

Thomas, and Laporte (pp. 53-87) take on the complex question of gender marking in Welsh. Any study of grammatical gender naturally invites an investigation of the relationship between 'natural' gender related to the gender of the referent, and grammatical gender as determined by the rules of the language. Arguably, the latter is more abstract and more difficult to learn, and Gathercole, Thomas, and Laporte test a variety of hypotheses which ultimately point towards the piecemeal acquisition of the gender system, balancing the conflicting demands of natural and grammatical gender as well as the different phonological systems of initial consonant mutation which help to mark gender distinctions. These results are clearly relevant to anyone who has worked with the complexities of gender marking and the initial consonant mutations for which the Celtic languages are so well known.

The current volume, which also updates the field with a review of Irish-language software packages, thus represents a confluence of interests among Celticists, first language acquisition specialists, second language teachers and learners, and others. This issue is something different for the JCLL, but it is hoped that it will constitute one further step towards the understanding of a broad range of problems in the Celtic languages and in language acquisition generally.

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THE DEVELOPMENT OF FINITENESS IN EARLY WELSH

Robert D. Borsley
University of Essex

Bob Morris Jones
University of Wales, Aberystwyth

This paper discusses the development of finiteness in early Welsh on the basis of a large corpus of natural speech from seven children, four in the Bangor area and three in the Aberystwyth area, recorded for approximately nine months between the ages of 19 and 27 months in 1993-4 and 1996. Overall the corpus shows a gradual emergence of finiteness. The earliest clausal utterances have no finite element. Later, finite sentences and especially sentences with forms of the copula *bod* appear. However, sentences with no finite element continue to occur after the appearance of the first finite sentences. It is likely that the changes in the observed data are as much a reflection of changes in the children's processing ability as of changes in their grammar.

Introduction

A major focus of research on the acquisition of syntax has been the development of finiteness. In this paper, we will discuss the development of finiteness in early Welsh on the basis of a large corpus of naturally-occurring speech from seven children acquiring Welsh as a first language, who were recorded for approximately nine months between the ages of 19 and 27 months. Four of the children were living in the Bangor area and three in the Aberystwyth area. One of the Bangor children was recorded in 1993-4. All the other children were recorded in 1996 as part of an ESRC-financed project (grant number R/000/23/6420). We will show that the earliest clausal utterances lack finite elements and that the use of such elements develops gradually, with utterances that lack finite elements persisting after the first finite elements appear. We will also consider the implications of the data in a preliminary way.

The basic data

The corpus that we are drawing on here consists of 168 recordings as follows. As can be seen, there are just 11 recordings for one of the children, but for the other six there are 24-29 recordings. For these children, the

earliest recording ranges from 1;6.8 to 1;8.31, while the final recordings range from 2;3.17 to 2;6.9. Thus, there are six very similar bodies of data, and this study is based on these six children.

Subject	Location	Number of recordings	First recording	Last recording
Alaw	Bangor	27	1;6.8	2;3.21
Bethan	Aberystwyth	24	1;7.28	2;4.30
Dewi	Bangor	29	1;9.21	2;6.9
Elin	Bangor	11	1;5.8	1;9.20
Mair	Aberystwyth	26	1;6.20	2;3.17
Rhian	Aberystwyth	25	1;6.17	2;3.23
Rhys	Bangor	26	1;8.31	2;5.21

The corpus shows a gradual emergence of finiteness. The earliest clausal utterances in the corpus have no finite element. We will refer to such examples as finiteless clauses. The following are representative examples:

- (1) a. *mochyn wneud o.* (Alaw, 1;7.27)
 pig do it
 'The pig is doing it'.
- b. *hwn yn brifo.* (Rhys, 1;9.12)
 this in hurt
 'This is hurting'.
- c. *pop di mynd.* (Bethan, 1;10.18)
 pop after go
 'Pop has gone'.
- d. *Lisa yn tew.* (Dewi, 1;10.23)
 Lisa PRED fat
 'Lisa is fat'.
- e. *bib fynna.* (Bethan, 1;10.18)
 bib there
 'The bib is there'.

- f. *mam isio.* (Dewi, 1;11.17)
 mam want
 'Mum wants'.

These examples represent a number of sub-types. Sentence (1a) consists of a subject, a non-finite verb (a verb-noun in traditional terminology), and possibly a complement. Examples (1b) and (1c) consist of a subject, what we will refer to as an aspectual particle, *yn* 'progressive' and *(we)di* 'perfect', a non-finite verb, and possibly a complement. Sentence (1d) consists of a subject, the predicative particle *yn*, and a predicative adjective. Example (1e) consists of a subject and an adverbial (commonly a locative as in (1e)), either an adverb or prepositional phrase. Finally, (1f) consists of a subject, the noun *isio* 'want', and possibly a complement of some kind.

Simple sentences with a finite lexical verb are quite rare. One of the few examples is (2) below. This rarity may reflect the fact that such sentences are rare in the adult Welsh spoken in the children's environment. However, we have not investigated this. Lexical verbs are quite common in imperatives such as (3), but it is not clear whether they are finite.

- (2) *aethon ni Dan-Ogof.* (Rhian, 2;1.23)
 went.IPL we Dan yr Ogof
 'We went to Dan yr Ogof'.
- (3) *rheda!* (Bethan, 1;7.28)
 run.IMP.2SG
 'Run!'

The main examples of clearly finite elements in the corpus are auxiliary verbs and especially forms of the copula *bod*; they gradually become more frequent in the data. The following are representative examples:

- (4) a. *mae lori yn mynd.* (Rhys, 1;10.18)
 is lorry in go
 'The lorry is going'.
- b. *ma Postman Pat di disgyn.* (Bethan, 1;11.15)
 is Postman Pat after fall
 'Postman Pat has fallen'.
- c. *mae hwn yn styc.* (Rhys, 2;2.15)
 is this PRED stuck
 'This is stuck'.

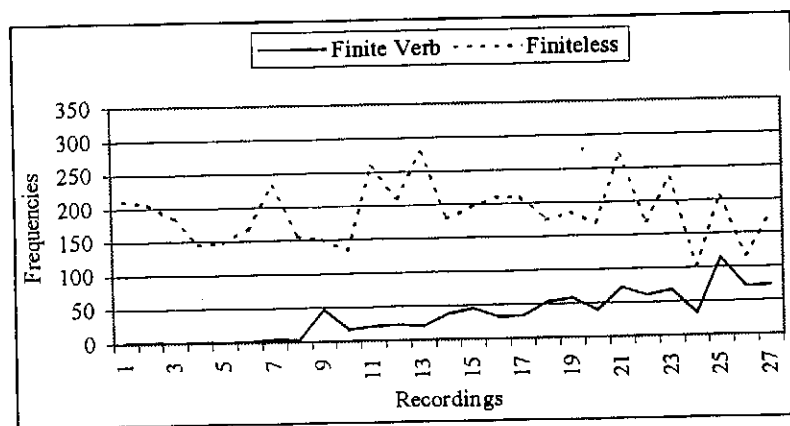
d. mae Sammy yfana. (Dewi, 2;2.3)
 is Sammy there
 'Sammy is there'.

e. dw i isio gadael nhw. (Alaw, 2;0.29)
 am I want leave them
 'I want to leave them'.

Examples (4a) and (4b) are so-called periphrastic sentences, while (4c) is what we might call a predicative sentence. We shall call (4d) a locative sentence. Finally, (4e) is what we shall call an *isio* sentence. An important point to note is that the examples in (4) are essentially the earlier examples in (1b-f) with the addition of a form of the copula.

Graphs 1 to 6 show the longitudinal development of finite and finiteless clauses in raw frequencies. Three points can be made. First, there is an uneven distribution of frequencies from one recording session to the next. But this should not be surprising, as the quantity of linguistic activity is bound to vary per half hour in the daily lives of children.

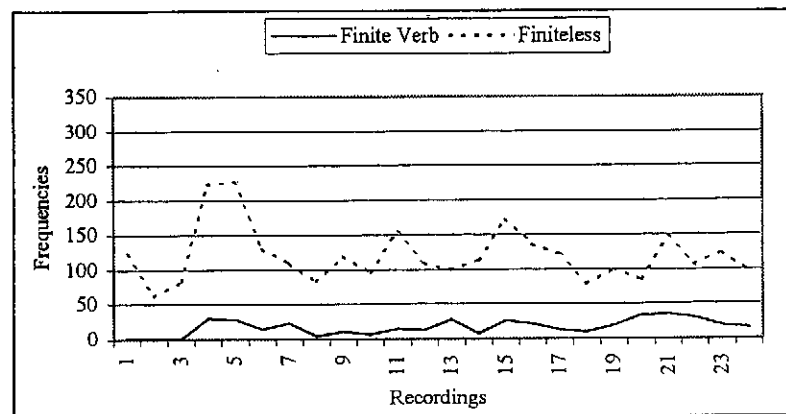
Graph 1: Finite and Finiteless — Alaw



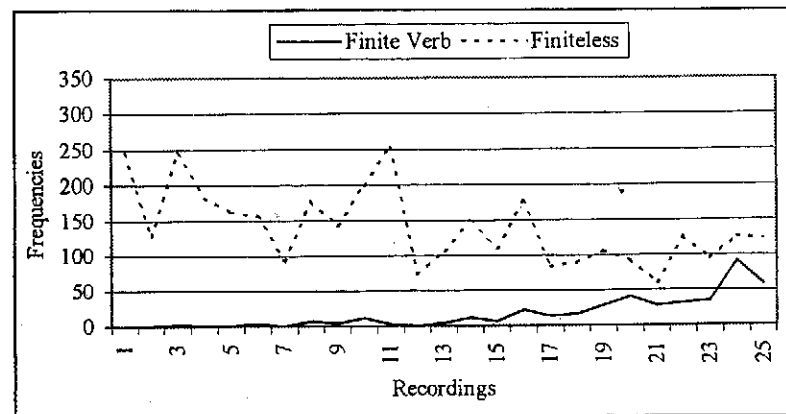
Second, the longitudinal development of finiteness varies with individual children. In this corpus, Rhys in Graph 5 and Bethan in Graph 2 represent two extremes. The former shows an increase of finite clauses over the period of his recording sessions, but the latter's use of finite clauses remains consistently low. The other four children come within these two extremes, with Dewi (Graph 6) and Alaw (Graph 1) approximating to the progress of

Rhys, and Rhian (Graph 3) and Mair (Graph 4) beginning to show signs of an increase in the use of finite verbs by the end of their recording periods.

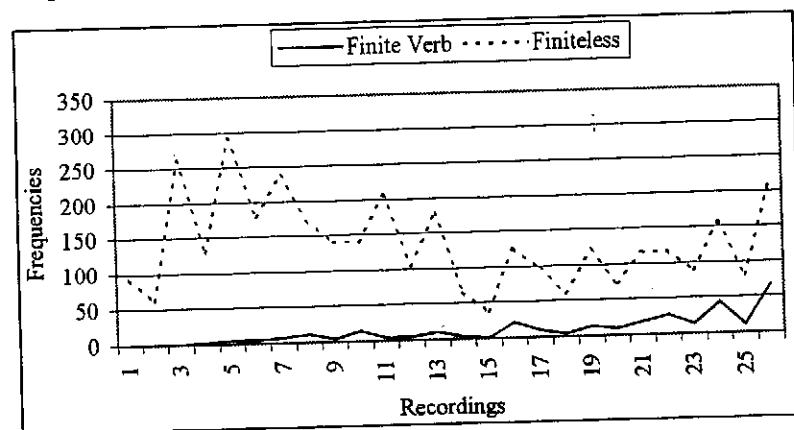
Graph 2: Finite and Finiteless — Bethan



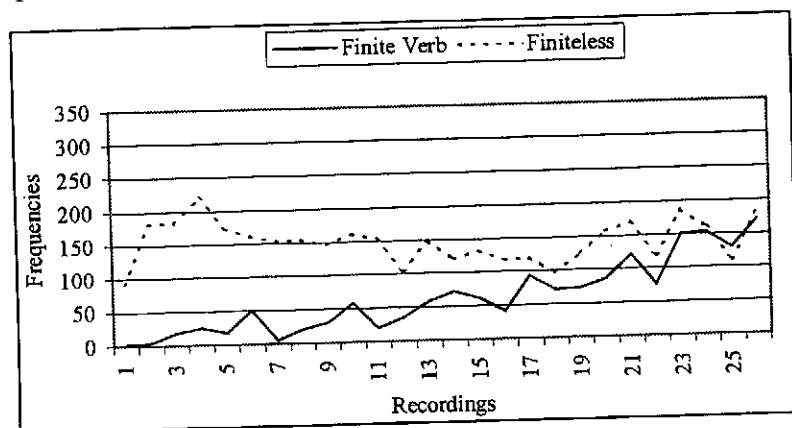
Graph 3: Finite and Finiteless — Rhian



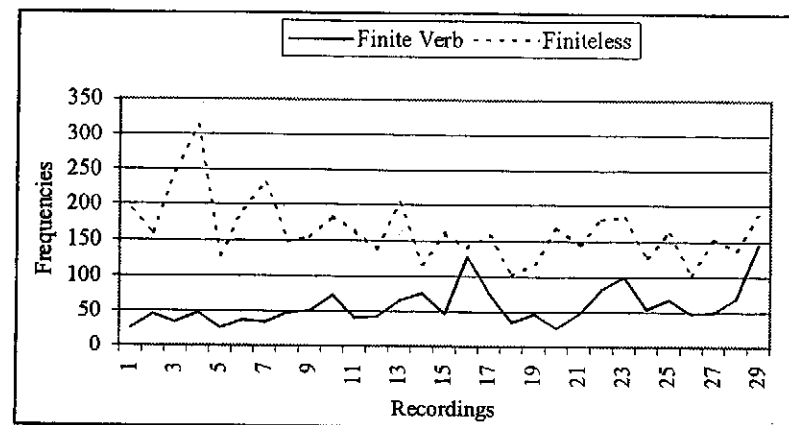
Graph 4: Finite and Finiteless — Mair



Graph 5: Finite and Finiteless — Rhys



Graph 6: Finite and Finiteless — Dewi



Third and most important, the graphs show that, even for those children where there is a clear increase in finite clauses, sentences with no finite element do not disappear once the former begin to emerge: examples like those in (1a-f) are still found in transcriptions at the end of the recording period. Here are some late examples of such sentences:

- (5) a. Lisa dwyn nhw. (Dewi, 2;5.23)
 Lisa take them
 'Lisa took them'.
- b. dyn yn mynd ar eliffant. (Rhys, 2;5.21)
 man PROG go on elephant
 'The man is going on the elephant'.
- c. Sam Tan wedi cal panad. (Bethan, 2;4.23)
 Sam Tan after get cup-of-tea
 'Sam Tan has had a cup of tea'.
- d. ti 'n iawn? (Bethan, 2;4.16)
 you PRED okay
 'Are you okay?'
- e. car Gwenan fynna. (Mair, 2;3.17)
 car Gwenan there
 'Gwenan's car is there'.

- f. *fi isio un arall.* (Alaw, 2;3.17)
 I want one other
 'I want another one'.

Discussion

The obvious questions to ask about our data are: how do the children's grammars differ from those of adults? and how do they develop during the period covered by the corpus? We cannot at present provide definitive answers to these questions, but we can offer a number of tentative conclusions.

As we have noted, a central feature of our data is the persistence of sentences with no finite verb after the first appearance of finite sentences. This has been a major concern of work on the acquisition of syntax over the last ten years, where it has been observed that children acquiring many languages continue to use so-called 'root infinitives' after they have begun to produce adult-like finite clauses. The following examples from Wexler (1994) are typical root infinitives:

- (6) *la poupe dormir.* (French)
 the doll sleepINF
- (7) *ich der Fos hab'n.* (German)
 I the frog haveINF
- (8) *pappa schoenen wassen.* (Dutch)
 father shoes washINF

In all three examples the only verb is an infinitive. For discussion of such examples, see Wexler (1994, 1996), Rizzi (1994), Phillips (1995), and Lasser (1997).

The examples in (1a) and (5a) look very much like typical root infinitives. However, others do not, some because they contain not just a verb-noun but the combination of an aspect marker and verb-noun, (1b-c, 5b-c) which might be called an aspectual phrase, others because they do not contain any verbal element, (1d-f, 5d-f). It seems to us that the literature on root infinitives is of limited relevance here, but space constraints prevent us from exploring this matter. As we have noted, these examples look a lot like sentences with an initial copula, except that they do not contain the copula. We might call them missing copula sentences.

An important fact that we should note here is that sentences with a missing copula are not uncommon in adult Welsh. They occur with certain pronominal subjects, especially *ti* 'you(SG)', *ni* 'we' and *chi* 'you(PL)'. They are also found with *fi* 'I' and *nhw* 'they' in the speech of some speakers of southern dialects. These sentences can contain the full set of predicates considered earlier. Thus, we have examples like the following:

- (9) a. *Ti 'n gadael.*
 you(SG) PROG leave
 'You're leaving'.
- b. *Ti 'n hwyr.*
 you(SG) PRED late
 'You're late'.
- c. *Ti yn y pentref.*
 you(SG) in the village
 'You are in the village'.
- d. *Ti isio diod?*
 you(SG) want drink
 'Do you want a drink?'

These sentences do not occur as commonly with other sorts of subject. Hence the adult data is different from the child data. It is not so different, however, as one would think if one overlooked examples like those in (9).

An important point about these examples in adult Welsh is that there is evidence that they are finite clauses. They take the same tag questions as ordinary finite clauses, and they can be embedded in the same contexts as ordinary finite clauses. The following sentences illustrate these points:

- (10) *(Wyt) ti 'n gadael, ynd wyt.*
 are-2SG you(SG) PROG leave Q+NEG are-2SG
 'You're leaving, aren't you?'
- (11) *Dw i'n meddwl (wyt) ti 'n gadael.*
 am I PROG think are-2SG you(SG) PROG leave
 'I think you're leaving'.

How should such adult examples be analysed? An obvious suggestion in various frameworks is that they involve a phonologically null form of

the copula. Thus, (9a) might have an analysis along the following lines:

(12) [S [V e] [NP ti] [AspP 'n gadael]].

What about the children's missing copula sentences? A null copula analysis is not very plausible at an early stage when they show no signs of having overt forms of the copula. At this stage we presumably have 'small clauses' with just a subject and predicate of some kind with no finite element. Thus, (1b) probably has the following structure:

(13) [S [NP hwn] [AspP yn brifo]]

However, at a later stage, when they begin to use overt forms of the copula, a null copula analysis may well be appropriate. Clearly further research is necessary here.

We should say something here about examples like those in (1a) and (5a), which do not resemble adult sentences. We would suggest that these are essentially a variant of the examples in (1b) and (5b) that contain *yn*. They seem to convey the same meanings as examples with *yn*. Moreover, we have some examples in the corpus of sentences containing the copula, a subject, and a non-finite verb with no preceding aspectual particle, for example the following:

(14) a. mae lori ffitio. (Alaw, 2;2.12)
is lorry fit
'The lorry fits'.

b. mae o gweithio rwan. (Dewi, 2;3.17)
is he work now
'He is working now'.

c. ma' car mynd yn garej. (Rhian, 2;3.2)
is car go in garage
'The is going into the garage'.

d. mae hwn mynd i lawr. (Rhys, 2;3.26)
is this go up
'This is going up'.

It is also worth noting that there is one situation in the adult language in which *yn* disappears. Parallel to (15a), we have not (15b), as we might

expect, but (15c).

(15) a. mae Gwyn yn canu.
is Gwyn in sing
'Gwyn is singing'.

*b. Yn canu mae Gwyn.
in sing is Gwyn.

c. Canu mae Gwyn.
sing is Gwyn
'Singing Gwyn is'.

It seems to us, then, that the examples in (1a) and (5a) can probably be assimilated to the examples in (1b) and (5b).

It seems quite likely that there are changes in the grammars of the children during the period covered by the database. It seems to us, however, that the main changes in the observed data are probably a result of the children's growing processing ability. A missing copula sentence obviously contains one less lexical item than a related sentence with an overt form of the copula. Thus, given the reasonable assumption that it is difficult for young children to produce sentences of more than a few words, it is likely that they will produce more missing copula sentences than adults. Moreover, given the reasonable assumption that young children's ability to produce complex sentences increases over time, it is likely they will produce fewer missing copula sentences and more sentences with an overt form of the copula. It seems to us, then, that the changes in the observed data are probably in part a reflection of changes in the children's processing ability. Clearly, however, further research is needed here.

Conclusions

We have been concerned in this paper with the development of finiteness in early Welsh as it appears in a corpus of natural speech from seven children recorded between the ages of 19 and 27 months. We have outlined the basic facts and also looked in a preliminary way at their implications. We have emphasized the fact that the earliest clausal utterances have no finite element and that such utterances continue to occur after the appearance of utterances with a finite element. We have also speculated that the changes in the observed data are in part a reflection of changes in the

children's processing ability.

Much remains to be done. In particular we need to look in more detail at both finite and finiteless sentences. In the case of the latter, we hope that it may be possible to determine whether different analyses are appropriate for early and late examples, at least with some of the children. We also need to investigate the possible role of processing ability more carefully. Finally we need to consider the implications of the data for proposals about 'root infinitives'.

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ACQUIRING SUBJECT AND OBJECT RELATIVES: EVIDENCE FROM IRISH

Helen Goodluck
University of Ottawa/
University of Ulster,
Jordanstown

Eithne Guilfoyle
Dun Laoghaire Institute
of Art-Design-Technology/
University of Calgary

Sile Harrington
Dun Laoghaire Institute
of Art-Design-Technology/
Trinity College Dublin

Many experimental studies have suggested that children acquiring various languages have more difficulty with relative clauses in which the head refers to the object position than those in which the head refers to the subject position. However, there is also some spontaneous speech evidence that object relatives may be acquired slightly before subject relatives. We report here on the acquisition of subject and object relative clauses by native Irish speaking children from Kerry. We show that while the children did produce some non-adult forms, they had adult-like control of both subject and object relatives. We discuss our study in the context of debates concerning whether a pronominal binding or a movement mechanism for relative clause formation has priority in first language acquisition.

Introduction¹

Relative clause formation has been the topic of intensive research in grammatical theory and language acquisition by children. In this paper, we focus on the distinction between relative clauses in which the head noun (*man* in the examples below) refers to the subject position in the relative clause as shown in (1), and relative clauses in which the head refers to the object position as shown in (2).

- (1) Sue met the man who/that ___ telephoned Fred.
- (2) Sue met the man who/that Fred telephoned ___.

Beginning with Keenan and Comrie (1977), research on the grammar of

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