

PARTICIPANT BAR THEORY: A NEW SYNTAX THEORY

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Abstract

I endeavor to introduce, justify, and ultimately persuade for acceptance of a new syntax theory titled “Participant Bar Theory.” In order to understand the purpose of Participant Bar Theory, it is essential to have an understanding of the inherent issues of X-bar Theory. Also, an introductory-level understanding of the morphology and syntax of simple present tense and simple past tense of Welsh will serve the reader well, for Welsh will be the language with which I will defend Participant Bar Theory. This paper will also introduce a new term, which I have coined as “syntantics,” a blending of “syntax” and “semantics,” for the purpose of rationalizing Participant Bar Theory. This paper will show two syntactic trees (Figures 8 and 9) that illustrate the past tense. The tree for the present tense is currently being developed. This paper is merely a glimpse into the development of Participant Bar Theory as well as a catalyst for further investigation of this alternative syntactic theory.

Keywords: Participant Bar Theory, X-bar Theory, syntantics, syntactic tree, syntax, semantics, participant roles, Welsh syntax

Participant Bar Theory: A New Syntax Theory

Cymraeg (Welsh) belongs to the Brittonic branch of the Celtic languages. It is spoken natively in Wales. There are also some speakers in England and Y Wlaafa, a Welsh colony in the Chubut Province of Argentina. It is estimated that there are about 570,000 speakers in the world. The Welsh government announced in 2017 its plan to increase the number of Welsh speakers in Wales to one million by 2050, hence the name “Cymraeg 2050.” The plan consists of building a platform in society for Welsh to be spoken more and English less.

Welsh is a VSO (verb-subject-object word order) language and is also fairly analytic, which means that words and word order are used more often than affixation to convey meaning. Though Welsh is fairly analytic, there are cases where it is fusional, such as the particle *yn* and the definite article *yr* being orthographically represented and phonetically evidenced as being fused with the final vowel of the preceding word. This paper discusses simple, affirmative tenses, specifically the affirmative simple present and affirmative simple past. In Welsh, there are notable changes in sentence structure between present tense sentences and other tenses. Before giving examples of the morphological differences of verbs

in the present tense and past tense, I first present the syntactic differences between the present tense and past tense in Welsh. After an explanation of the differences in syntactic structure between present tense and past tense sentences in Cymraeg, I explain the morphological formation of verbs, provide definitions of subject pronouns, and discuss the relationship between the verb and subject. Finally, I will present a new syntactic tree structure, which I name “syntactic tree.” This structure, which is the visual representation of this new syntactic theory, which I name “Participant Bar Theory,” proposes a synthesis of verb-topicalization and participant acknowledgement in order to account for the VSO word order in all Welsh tenses, except for the present tense.

To present the basics of Cymraeg syntax, I will provide an example sentence that will be used as a reference for the discussion about all of the obligatory constituents, and optional constituents, of a standard, simple affirmative present tense sentence.

Figure 1

Dw	i'n	hoffi	r	coffi	poeth
Dw	i	'n	hoffi	'r	coffi
Dw	i	yn	hoffi	yr	coffi
Be	ISG.PRES	i	yn	PRT	like.INF
		I	like	the	coffee
		'm	liking	the	hot
		'm	in	the	process
					of
					liking
					the
					hot
					coffee.

This sentence has VSO word-order, and has a periphrastic construction in the form of “/bod/ + subject pronoun + /yn/ + verbnoun + definite article + noun: direct object + adjective.” *Dw* is the finite auxiliary that marks the present tense 1st person singular conjugation of the verb /bod/ (‘to be’).

There is a verb-subject agreement rule. Notice that the orthography represents a morphophonemic fusion between /i/ and /yn/ to form *i'n*. In addition, there is another similar instance between /hoffi/ and /yr/ to form *hoffi'r*. In the first instance, the 1st person singular pronoun is fused with /yn/, which does not have a literal translation. The particle /yn/ is situated immediately before a verbnoun in the present tense, but is not present in other tenses, as /yn/ is an obligatory constituent in the periphrastic construction formula. This rule is evidenced in the dataset below.

Figure 2

Noun: /hoff/ 'favorite' /pryn/ 'purchase' /cof/ 'memory'
Verboun: /hoff + i/ 'like' /pryn + u/ 'buy' /cof + io/ 'remember'

Welsh verbs, in the present tense, are primarily nonfinite in that they are derived from a noun, and are formed by adding various suffixes, such as -u, -i, and -(i)o, to create the verbnouns that can be found above in Figure 2. In the above example, hoffi is the nonfinite verbnoun that translates to 'like.' The suffix /-i/ attached to /hoff/ derives the verbnoun hoffi 'like' from the noun /hoff/ 'favorite.' Since sentences in the present tense contain nonfinite verbs, the auxiliary verb /bod/ must be conjugated to agree with the subject, and also to establish the use of the present tense. The verb /bod/, and the particle yn, are necessary to allow the subject to perform the action described by the verbnoun. This general structure is as follows: /bod/ + subject + /yn/ + verbnoun + etc..., where direct objects, adverbs, prepositional phrases, and other constituents may be found. It is reasonable to claim that the present progressive tense (i.e., 'I am liking the hot coffee') is the default tense as opposed to simple present tense (i.e., 'I like the hot coffee') due to the obligatory /bod/ 'to be' conjugation, though I will only refer to the tense as being either present or past. Regardless of which of these two tenses are determined to be the default, they can be translated in English in several ways, as demonstrated by the three translations found in the final line of Figure 1.

Referencing Figure 2 above, and Figures 3 and Figure 4 below, the verb prynu 'buy,' the verbnoun suffix /-u/ is attached to the noun /pryn/ 'purchase' to form the present tense. Forming the past tense in Welsh requires a conjugation of the verbnoun, a deletion of the conjugated form of /bod/, and a deletion of the particle, as seen in Figure 3. There are verb endings that attach to the stem of regular verbs in the past tense, and other conjugations of the irregular verbs, which will not be addressed here. There appear to be four regular-verb patterns, and they can be found in Figure 4 below. Figure 5 will show the regular-verb endings for the past tense. The conjugations of the irregular verbs must be learned as unique forms, as the conjugations are respective to the irregular verb, and do not follow a standard pattern. Once these verbs and verb patterns are understood, memorized, and can be recognized, the morphology of verbs should become less daunting than they initially appear.

Referencing Figure 6 below for subject pronouns, there are separate pronouns for each person and number. Since the verb in Welsh must agree with the subject, and does not have to agree with objects, verbs are conjugated with respect to the person and number of the subject.

Figure 3

Dw i'n prynu cig
 Dw i 'n prynu cig
 Dw i yn prynu cig
 Be.1SG.PRES 1SG in.PRT buy.INF meat
 'I buy meat. / I am buying meat. / I am in the process of buying meat.'

Figure 4

Prynais i'r cig.
 Prynais i 'r cig.
 Prynais i yn prynu cig
 Buy.1SG.PST 1SG the meat
 'I bought the meat.'

Figure 5

Four Regular-Verb Patterns:

- Attach the regular endings listed below to the stem if the stem ends in a consonant.
 Pryn
 'purchase' -> Prynais i
 'purchase' -> 'bought I'
 'purchase' -> 'I bought'
- Attach the regular endings listed below to verbs that end in a single vowel by removing the single vowel.
 Bwyta -> Bwytodd e
 'eat' -> 'ate he'
 'eat' -> 'he ate'
- Attach the regular endings listed below to verbs that end in a double vowel by removing the final vowel.
 Coginio -> Coginiais ti
 'cook' -> 'cooked you'
 'cook' -> 'you cooked'
- Attach the regular endings listed below to verbs that end in "-ed" or "-eg" by removing these two ending combinations.
 Rhedeg -> Rhedoch chi
 'run' -> 'ran you'
 'run' -> 'you ran'

Figure 6

Regular Verb Endings in Past:

1SG - /-ais/ 1PL - /-on/
 2SG - /-aist/ 2PL - /-och/
 3SG - /-odd/ 3 PL - /-on/

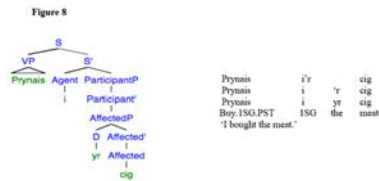
Figure 7

Subject Pronouns:

1SG - i 1PL - ni
 2SG - ti 2PL - chi
 3SG - e (he) / hi (she) 3PL - nhw

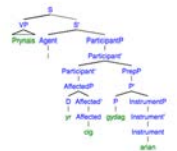
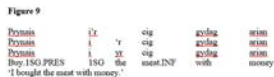
Since we have reviewed a brief introduction into the main morphosyntactic features of Welsh as well as into the features of which this new theory has been designed to accommodate, I present the theory below.

Participant Bar Theory, which I shall henceforth call PBT, foregrounds the importance of semantic influence on syntax in general, thereby allowing for a fuller understanding of the key influence of certain semantic elements on Cymraeg specifically. PBT has been derived from X-bar Theory, and it functions in a similar manner to X-bar Theory. Figure 8 below will illustrate PBT applied to the simple past tense.



The S in this syntactic tree represents the sentence. Since the VP, which represents the verb phrase, branches from the S, it is separated from the remaining components of the sentence.

PBT consists of a participant phrase (ParticipantP), an agent (Agent), and an affected phrase (AffectedP). Participant can be understood to be a word that fills a semantic role. The final label in the above syntactic tree is D, which represents the determiner. The participants that we will observe in this paper are agent, affected, and instrument participants. Agents are usually a person or an animal that performs the action that is being described in the sentence, such as /i/ 'I' in Figure 8. Objects are usually the affected, as the affected is the thing upon which the action is performed, and this action typically changes the state of that thing in some way. The affected in Figure 8 is cig 'meat', and it went from a state of not being purchased, to a state of being purchased. The agent performed the action of "buying/purchasing" the affected object. The sentence in Figure 8 does not contain an instrument, so Figure 9 below will consist of the same sentence as Figure 8, but with an instrument added at the end.



An instrument participant is the object or tool that with which the action is performed. In Figure 8, the sentence does not include an instrument, but the instrument "money" is included in Figure 9. Notice that a preposition accompanies the instrument. The instrument phrase (InstrumentP) is designed to lead to an Instrument', from which the prepositional phrase (PP) is branched. In X-bar Theory, the PP would have one branch from the P', and another for the noun phrase (NP). PBT does not contain a NP, as the inherent semantic-influence nature of the tree only acknowledges participant roles. Since an InstrumentP in PBT functions like a PP in X-bar Theory, the instrument phrase is the equivalent to an adjunct phrase in X-bar Theory. An adjunct phrase is essentially an optional phrase in the sentence that provides additional information (i.e., how, when, where, etc.) about the event that occurs in the sentence.

Now that we have seen two syntactic trees for PBT, we can discuss the justification for this newly proposed theory. The verb phrase (VP) appears as a specifier branching from S, which stands for syntactics in PBT. This allows for the constituents that function as the participant roles to be clumped together in the sentence in order to conform to the logical formula(s) of participants in the VSO sentence structure (these logical formula(s) may be found in Figure 10). The verb provides information pertaining to the action that the agent will perform upon the affected, so it appears before the participants to provide either sufficient or necessary background information and context clues. What I mean by "sufficient or necessary" is that, for example, in Figure 8 and Figure 9, the verb is 'bought', and money is the most commonly used medium of exchange. Since 'bought' implies that the purchasing was done with 'money', 'money' need not be included in the sentence, which is why the sentence in Figure 9 may seem strange.

In any event, Welsh, except for the present tense, experiences verb-topicalization, which simply means that the verb appears first in the sentence. Therefore, the following logical formulas hold for all simple non-present tense, affirmative sentences in Cymraeg.

Figure 10

Logical Formula for Figure 5b:	Logical Formula for Figure 8:
Bwytoodd c 'he' cig	Prynais i 'r 'the' cig
'ate' 'he'	'bought' 'I' 'the' 'meat'
Verb Agent	Verb Agent D Affected
Verb = Agent	Verb + Agent + Affected
Logical Formula for Figure 9:	
Prynais i 'r 'the' cig gydag arian	
'bought' 'I' 'the' 'meat' 'with' 'money'	
Verb Agent D Affected Prep Instrument	
Verb = Agent + Affected + Instrument	

Notice that these three formulas illustrate the location of each participant in an intransitive sentence as well as two transitive sentences, where one contains an instrument. The tree will have an identical aesthetic in all affirmative tenses, except the affirmative present tense. The reason that the present tense is different is due to its periphrastic construction, which is the causation for the necessity of the verbnoun, and the bod + subject pronoun + yn + verbnoun structure.

In this paper, we have seen how sentence structure in Welsh differs between the periphrastically-constructed present tense and the past tense. We also learned three ways to derive verbnouns from nouns, four ways to conjugate regular verbs in the past tense depending on the morphology of the root (Figure 6), the different subject pronoun forms (Figure 7), verb-subject agreement, and two syntactic trees of PBT applied to the simple past tense (Figures 8 and 9). Finally, we discussed verb-topicalization and participant acknowledgement as specific aspects of Welsh, justifying the proposal of PBT as a new theory. As aforementioned, this paper is severely limited in showing and expanding upon this developing theory, but it does provide background into Welsh morphology and syntax, and outlines the main new theory,

idea of the new theory, which is the endeavor to ultimately remove movement and transformation in syntactic trees.

There is a great deal of further research to do in this area as well as many vital questions that must be addressed, including: (i) Is there historical linguistic evidence that semantics influences syntax in certain languages; (ii) Is there semantic influence on the syntax of Brittonic languages; (iii) What would the PBT look like when applied to the present affirmative tense; (iv) How would a more complex agent phrase be constructed in a syntactic tree; and (v) Could PBT apply to any word order? I believe that PBT provides an alternative way of thinking about syntax in all languages; Welsh is merely an example. The simplest argument for this belief is that whereas subject-verb-object (SVO) languages place initial emphasis on *who/what* is the agent, next on which action the agent will perform, and then finally upon *who/what* will this action be performed, object-subject-verb (OSV) languages place initial emphasis on the affected, next on *who/what* will influence the affected, and finally on the action that will be performed. Linguistics is littered with abstract concepts, and some of those abstract concepts can only be discovered and unlocked via abstract thought. PBT, if successful, may very well help linguists to uncover hidden secrets that lie in this beautiful field, such as the significance of syntactics.

Author Note

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Further Reading

- Bitesize. (n.d.). Welsh Second Language (WJEC). Retrieved from <https://www.bbc.co.uk/bitesize/subjects/z8qmhyc>.
- This website provides helpful videos and exercises by which a sufficient introduction to Welsh morphology and syntax may be obtained.
- Borsley, R., Tallerman, M., & Willis, D. (2007). *The Syntax of Welsh*. Cambridge: Cambridge University Press. doi:10.1017/CBO9780511486227.004
- This book, in tandem with “Syntax: A Generative Introduction” by Andrew Carnie, provides an understanding that is more than sufficient for the scope of this paper.
- Carnie, A. (2012). *Syntax: A Generative Introduction* (3rd ed.). John Wiley & Sons.
- This book provides a detailed and comprehensive overview of the fundamentals of syntax and serves as a source by which the necessary fundamental understanding of X-bar Theory may be obtained
- Hurfurd, J. R., Heasley, B., & Smith, M. B. (2007). *Semantics: A Coursebook*. (2nd ed.). Cambridge University Press.
- This book provides a detailed overview and a fundamental understanding of semantics and pragmatics. An explanation about participant roles as it pertains to the primary scope of this paper can be found in unit 20 of part 5.

Appendix

Shang, M. (2011). *Syntax Tree Generator*. Retrieved December 5, 2018, from <http://mshang.ca/syntree/>.

The above citation is for a website that I found with a quick Google search. To see how the syntactic trees found in this paper were built, the below codes have been provided. Copy and paste them into the box on <http://mshang.ca/syntree/>, and the trees will appear. Learning how the codes function in the generator is not terribly difficult, and the automatic color-coding assigned by the generator is convenient.

Syntax Tree Generator (Shang, 2011) Code for Figure 8:

```
[S [^VP Prynais][S'[Agent[i]][ParticipantP[Participant'AffectedP[D[yr]][Affected'Affected[cig]]]]]
```

Syntax Tree Generator (Shang, 2011) Code for Figure 9:

```
[S [^VP Prynais][S'[Agent[i]][ParticipantP[Participant'Participant'AffectedP[D[yr]][Affected'[Affected[cig]]]][PrepP[P[gydag]][InstrumentP[Instrument'Instrument[arian]]]]]
```