

## VERB ALTERNATIONS IN MODERN WELSH

Alex Adams, Sarah Clarke, Annette Evans, Benjamin Flight, Alana Johns  
University of Toronto

### 1. Introduction

This paper investigates a verbal construction alternation found in Modern Welsh.\* Welsh has two types of simple present verbal constructions: a synthetic form, in which the tense and person information is expressed directly on the main verb, and an analytic form, in which the tense and person information is expressed periphrastically. While the synthetic form was used virtually exclusively in Old Welsh, the analytic form began supplanting the synthetic in Middle Welsh in a process of change that has continued diachronically to Modern Welsh (Mac Cana 1999, Skrzypiec 1999). (1a) below is a Middle Welsh sentence, in which the present tense is expressed through the use of a synthetic present-tense verb; in Modern Welsh, the same proposition is expressed analytically, as shown in (1b):

- (1) a. *Middle Welsh:*  
'Gwir a **dywedy**,' heb yr Arthur.  
Truly *part. speak.2s.pres* said the Arthur  
"Thou speakest true," said Arthur.'  
(BR 8.27)
- b. *Modern Welsh:*  
'**Rwy**t ti yn **dweud** gwir,' ebe Arthur.  
*Be.2s.pres* you in speak truly said Arthur.  
"You speak truly," said Arthur.'

This change has progressed to the point where the analytic construction is thought to have completely replaced the synthetic in Modern Welsh; recent analyses of this alternation (Rouveret 1996; Jones 2002) have claimed that the synthetic construction has been completely supplanted by the analytic construction to describe an action occurring at the moment of speech. However, we will propose, based on linguistic evidence, that Modern Welsh has a complex verbal system in which both the synthetic and the analytic forms are used. We will claim that the alternation between these two constructions is controlled by grammatical factors; in this paper, we will focus on the contribution of evidentiality. We will provide a syntactic account that posits an evidentiality feature that must be checked through movement to an articulated C system, following Rizzi (1997). As Roberts (2005) notes, the copular verb *bod* 'to be' is the only verb that is able to raise to the C system; thus, the analytic construction will be shown to be obligatory to express evidentiality, as only an

---

\* Unless otherwise stated, all Welsh examples come from Annette Evans, a native speaker of the North Walian dialect. All errors are the responsibility of the authors.

analytic construction permits the evidentiality feature to be checked. We will also comment, with King (1993) and Fife (1986), that the investigation of this topic and other features of Modern Welsh has been hampered by the tendency of linguists and Welsh specialists to focus on literary Welsh, while the spoken language is not as fully explored.

## 2. Previous Analyses

In Welsh, tense and person information can either be expressed directly on the main verb (i.e., synthetically), or through periphrasis (i.e., analytically). (2) exemplifies the synthetic present tense construction, while (3) shows the analytic present tense construction:

- (2) Cogini-af.  
bake-*Is.pres*  
'I'm baking.'
- (3) Rydw i yn coginio.  
be.*Is.pres* I in bake  
'I'm baking.'

Recent analyses by Rouveret (1996) and Jones (2002) have claimed that there is no alternation between the synthetic and analytic present tense forms when denoting a present-time event; that is, pairs of sentences like (2) and (3) above cannot be used interchangeably to describe the same event. Rouveret claims that the synthetic present tense can only describe a future or habitual event; he says that it "cannot have a specific present time interpretation, and disallows reference to a specific event" (p. 159). Jones says that the synthetic present is sometimes used to denote a present-time event, but that this use is heavily restricted; he claims that the analytic present tense is predominant, with only a handful of lexical verbs regularly using the synthetic present tense.<sup>1</sup> Thus, the accounts of Rouveret and Jones predict that the sentence in (2) above would never be used to describe a present-time event. (3) is the only available option to express the proposition denoted by the English sentence 'I'm baking'; (2) can only express the habitual or generic 'I bake.' In other words, Rouveret and Jones claim that the distribution of the synthetic and analytic present tense constructions in Welsh is the same as that of English: the analytic present tense is productively used to describe an event occurring at the moment of speech, while the synthetic present tense is only used to describe a future or habitual action, and cannot refer to a specific, present-time event.

## 3. Complexities of the System

While the previous analyses noted above claim that the synthetic present tense can only be used to describe a habitual or future action, we will present data from North Welsh that suggest that both the synthetic and the analytic forms are

---

<sup>1</sup> The two verbs that Jones cites as occurring in the present tense are *bod* 'to be' and *gwybod* 'to know.'

used in Modern Welsh to describe specific present-time events. Our data show that is a choice of construction; the use of one form over the other conveys a special meaning. In this section, we present our data, which demonstrate that both the speaker's evidence for the proposition and the grammatical person of the subject play a role in the choice of verbal form. We will connect our observations to some claims made about information sources in Jones (2002). We will further suggest that both sets of data indicate that the distinction between the analytic and synthetic constructions is one of evidentiality.

### 3.1 Data: The Role of Evidence

The speaker's degree of connection to the event described by the utterance (that is, the nature of his or her evidence for the proposition) can influence the choice of construction. When the speaker is a witness to the event denoted by the predicate, the analytic construction is used; when the speaker is aware of the event denoted by the predicate, but is not a witness to its occurrence, the synthetic construction is used.

- (4) a. Cysg-a-'r            baban  
       sleep-3*s.pres*-the baby  
       'The baby is sleeping (elsewhere).'
- b. Mae-'r            baban yn cysgu.  
       be.3*s.pres*-the baby in sleep  
       'The baby is sleeping (I see it).'
- (5) a. Rhed-a-'r            bachgen (y tu allan i).  
       run-3*s.pres*-the boy        outside  
       'The boy is running (outside).'
- b. Mae-'r            bachgen yn rhedeg.  
       be.3*s.pres*-the boy        in run  
       'The boy is running (I see it).'

(4a) and (5a) are used when the speaker has no direct evidence for the proposition expressed by the clause; they convey that the speaker is aware of the event, but does not have immediate evidence for its occurrence. In contrast, (4b) and (5b) entail that the speaker is a witness to the occurrence of the event expressed by the predicate.

There are several different factors concerning this evidence that can influence the choice of construction. It can be dependent on the strength of the speaker's evidence for the proposition; for example, consider (6a) and (6b) below:

- (6) a. Nofi-a-'r            ferch (yn y llyn).  
       swim-3*s.pres*-the girl in the pool  
       'The girl is swimming (in the pool).'

- b. Mae-'r ferch yn nofio.  
 be.3s.pres-the girl in swim  
 'The girl is swimming (I see it).'

The use of the synthetic construction in (6a) conveys that the speaker does not have strong evidence for the proposition expressed by the clause. This construction would be used if the girl were swimming in a large group of people and could not be distinguished in the crowd. (6b), in contrast, would be used only if the girl could be picked out from the group of people. Thus, (6b) conveys that the speaker has stronger evidence (in this case, visual) for the proposition.

Different types of evidence can determine the choice of construction as well. Knowledge that comes from sources other than direct sensory evidence can trigger the use of the analytic construction over the synthetic. Consider, for example, (7a) and (7b) below:

- (7) a. Cogini-a-'r bachgen gacen.  
 bake-3s.pres-the boy cake  
 'The boy is baking a cake.'
- b. Mae-'r bachgen yn coginio cacen (yn y wers).  
 be.3s.pres-the boy in bake cake in the lesson  
 'The boy is baking a cake (in the lesson).'

(7b) does not require the speaker to be a witness to the boy's cake-baking; it could be said if the speaker had some foreknowledge of the boy's planned activities for the day – for example, if his cooking class were scheduled to be baking cakes at that time. (7a), in contrast, conveys that the speaker is not a witness to the boy's action, nor does he or she have special information about the boy's activities; it suggests instead that the speaker assumes or believes that the boy is baking a cake, but does not have any real evidence to support this assumption.

All of the alternations discussed thus far are only valid for third person singular subjects; they do not exist when the subject is first or second person singular.<sup>2</sup> In almost all circumstances, a first- or second-person subject requires the use of the analytic present tenses; the use of the synthetic present tense is distinctly formal, and is often unacceptable. Thus, there is a contrast in grammaticality between the third-person singular synthetic construction in (8a) and the first-person singular synthetic construction in (8b) below:

- (8) a. Cogini-a-'r bachgen gacen.  
 bake-3s.pres-the boy cake  
 'The boy is baking a cake.'

---

<sup>2</sup> Plural constructions do not follow the same pattern as their singular counterparts. Number appears to be an additional factor in the choice of verbal construction; plural subjects of any grammatical person require an analytic present tense construction. The contribution of number is not explored in this paper.

- b. \*Cogini-af gacen.  
 bake-*1s.pres* cake.  
 [Intended] ‘I’m baking a cake.’
- c. Rydw i yn coginio cacen.  
 be-*1s.pres* I in bake cake  
 ‘I’m baking a cake.’

Both (8a) and (8b) are synthetic present tense constructions. (8a) has a third-person singular subject, while (8b) has a first-person singular subject. While (8a) is grammatical, (8b) is only acceptable with a habitual or generic interpretation and cannot be used to denote a specific event. Only the analytic construction in (8c) is acceptable when the subject is first-person singular.

In summary, our data suggest that there is a definite alternation between the synthetic and analytic present tenses; this alternation is dependent on both the nature of the evidence that the speaker has for the proposition expressed by the clause, and the person of the subject of the clause.

### 3.2 Information Sources - Jones (2002)

Jones (2002) makes some observations that are very similar to the conclusions drawn above. Jones claims that the source of information is relevant to Welsh verbal constructions. Specifically, he says that there is a direct correlation between the selection of a tense and the source of information of the proposition associated with the utterance; speakers may use the present (i.e., analytic<sup>3</sup>) tense if they feel that they have adequate evidence for the proposition expressed by the clause. Jones identifies four different types of evidence: present-time perception of a present-time situation, linguistic input, deduction, and stored knowledge. Any evidence that falls under one of these categories may be sufficient to trigger the use of the analytic present tense. The sentences in (9)-(12) below exemplify analytic constructions which are triggered by the various types of information sources:

- (9) *Present-time perception of a present-time situation:*  
 Mae-n bwrw glaw, sbia.  
 Be.*3s.pres-in* hit rain spy.*imp.2s*  
 ‘It’s raining, look.’

(Jones, 2002, p.24, his (11))

- (10) *Linguistic input:*  
 Mae-n bwrw glaw ym Madrid.  
 Be.*3s.pres-in* hit rain in Madrid  
 ‘It’s raining in Madrid.’ (*based on a weather report*)

(Jones, 2002, p.24, his (12))

---

<sup>3</sup> Because Jones (2002) does not acknowledge the use of the synthetic present tense to describe a specific present-time action, his reference to the present tense includes only the analytic construction.

- (11) *Deduction:*  
 Mae Mair yn gweithio yn y llyfrgell.  
 Be.3s.pres Mair in work in the library  
 ‘Mair is working in the library.’ (based on seeing Mair’s bicycle outside the door)  
 (Jones, 2002, p.24, his (13))
- (12) *Stored knowledge:*  
 Mae Mair yn Llundain heddiw.  
 Be.3s.pres Mair in London today  
 ‘Mair is in London today.’ (based on Mair’s leaving for London yesterday)  
 (Jones, 2002, p.24, his (14))

Both our field research and Jones’s observations point to the fact that information source is significant in choosing a verb form. Following Jones, we claim that when the evidence for the proposition expressed by the clause is sufficient, the analytic present tense is used; otherwise, the synthetic present tense must be used. Based on this, we propose that the distinction between the two constructions is one of evidentiality.

### 3.3 Evidentiality

Evidential expressions convey the source of the information expressed by a clause (Speas & Tenny 2005). Some languages obligatorily mark the verb for evidentiality; for example, in Makah, there are four verbal morphemes corresponding to four categories of information sources, as shown in (13) below:<sup>4</sup>

- (13) *Makah:*
- |                              |  |
|------------------------------|--|
| a. wiki-caxa- <i>w</i>       | ‘It’s bad weather (directly experienced).’ |
| b. wiki-caxa-k- <i>pid</i>   | ‘It looks like bad weather.’               |
| c. wiki-caxa-k- <i>qad’i</i> | ‘It sounds like bad weather.’              |
| d. wiki-caxa-k- <i>wa.d</i>  | ‘I’m told there’s bad weather.’            |
- (Speas & Tenny, 2005, p.2, their (1))

While in Makah the source of information is explicitly conveyed by the evidential morpheme, some languages make a less fine-grained distinction. Macedonian, for example, displays a two-way evidentiality contrast that is very similar to the distinction between the synthetic and the analytic constructions in Welsh; a sentence that expresses a proposition for which the speaker has evidence is unmarked, while a sentence that expresses a proposition for which the speaker does not have evidence bears a non-evidential morpheme (the so-called *l-form*). Consider the pairs of Macedonian and Welsh sentences in (14) and (15) below:

<sup>4</sup> It is interesting that these information sources show similarities with a subset of obligatorily noun-incorporating verbs in Inuktitut, which Johns (2005) analyses as predicate restrictors: ‘look like,’ ‘sound like,’ ‘smell like,’ and ‘act like.’

- (14) *Macedonian*:<sup>5</sup>
- a. Bebe-to spie-lo.  
baby-*def* sleep.3*s.pres.-l.form*  
'The baby is sleeping (but I don't see it happening; I don't claim any responsibility for this knowledge).'
  - b. Bebe-to spie.  
baby-*def* sleep.3*s.pres*  
'The baby is sleeping (and I see it happening in front of me).'
- (15) *Welsh*:
- a. Cysg-a-'r baban.  
sleep-3*s.pres*-the baby  
'The baby is sleeping (elsewhere).'
  - b. Mae-'r baban yn cysgu.  
be.3*s.pres*-the baby in sleep  
'The baby is sleeping (I see it).'

Both of the (a) examples indicate that the evidence for the proposition expressed by the clause comes from an outside source; the speaker does not have a direct connection to the event. The (b) examples convey that the speaker has clear evidence for the event expressed by the sentence; they can be said only when the speaker has a connection to the event.

Willett (1988) identifies four basic categories of evidentiality: personal experience, direct evidence, indirect evidence, and hearsay. These categories of evidentiality correspond to the information sources noted by Jones (2002) as being sufficient to trigger the use of the analytic construction; personal experience and direct evidence correspond to present-time perception, indirect evidence corresponds to deduction or stored information, and hearsay corresponds to stored knowledge. Thus, it is plausible to posit that evidentiality is a significant factor in determining the choice of verbal construction in Welsh.

#### 4. Analysis:

We can conclude from the observations noted in section 3 that the distinction between the synthetic and the analytic constructions in Welsh is one of evidentiality; now, we must determine how this evidentiality is formally represented and realized in Welsh. In this section, we present our syntactic account of the alternations described above. First, we explain how factors of grammatical person can be tied to information sources as another instantiation of evidentiality, and propose that evidentiality is a feature that is checked in an articulated C system. Next, we present our movement analysis; we explore the syntactic details of the movement of the copula to the C system to check this feature.

---

<sup>5</sup> Thanks to Linda Ristevski for providing this example.

#### 4.1 Evidentiality in Welsh

If we assume that evidentiality is a salient feature in Welsh syntax, we can use this to explain all the data presented in section 3.1. We observed above that the alternations described for the third person do not hold for the first or second person; while both the synthetic and the analytic present tense constructions are available for the third person, only the analytic is possible for the first or second person. We have also noted that the use of the analytic construction conveys a close connection between the speaker and the event, while the synthetic construction expresses the lack of a connection between the speaker and the event. When the subject of the sentence is one of the discourse participants (i.e., the speaker or the addressee), there is a necessary relationship between the speaker and the event. If the subject is the speaker (i.e., first person), then the speaker is directly involved in the event, and thus has a close relationship with it. If the subject is the addressee (i.e., second person), this implies a discourse relationship between the speaker and the subject (that is, the addressee) and, therefore, between the speaker and the event. Consider examples (16) and (17):

- (16) a. **Cogini-a-'r** bachgen gacen.  
 Bake-3s.pres-the boy cake  
 'The boy is baking a cake (I don't see it).'
- b. **Mae-'r** bachgen yn **coginio** cacen.  
 Be.3s.pres-the boy in bake cake  
 'The boy is baking a cake.'
- (17) a. \***Cogini-af** gacen.  
 Bake-1s.pres cake  
 [Intended] 'I am baking a cake (I don't see it?).'
- b. **Rydw** i yn **coginio** cacen.  
 Be.1s.pres I in bake cake  
 'I am baking a cake.'

Both (16a) and (16b) are grammatical because the subject is third person, and therefore there is no necessary relationship between the speaker and the event; the speaker can either be a witness to the event, in which case (16b) would be used, or not, in which case (16a) would be used. However, (17a) is pragmatically infelicitous because it conveys that the speaker has no evidence for his or her own cake-baking action. Only (17b) is grammatical; the evidential analytic construction is obligatory when the subject is a discourse participant.

Thus, both the verbal construction alternations for a third person subject and the lack of alternation for a first- or second-person subject can be attributed to evidentiality. The nature of first- and second-person subjects is inherently connected to the discourse event; this property overlaps with evidentiality, and has an effect on construction choice in Welsh, just as information source does.<sup>6</sup>

<sup>6</sup> A similar alternation can be found in Labrador Inuttitut, as discussed in Johns (1996) and Andersen & Johns (2005). In Labrador Inuttitut, the use of the indicative mood with

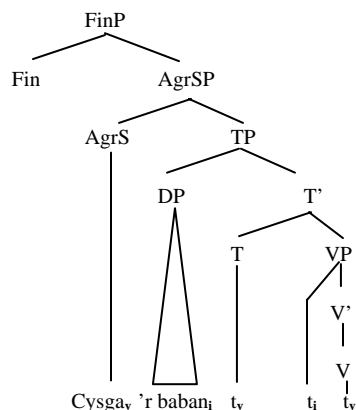


## 4.2 Movement to an Articulated C System

We assume an articulated C system following Rizzi (1997); there are numerous functional projections above the TP level in which discourse-related features are checked. Evidentiality is among these discourse features; thus, an evidential feature must move up to the C system in order to be checked for convergence at LF. We propose that in Welsh, this can only happen through periphrasis.

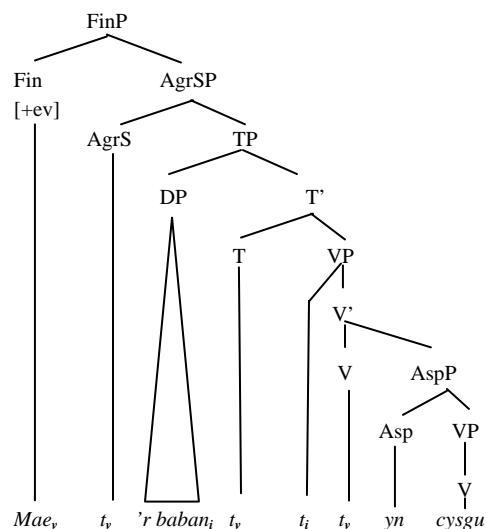
Roberts (2005) argues that Welsh lexical verbs do not raise into the C system. He presents evidence that verbs raise from V to T, then from T to AgrS; we see that they do not raise into the C system because they can co-occur with discourse particles that are situated in Fin, which heads the lowest C projection. Therefore, a lexical verb cannot host an evidentiality feature because it would be unable to check this feature in the C system. However, Roberts claims that the auxiliary verb *bod* ‘to be,’ which is the only Welsh auxiliary, is hosted in Fin; he argues that auxiliary verbs are cross-linguistically more mobile than lexical verbs, and that *bod* has special morphological properties that allow it to be in Fin. Because *bod* moves to the C system, it is able to host an evidentiality feature that is checked in Fin. If a sentence has no auxiliary, then there is nothing that can move to the C system; thus, a synthetic verb cannot check an evidentiality feature through movement to the C system. The derivations of synthetic (non-evidential) and analytic (evidential) sentences are given in (18) and (19) below:

- (18) Cysg-a-'r baban.  
 Sleep-3s.pres-the baby  
 ‘The baby is sleeping (elsewhere).’



a third-person subject of intransitive verbs serves only to convey vividness or immediacy. The alternative, which lacks this meaning, is the participial mood. In contrast, first and second person can only be found in the indicative mood. This is analogous to the Welsh alternation; in both languages, a discourse-participant subject obligatorily takes the more complex (and higher) verb form, while a non-discourse-participant subject may or may not take this form to convey the special meaning of evidentiality.

- (19) Mae-’r            baban yn cysgu.  
 Be.3s.pres-the baby in sleep  
 ‘The baby is sleeping (I see it).’



(Structures based on Roberts 2005, p.43)

In (18), the movement of the lexical verb *cysga* ‘to sleep’ cannot take it out of the inflectional system; it cannot move to Fin, and therefore cannot check an evidentiality feature. The analytic construction in (19) presents a higher syntactic configuration; because the auxiliary verb *bod* ‘to be’ can move to Fin, the evidentiality feature can be checked. Thus, only the analytic construction is able to convey evidentiality in Welsh.<sup>7</sup>

## 5. Literary vs. Oral Welsh

The linguistic literature on Welsh has tended to focus on the literary language rather than on the spoken language. Several linguists have commented on this tendency; in particular, King (1993) has observed that speakers of Welsh tend to dismiss their spoken language as “not proper Welsh” (p.3) as compared to the literary standard. He comments on the wide divergence of the oral and literary languages, and suggests that this divergence negates the validity of observations made about Welsh based on data from the literary standard. He notes that the literary verb forms are particularly problematic for Welsh speakers, as “much of

<sup>7</sup> Discourse particles can sometimes be used in synthetic constructions to create effects that are similar to those created by the analytic construction; Roberts (2004) places these discourse particles in Fin as well. For a more detailed discussion, see Roberts (2004).

the inherent structure of the system is so alien to spoken usage anywhere” (p.119). Fife (1986) also comments on the difference between spoken Welsh and literary Welsh, and says that it is “highly dubious” (p.179) to claim that facts about literary Welsh hold for spoken Welsh, as “literary Welsh is not a first language... and many Welsh speakers are not at all proficient in its use” (p.179).

This bias in favour of the literary language has likely hindered research on the spoken language; because of the prestige afforded to the literary standard, the spoken language has been underexplored. As a consequence, many noteworthy features of the spoken language have not been fully investigated. For example, spoken Welsh is typically thought to exclusively use the Aux-S-V-O construction in the present tense, but the evidence that we have presented here indicates that this is not the case. The alternation found in the present tense has not been fully investigated in the literature due to a lack of attention to the spoken language; it is very likely that this is true of many other interesting characteristics of Modern Welsh as well.

## 6. Conclusions

We have shown here that the distinction between the synthetic and analytic present tense forms in Welsh is not as simple as is traditionally assumed in the literature. While the analytic present tense construction is thought to have wholly replaced the synthetic construction to express a present-time event in modern usage, we have shown that both the synthetic and the analytic forms are used. The choice between the two constructions is dependent on evidentiality; the analytic construction conveys that the speaker has evidence for the proposition expressed by the utterance, and the synthetic construction conveys that the speaker lacks such evidence. The syntactic difference between the two constructions is the copular verb *bod* ‘to be’; unlike other verbs, *bod* is able to raise into the C system, which is where evidential features must be checked. Thus, only a clause with a copula is able to check an evidential feature; a sentence that conveys evidentiality must therefore be expressed analytically. In our analysis of the alternation of these two forms, we have considered only evidentiality; however, our data reveal that there are additional grammatical factors (such as the grammatical number of the subject, argument structure, etc.) that can influence the choice of construction. This strongly suggests that the Welsh verbal system is even more complex than we have shown here, indicating that there is a robust alternation between the synthetic and analytic constructions in Welsh.

## References

- Andersen, C. and A. Johns. Forthcoming. “Labrador Inuttitut: Speaking into the Future.” *Etudes/Inuit/Studies*.
- Fife, James. 1986. “Additional Facts About Welsh VPs.” *Journal of Linguistics*, 22, pp.179-186.
- Johns, Alana. 2005. “Restricting Noun Incorporation: Root Movement.” m.s. University of Toronto.

- . 1996. "The Occasional Absence of Anaphoric Agreement in Labrador Inuttut." Chapter in *Micro-Parametric Syntax and Dialect Variation*, ed. J. Black and V. Motapanyane. Amsterdam and Philadelphia: John Benjamins, pp.121-143.
- Jones, Bob Morris. 2002. "Tense and Aspect in Informal Welsh." Retrieved March 22<sup>nd</sup>, 2005, from <http://users.aber.ac.uk/bmj/Ymchwil/Tense/>
- King, Gareth. 1993. *Modern Welsh: A Comprehensive Grammar*. London, New York: Routledge.
- Mac Cana, Proinsias. 1999. "Syntax and Style in Middle Welsh Prose: Notes on Periphrasis and Epitaxis." *Celtica*, 23, pp.157-168.
- Rizzi, L. 1997. "On the fine structure of the left-periphery." Chapter in *Elements of Grammar*, ed. L. Haegeman. Dordrecht: Kluwer Academic Publishers, pp.281-337.
- Roberts, Ian G. 2005. *Principles and Parameters in a VSO Language: A Case Study in Welsh*. Oxford: Oxford University Press.
- . 2004. "The C-System in Brythonic Celtic Languages, V2, and the EPP." In *The Structure of CP and IP: The Cartography of Syntactic Structures, Volume 2*, ed. Luigi Rizzi. Oxford: Oxford University Press.
- Rooryck, Johan. 2001a. "Evidentiality Part 1." *Glottol* 5:4, pp. 125-133.
- . 2001b. "Evidentiality Part 2." *Glottol* 5:5, pp. 161-168.
- Rouveret, Alain. 1996. "Bod in the present tense and in other tenses." Chapter 4 in *The Syntax of the Celtic Languages: a Comparative Perspective*, eds. Robert Borsley and Ian Roberts. New York: Cambridge University Press, pp. 125-170.
- Skrzypiec, Andrzej M. 1999. "Periphrastic Temporal Constructions in the Indigenous Languages of the British Isles: Toward Diachronic Description." *Lingua Posnaniensis*, 41, pp. 149-153.
- Speas, Margaret. 2004. "Evidentiality, Logophoricity, and the Syntactic Representation of Pragmatic Features." *Lingua*, 114:3, pp.255-276.
- Speas, Margaret, and Carol Tenny. 2005. "Evidential Paradigms, World Variables and Person Agreement Features." To appear in *The Italian Journal of Linguistics*, Special Issue.
- Willett, Thomas. 1988. "A Cross-Linguistic Survey of the Grammaticization of Evidentiality." *Studies in Language*, 12, pp.51-97.