phrases	23	4
Verb phrase	4	0
Nominal phrase	4	3
Complement clause	6	0
Others	3	0
	124	7
	4843	1750

There are only seven examples of an adjective phrase which contains a complement in the Welsh of the children, all of which are given in examples (7) and (8).

7 a. *yn2 sownd yn1 gwallt.*

PREDsound in hair

'stuck in hair.'

b. *mae 'n2#styc yn1 wallt.*

be.PRES.3SG PREDstuck in hair

c. *dewi@c [= @c gwely] mynd styc yn1 ty:.*

bed go stuck in house

'bed goes stuck in house.'

d. *yn2 styc i'leid@c [= @c sleid] mae 'o.*

PREDstuck to slide be.PRES.3SG it

'it is stuck to slide.'

8 a. *oh,, llaw'2@c [= @c llawn] wiwi[x 2].*

oh full wee-wee

'full of wee-wee.'

b. *xxx llaw'2@c [= @c llawn] wiwi.*

xxx full wee-wee

'xxx full of swee-wee.'

- c. *llaw'2@c* [= @*c llawn*] *wiwi napi*[>].
 full wee-wee nappy
 full of wee-wee nallpy.'

The examples in (7) contain prepositional phrase complements and those in (8) contain nominal phrases. As the examples in (7) show the lexical patterns in the examples with prepositional complements in the children's Welsh are *sownd yn I* 'sound in', *styc yn I* 'stuck in' and *styc i* 'stuck to'.

Chart 16a gives the longitudinal paths of adjective phrases which contain some form of complementation in the Welsh of the adults and children, and chart 16b gives a more detailed view of the children's use for clarity.

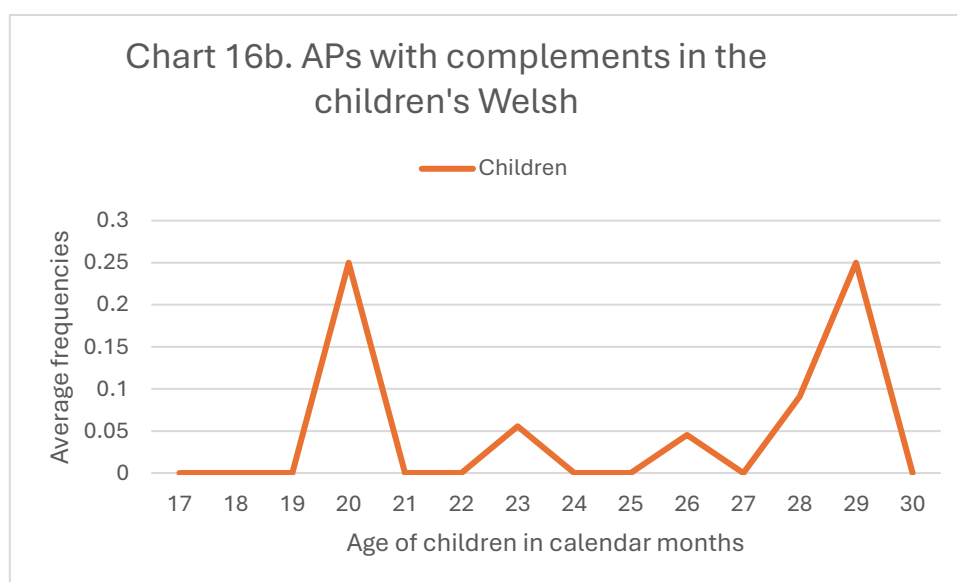
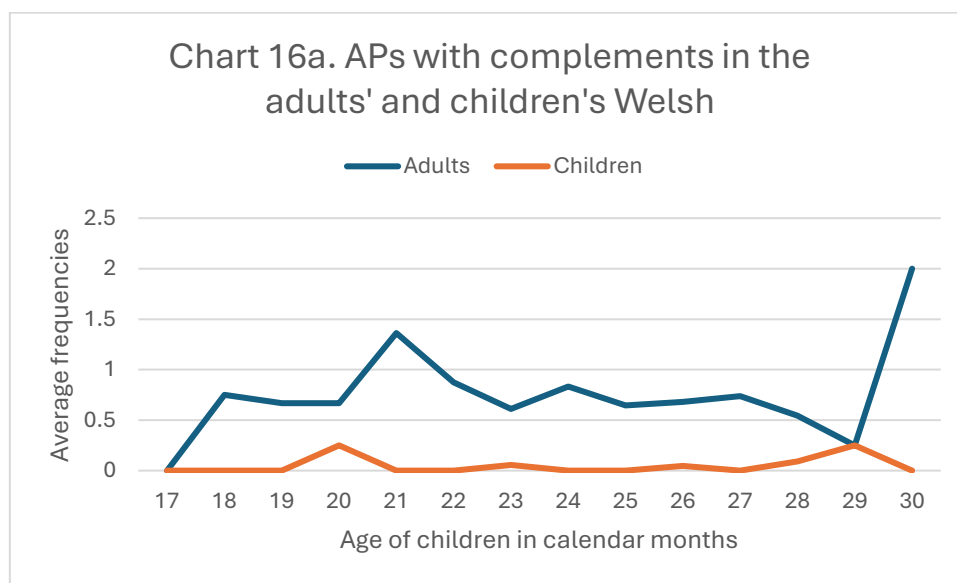
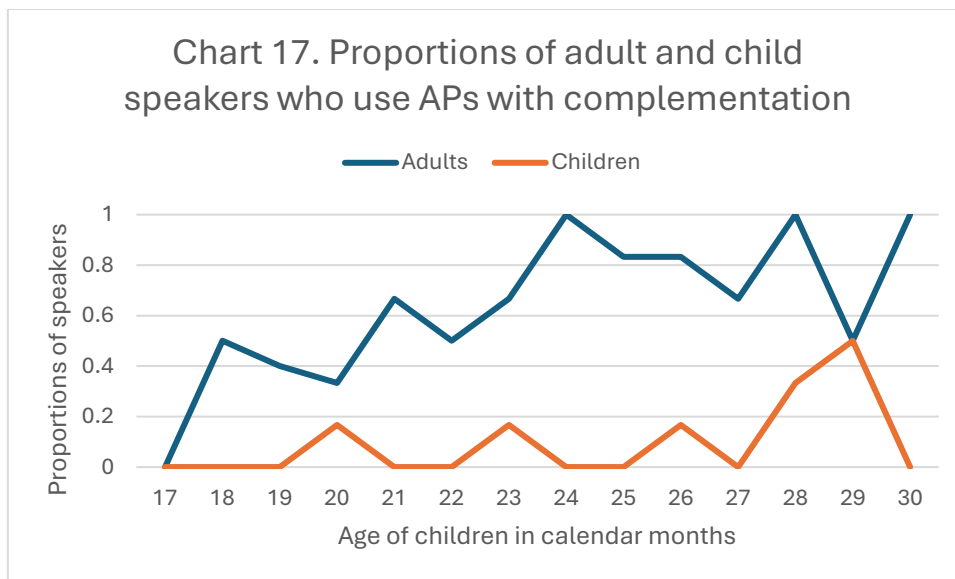


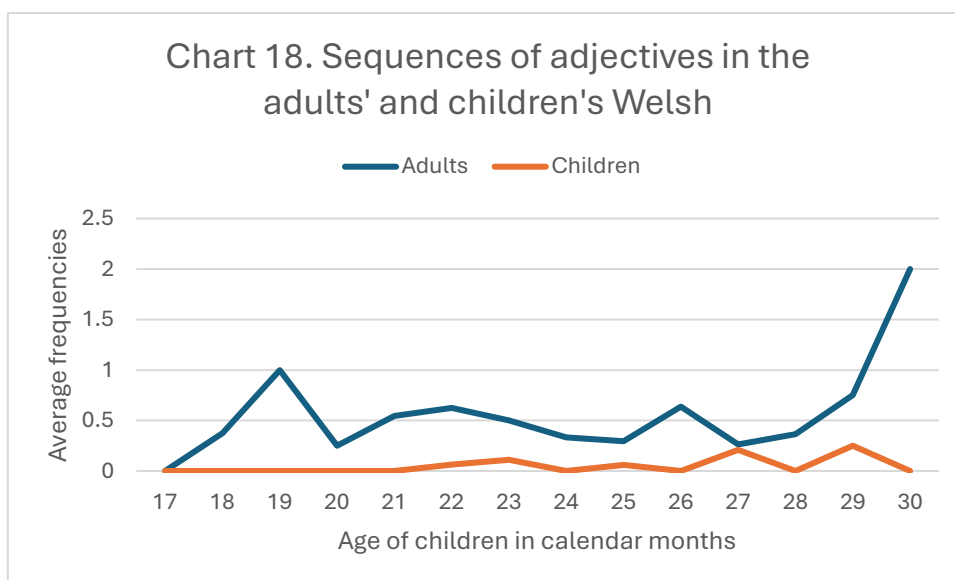
Chart 17 gives the proportions of speakers in each age group who use an adjective phrase which contains complementation.

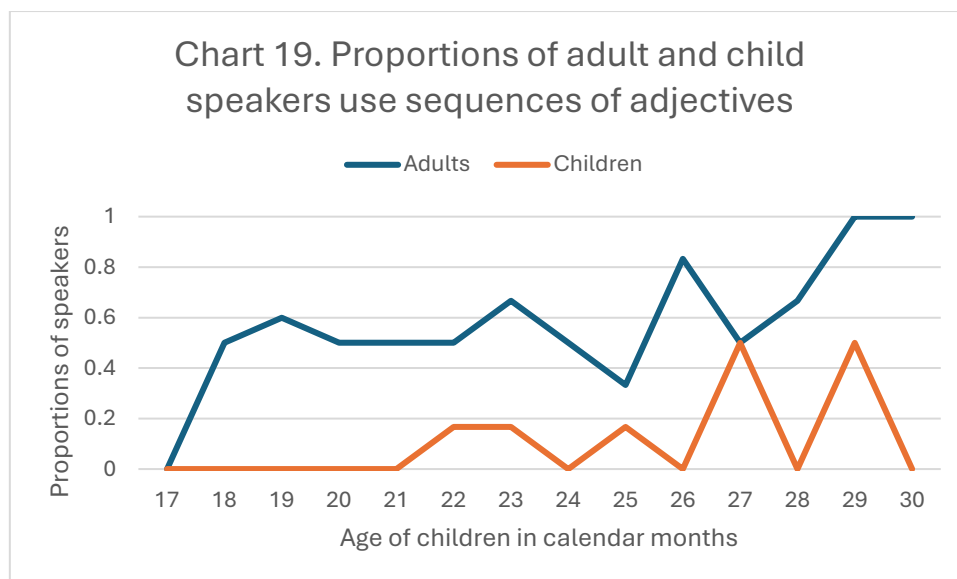


This chart shows that not all adults use an adjective phrase which contains a complement until the children were 24 months old and that the proportions were variable thereafter but higher than before 24 months. The proportions of children are low throughout the span of the project. Charts 16a and 17 show that the input language is not strong and that the acquisition of complementation is not fully acquired even before the age of 30 months.

2.3 Sequences of adjectives and ordering

Charts 18 and 19 show that sequences of different adjective lexemes are not frequent in the input language of the adults neither in terms of average frequencies nor proportions of speakers.





Sequencing does not emerge in the Welsh of the children until the 22nd months and, like the input language, it remains infrequent thereafter and does not achieve unanimous usage during the life of the project.

Examples of sequences of different adjective lexemes are given in (9).

- 9 a. *wneud ty: bach, del.*
do house little pretty
‘do a little, pretty house.’
- b. *trwyn mawr, hir.*
nose big long
‘a big, long nose.’
- c. *bys mawr, coch.*
finger big red
‘a big, red finger.’
- d. *diodxxx pinc, pigog.*
drink xxx pink spiky
‘a pink, fizzy drink.’

The sequencing of different semantic classes of adjective lexemes in the children’s Welsh is given in table 7, which cross-tabulates the sequences of semantic classes in first and second position. The left-most column gives those classes which occur first in the sequence while the top-most row gives those classes which occur in second position. The right-most column gives the frequencies of those classes which occur first in the sequence and the bottom-most row gives the frequencies of those classes which occur in second position.

Table 7. The ordering of semantic classes of adjective lexemes in sequence

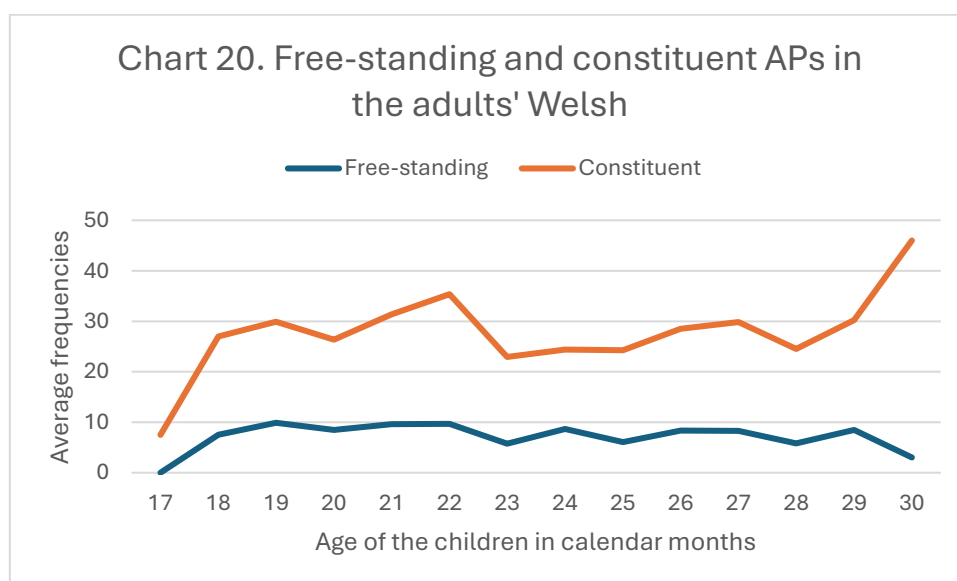
	length	look	colour	age	weight	shape	size	texture	????
length									
colour			1				1	1	3
size	1	2	2				1		6
texture									
????									
	1	2	3				2	1	9

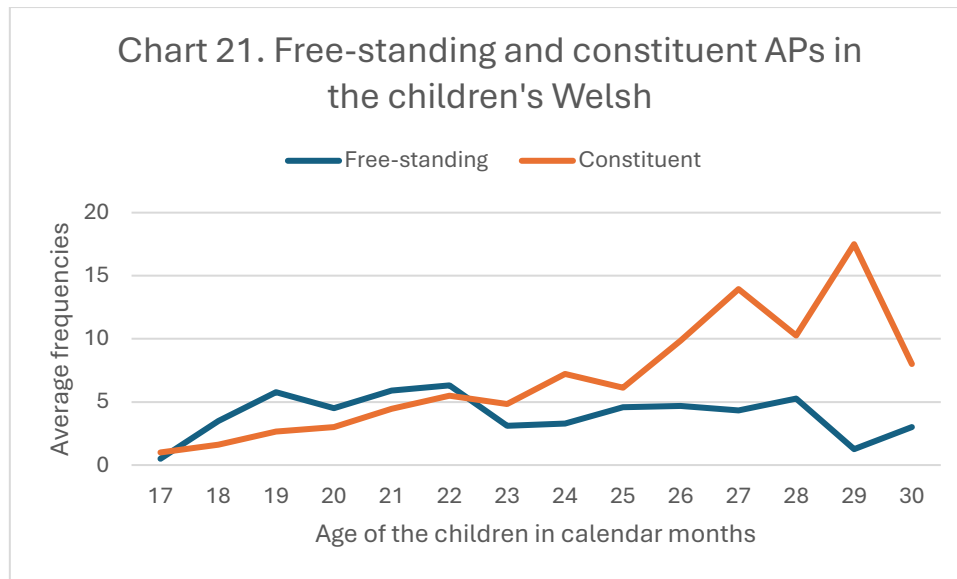
There are only a few examples in the children's Welsh. Adjectives of size are the main semantic class and of the six examples which contain a size adjective and another semantic class an adjective of size occurs first in five examples and in the only example in which it occurs second it is preceded by an adjective of colour. Both sequences follow the tendencies which are found in the Welsh of the adults.

3 Distribution: syntactic context

In order to use an adjective phrase, a child must acquire the syntax of the contexts in which an adjective phrase can occur — that is, the syntax of the type of clause in which a free-standing adjective phrase can occur and the syntax of the phrase in which an adjective phrase can occur as a constituent. A study of the acquisition of adjective phrases as free-standing phrases in various clause types and as constituents in various phrase types is essentially an account of the syntax of those clauses and of those phrases. Such a study requires a study of clausal and phrasal syntax at a level of detail and scope that cannot be undertaken here. Consequently, only general observations are made in this study.

Charts 20 and 21 give the longitudinal paths of adjective phrases which are either free-standing or which occur as a constituent in another phrase in the Welsh of the adults and the Welsh of the children.





In the Welsh of the adults, constituent adjective phrases are more frequent than free-standing adjective phrases throughout the length of the project. But in the children's Welsh, free-standing adjective phrases are more frequent than constituent adjective phrases during the first six months of the project and it is from 22 months onwards that constituent adjective phrases become more frequent. A reasonable explanation is that the children become more familiar with the syntax of the phrases in which adjective phrases can occur as constituents. But this explanation is weakened by the fact that constituent adjective phrases are not absent during this early period but are less frequent than free-standing adjective phrases.

3.1 Clause constituents

The frequencies for the main clause types and distinctions within these are given in table 8 and again the frequencies for the adults' Welsh are repeated here for ease of comparison.

Table 8. Frequencies of adjective phrases as main phrases in different clause types

		Adults	Children
Fragments	AP only (inc. negs.)	820	457
	AP and XP(s)	90	34
		910	491
Finite	Adverb	88	6
	Subject	3	5
	Object	12	15
	Predicative	42	37
	Fronted Pred	56	18
	Other fronted	3	2
		204	83
Peripheries	Left	3	0
	Middle	2	0
	Right	58	1
	<i>siwr</i>	23	0
		86	1
Predicative demonstratives		82	2
Subject-Predicate		29	64
Unclear		0	1
Missing data		5	103
		1316	745

Examples of adjective phrases as free-standing constituents in different sorts of clauses are given in (10).

10 a. *'na2 neis.*

there+'s nice

'that's nice.'

b. *coch hwn.*

red this

'this red.'

c. *du.*

'black.'

d. *dw i 'n mynd a: hwnna gyntaf.*

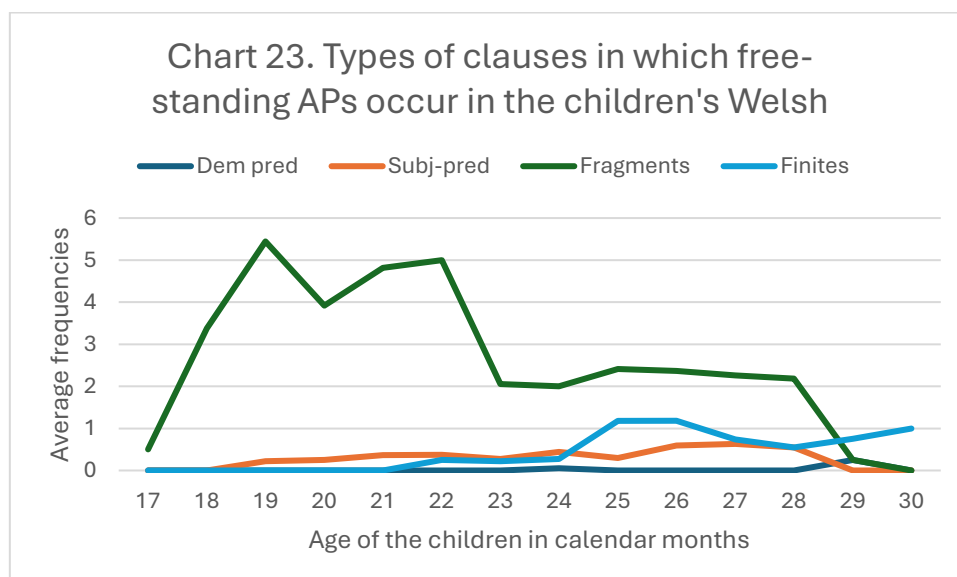
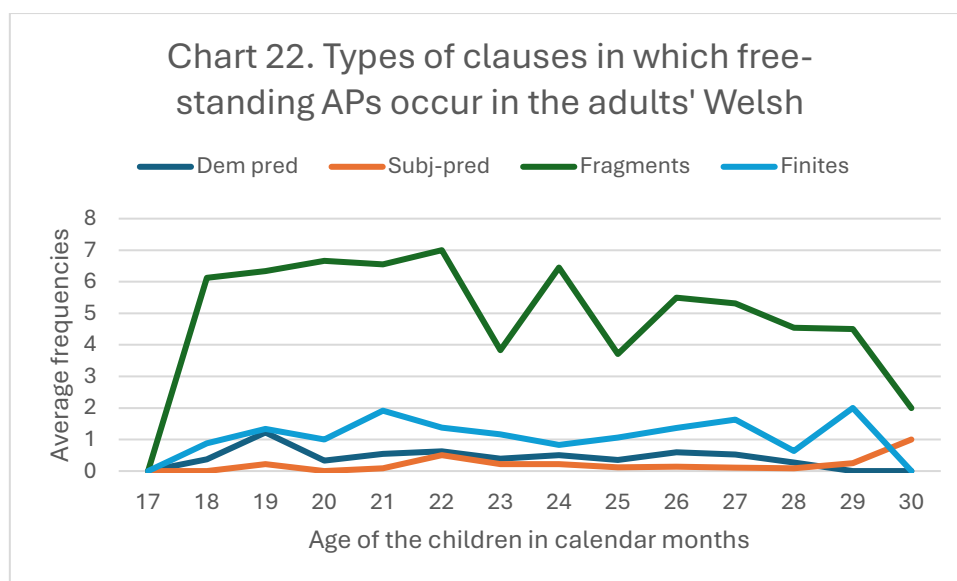
be.PRES.3SG I PROG go with that first

'I'm taking that first.'

- e. *lle mae coch yn mynd xxx?*
 where be.PRES.3SG red PROG go xxx
 ‘where does red go xxx.’
- f. *yli da,, L---*
 look.IMPV.3SG good L---
 ‘look — good, L---.’
- g. *melyn yw hwn.*
 yellow be.PRES.3SG this
 ‘this is yellow.’
- h. *mae e hen.*
 be.PRES.3SG it old
 ‘it’s old.’
- i. *bach fi wneud 'o yfanna.*
 small I do it there
 small I’m doing it there.’
- j. *naci,, ew, annwyl.*
 no hew dear.
 ‘no, hew, dear.’

Table 8 shows that the hierarchy of the frequencies in the Welsh of the adults and the children is similar. In both cases, fragments are the most frequent, accounting for 69.15% in the case of the adults and 65.95% in the case of the children. Next are finite clauses: 15.50% in the adults’ Welsh and 11.14% in the children’s Welsh. Differences arise in the case of the remaining types. Adjective phrases occur in the peripheries in the adult Welsh (6.53%) but only one example occurs in the children’s Welsh. Adjective phrases in predicative demonstratives amount to 6.23% but only two occur in the children’s Welsh. In the Welsh of the children there are more examples of adjective phrases in subject-predicate clauses (8.59%) than in the adults’ Welsh (2.20%).

A comparison of charts 22 and 23 show that the adults’ Welsh and the children’s Welsh are similar in that fragments are the main clausal context in which adjective phrases occur.



In the Welsh of the children, adjective phrases in fragments are the earliest to emerge at 17 months. Subject-predicate patterns containing adjectives are the next to emerge at 18 months. Adjective phrases in finites clauses do not emerge until 21 months and demonstrative predicates containing an adjective emerge at 24 months but are barely present in the life of the project. The early emergence of adjectives in fragments in Welsh is in alignment with the observations in Tribushinina (2018: 266) that children start using adjectives in single-word utterances and telegraphic phrases.

3.2 Adjective phrases as constituents in other phrases

Table 9 gives the frequencies for the various phrases in which an adjective phrase can occur in the Welsh of the children, again along with the frequencies in the Welsh of the adults.

Table 9. Frequencies for subordinate adjective phrases

	Adults	Children
Nominal phrases	2725	894
Predicative phrases	1614	257
Manner adverb phrases	256	43
Verb phrases	10	6
Prepositional phrases	7	2
All others	11	1
Unclear missing data	0	3
	4623	1206

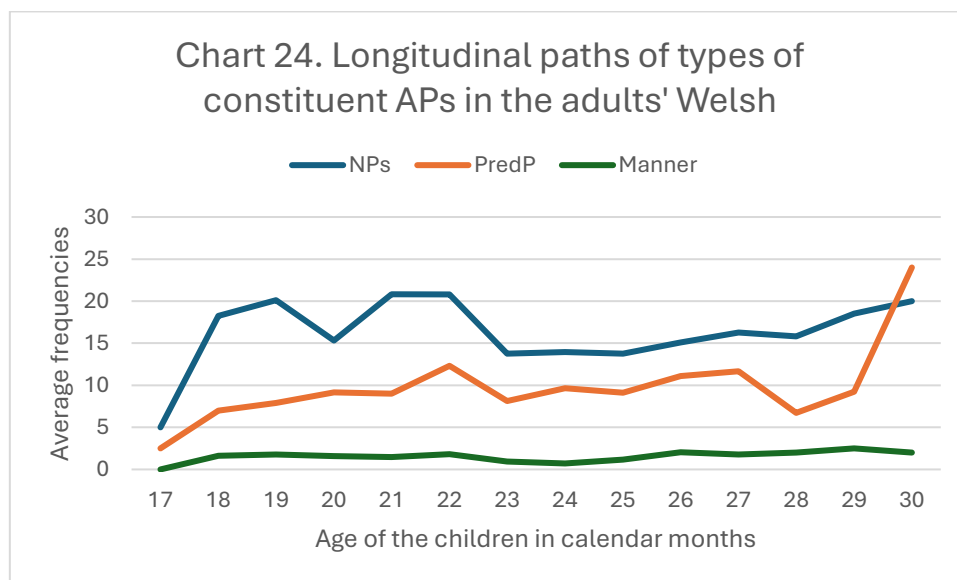
Examples of adjective phrases as constituents in other phrases are given in (11).

- 111a. *ceffyl bach.* [Noun P]
horse little
‘a little horse.’
- b. *lori yn2 sownd.* [Predicative P]
lorry PRED sound
‘lorry stuck.’
- c. *hwn yn mynd yn3 ffast.* [Adverb P]
this PROG go ADV fast
‘this going fast.’
- d. *isio tynnu posh* [% bobble in hair]. [Verb P]
want pull posh
‘want to pull ‘posh’.’
- e. *gafael dynn.* [Verb P]
hold tight
‘hold tight.’
- f. *mynd [/] <mynd i' bell eto>[/] yn mynd i' bell eto.* [Prepositional P]
go gi to far again PROG go to far again
‘going far again.’
- g. *isio <la:n@c [= @c gla:n]> [/] gla:n.* [*Eisiau* ‘want’ P]
want clean clean
‘want clean.’

Table 9 shows that the hierarchy of frequencies is the same in the Welsh of the adults and the Welsh of the children: nominal phrases, especially, predicative phrases and manner adverbial phrases are the most dominant in both cases in that order. But the percentages are different. Nominal phrases are by far the most frequent in the Welsh of the children (74.13%) than the adults (58.94%). Predicative phrase

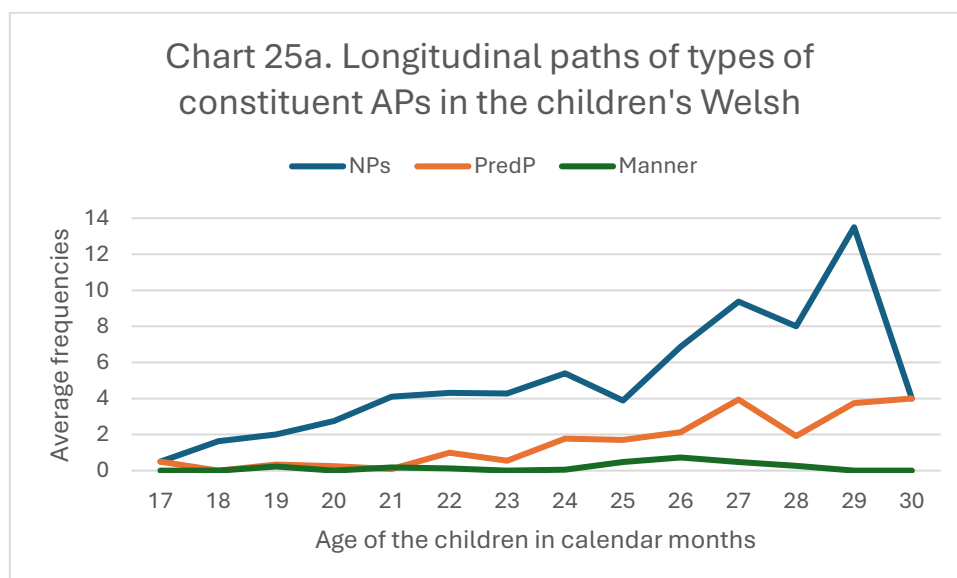
and manner adverb phrases are more frequent in the Welsh of the adults (34.91% and (5.54%) than in the Welsh of the children (21.31% and 3.57%). The charts of longitudinal paths which follow concentrate on the three most frequent phrases, namely, nominal phrases, predicational phrases and manner adverb phrases.

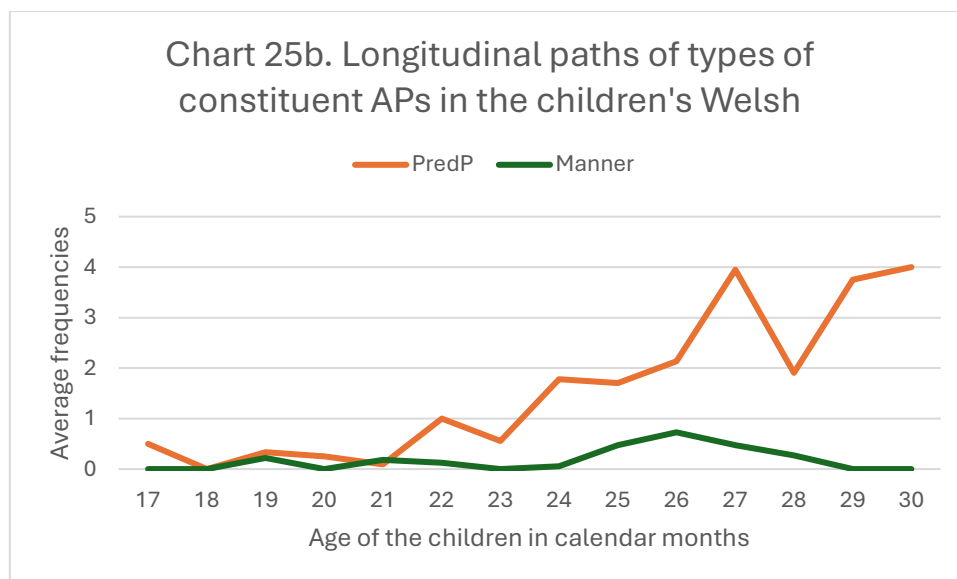
Chart 24 gives the longitudinal paths of the different types of phrases which contain an adjective phrase in the adults' Welsh.



This chart shows that the hierarchy of frequency in descending order is nominal phrases, predicational phrases and manner phrases.

Chart 25a shows that it is the nominal phrases which have the dominant longitudinal path in the children's Welsh throughout the period of the project. Chart 25b gives a more detailed view of predicational phrases and manner phrases in the children's Welsh.





Nominal phrases which have the dominant longitudinal path throughout the period of the project. Predicative phrases are present at 17 months and increase in frequency over the span of the project. Manner phrases appear at 19 months but are infrequent over the span of the project. The dominance of adjectives as attributive adjectives in noun phrases is in alignment with observations in Tribushinina (2018: 267–269) that the use of adjectives depends upon the use of nouns. Charts 25a and 25b also show that the other syntactic context, as predicate adjectives, is also present early in acquisition and increases with age but not on the same scale as the nominal context. In the current study we concentrate upon syntactic dependence but Tribushinina (2018) also considers other relationships between adjectives and nouns.

4 Co-ordination

There are only two examples of co-ordinated adjective phrases in the database.

12 a. *du a gwyn.* [+ imit.]

black and white

‘black and white.’

b. *xxx coch a gwyn a glas a melyn.*

xxx red and white and blue and yellow

‘xxx red and white and blue and yellow.’

Both examples involve the co-ordination of colour adjectives.

5 Summary and conclusions

The order of the acquisition of adjective phrases is that bare adjective phrases are mastered by 17 months by the latest. Then, modified adjective phrases are acquired by 19 months although unanimous acquisition is achieved sporadically over the months of the project. A complemented adjective phrase appears at 20 months but the frequencies of such phrases over the span of the project along with the proportions of child speakers indicate that complementation is not acquired in the period of the project.

Adjective phrases are used mainly as constituents in other phrases rather than as free-standing phrases in different clause types. As constituents they mainly occur in nominal phrases and predicative phrases, which indicates that the syntax of these phrases must first be acquired in order to use adjective phrases.

The use of adjective phrases by the children largely mirrors the input language provided by the adults. We see the same statistical hierarchies so that what is frequent in the input language is frequent in the children's Welsh. One exception to this is the early use of free-standing phrases rather than constituent phrases by the children. Overall, however, the observations about frequencies follows observations about the relationship of adult frequencies and child frequencies which are found in Tribushinina (2018: 260–262).

Low frequency items raise a problem. As stated, the frequencies in the children's Welsh parallels the frequencies in the adults' Welsh. Items of low frequency in the adults' Welsh are absent in the children's Welsh. We could claim that the absence of such items indicates that they have not been acquired. We could also consider another view that it is not that they have not been acquired but that they are so infrequent in the children's Welsh that no examples occurred during the recordings. This is a difficult matter to resolve and, taking matters at face value, this study will assume that no examples indicates no acquisition.

The main methods of modification are reduplication, degree words and degree. But their occurrences are not generally frequent and neither is there sustained unanimous use. Further, modification indicates a close relationship between syntax (including morphology) and lexis. Only two degree words occur with any notable frequency, namely, the pre-modifier *rhy* 'too' and the post-modifier *iawn* 'very'. Degree is very restricted being mainly realized by the comparative form *gwell* 'better' and the superlatives *cyntaf* 'first' and *nesaf* 'next', and the latter are used as adverbs. The use of adjectives as modifiers is barely present and most of the examples involve the expression *slo bach* 'steady' which is used mainly by one child. We also see that the lexeme adjectives which are modified are small in number. The degree word *iawn* 'very' mainly occurs with *da* 'good' as in *da iawn* 'very good'.

The restricted range of lexical items, the occurrence of mainly suppletive forms and the use of the superlatives mainly as adverbs give grounds for the view that the degree forms of adjectives are acquired

as lexical items. That is, the children are not necessarily aware of the system of degree nor the morphology of the degree forms of adjectives.

As pointed out in previous sections, the paths of development are in alignment with typological trends which are observed in Tribushinina (2018).

References

Tribushinina, Elena. (2018). 'Acquisition of adjectives across languages and populations: What's wrong with them?', *Cahiers du Centre de Linguistique et des Sciences du Langage*, October 2018, pp. 259-275, <https://doi.org/10.26034/la.cdclsl.2018.257>.