

The Metrical Mind

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Outline

Overview

Evolution

Theory

English

Typology

Welsh

Rhyme

Cynghanedd

Analysis

Conclusion

Poetry

There are strange things done in the midnight sun
By the men who toil for gold;
The Arctic trails have their secret tales
That would make your blood run cold;
The Northern Lights have seen queer sights,
But the queerest they ever did see
Was that night on the marge of Lake Lebarge
I cremated Sam McGee.

The Cremation of Sam McGee, Robert Service

Poetry and peacocks

“From a pragmatic biological view point, art and music seem like pointless wastes of energy. Human morality and humor seem irrelevant to the business of finding food and avoiding predators” (p.2).

“I shall argue that the most distinctive aspects of our minds evolved, largely through the sexual choices our ancestors made” (p.3).

Miller, Geoffrey F. 2000. *The mating mind : How sexual choice shaped the evolution of human nature*. New York: Doubleday

Pride and Prejudice

“Of a fine, stout, healthy love it may. Everything nourishes what is strong already. But if it be only a slight, thin sort of inclination, I am convinced that one good sonnet will starve it entirely away.”

Elizabeth

Pride and Prejudice, Jane Austen

Another view

Hypothesis: poetry involves a repeated count: rhythm. Certain units of language processing and grammatical organization are available for this: moras, syllables, stresses/feet.

Rhyme and alliteration clarify the count/rhythm.

Another view

Hypothesis: poetry involves a repeated count: rhythm. Certain units of language processing and grammatical organization are available for this: moras, syllables, stresses/feet.

Rhyme and alliteration clarify the count/rhythm.

- ▶ This gives us most kinds of regulated verse.
- ▶ Why is Welsh so weird?

Service again

There are strange things **dóne** in the mídnight **sún**
By the mén who móil for **góld**;
The Árcctic **tráils** have their sécret **táles**
That would máke your blóod run **cóld**;
The Nórthern **Líghts** have séen queer **sígths**,
But the quéerest they éver did **sée**
Was that níght on the **márge** of Láke Lebárge
I crémated Sáam McGée.

- ▶ 4+3 beats per “line”.
- ▶ 1 or 2 stressless syllables between beats or at beginning of line.
- ▶ Beats are overt, making lines easier to identify.
- ▶ Rhyming line-pairs and half-lines.
- ▶ Is rhyme necessary because the length of lines varies?

The Second Coming, William Butler Yeats

Túrning and túrning in the wíd(e)ning gyre
The fálcon cannot hear the fálconer;
Things fall apart; the céntre cannot hold;
Mere ánarchy is loosed upon the world,
The blood-dimmed tide is loosed, and everywhere
The céremon(y) of ínnocence is drowned;
The best lack all convíction, while the worst
Are full of pássionate inténsity.

- ▶ 10 syllables per line.
- ▶ No rhyme requirement.
- ▶ Restrictions on stress, enhancing the perception of the line itself, and of the line as a sequence of five two-syllable units.

Cleanness, anonymous

[k]lánnesse who so [k]ýndly	[k]ówþe coménde,
& [r]ékken vp all þe [r]ésounz	þat ho by [r]í3t áskez,
[f]áyre [f]órmez my3t he [f]índe	in[f]órþering his spéche,
& in þe [k]óntrare, [k]árk	& [k]ómbraunce húge.

Whoever can praise cleanness as it deserves,
And count up all of the arguments that it claims by right,
Fair examples might he find in furthering his speech;
But in doing the opposite, difficulty and great trouble.

- ▶ 4/5 stresses per line
- ▶ All beats but the last alliterate.
- ▶ Alliteration thus marks beats and marks lines.

Properties of meter

- ▶ Syllables or stresses/beats are counted to define units like lines.

Fabb, Nigel, and Morris Halle. 2008. *Meter in poetry: a new theory*.
Cambridge: Cambridge University Press

- ▶ Rhyme or alliteration are used to mark units like lines.

Fabb, Nigel. 1999. Verse constituency and the locality of alliteration.
Lingua 108:223–245

Welsh poetry

Many different kinds of Welsh poetry. We focus on the *cywydd* [kəwið] form.

- ▶ 7 syllables per line.
- ▶ Pairs of lines rhyme.
- ▶ **All** lines must exhibit *cynganedd* 'harmony' [kəŋhánεð].

A Welsh Poem

Yr wybrwynt, helynt hylaw,
Agwrdd drwst a gerdda draw,
Gŵr eres wyd garw ei sain,
Drud byd heb droed heb adain.
Uthr yw mor eres y'th roed

O bantri wybr heb untroed,

A buaned y rhedy
Yr awr hon dros y fron fry.

Sky-wind, unhindered course,
mighty commotion passing yonder,
you are a harsh-sounding minstrel,
world's fool without foot or wing.
It's amazing how wondrously
you were sent
from the pantry of the sky
without any feet,
and how swiftly you run
now across the hilltop on high.

Y Gwynt, 'The Wind', Dafydd ap Gwilym

Rhyme

Yr wybrwynt, helynt **hýlaw**,
Agwrdd drwst a gerdda **dráw**,
Gŵr eres wyd garw ei **sáin**,
Drud byd heb droed heb **ádain**.
Uthr yw mor eres y'th **róed**
O bantri wybr heb **úntroed**,
A buaned y **rhédy**
Yr awr hon dros y fron **frý**.

Cynghanedd in the wild

Yr wýbrw ^{red} ynt, h ^{red} élynt h ^{red} ýlaw,	sain
Agwrdd dr ^{red} wst a ger ^{red} dda dr ^{red} áw,	croes
G ^{red} ŵr eres wýd gar ^{red} w ei sáin,	croes
Drud byd héb droed heb á ^{red} dain.	croes
U ^{red} thr ýw mor eres y' ^{red} th róed	traws
O ban ^{red} tri wýbr heb un ^{red} tróed,	croes
A buá ^{red} ned y rhé ^{red} dy	llusg
Yr awr h ^{red} ón dros y fr ^{red} ón fr ^{red} ý.	sain

^{red}	line-internal rhyme
^{blue}	alliteration in first half
^{orange}	alliteration in second half
tiebar “ ”	caesura (break)

Cynghanedd lusc

A buá**ned** | y rhé**dy**

- ▶ Line must end in a polysyllabic word.
- ▶ The penult of the line rhymes with the final syllable of some previous word. (Notice that the line-penult rhyme isn't a constituent.)
- ▶ Those two words are “emphasized”.
- ▶ No alliteration is necessary.

Cynghanedd groes

Agwrdd drŵst | a gerdda dráw,

- ▶ The line is divided into two parts.
- ▶ The two parts are anchored by “emphasized” syllables in words at the right edges.
- ▶ All consonants preceding the first emphasized syllable are repeated in the same order before the second emphasized syllable. (Certain consonants are not counted in any cynghanedd: [h,w,y].)

Cynghanedd draws

Uthr ýw | mor eres y'th róed

Just like the previous case, cynghanedd groes, except that the second half may begin with some number of unpaired consonants.

Cynghanedd sain

Yr awr h**ón** | dros y fr**ón** | fr**ý**.

- ▶ The line is divided into three spans, with an “emphasized” word at the right edge of each.
- ▶ The first two spans are linked by final rhyme.
- ▶ The second and third spans are linked by more limited alliteration. The consonants that precede the emphasized syllable in the final word must be the final consonants preceding the emphasized syllable of the second span.

Can we make sense of this?

- ▶ Why is this system so complex?
- ▶ Can we make sense of the particular complications that cyghanedd exhibits? (Not today.)
- ▶ In particular, can we make sense of the extraordinary alliteration facts?

Technical analysis of alliteration

- ▶ We define a consonantal melody, much as in Semitic morphology, e.g. as in Arabic [McCarthy(1981)].
- ▶ We define a correspondence relation between the half-lines [McCarthy and Prince(1995)].
- ▶ We require identity of the consonantal melodies, e.g. as in Hebrew reduplication.

Ussishkin, Adam. 2002. The inadequacy of the consonantal root: Modern Hebrew denominal verbs and output–output correspondence. *Phonology* 16:401–442

Bat-El, Outi. 2006. Consonant identity and consonant copy: The segmental and prosodic structure of Hebrew reduplication. *Linguistic Inquiry* 37:179–210

Arabic morphology

- a. **kataba** 'he wrote'
- b. **kattaba** 'he caused to write'
- c. **kaataba** 'he corresponded'
- d. **takaatabuu** 'they kept up a correspondence'
- e. **ktataba** 'he wrote, copied'
- f. **kitaabun** 'book (nom.)'

There are other language domains than poetry where the consonants matter.

Hebrew

xam	'hot'	ximem	'to heat'
xamuc	'sour'	xamcic	'sour grass'
hed	'echo'	hidhed	'to echo'
daf	'page'	dafdefet	'paper pad'
lax	'damp'	laxluxi	'slightly damp'

There are other language domains than poetry where an identity requirement holds of spans of consonants.

Confirmation

- ▶ A sequence of identical consonants may count as identical to a single consonant.
- ▶ In Arabic morphology, it is possible for a single root consonant to correspond to two surface positions, e.g. *kataba* corresponds to *kattaba* and *muktaabib*.
- ▶ We expect the same thing to be possible in cyghanedd.

Gŵr eres wýd | garw ei sáin,

More examples

- ▶ drwg y gwéd^{da} | dragwéid^{di} (1.107)
- ▶ Sul éⁿw | ddisal^w olé^uni (4.5)
- ▶ gwedi dár^{ff}o | gwaw^d ór^{ff}wyll (5.61)
- ▶ ymen^yn gw^yn | am un gáⁱr (25.23)

Cited by Rowlands, E.I. 1976. *Poems of the cywyddwyr*. Oxford: Oxford University Press.

Is cyghanedd special?

There are no other poetic systems with such extreme alliterative requirements.

- ▶ That there is alliteration is expected.
- ▶ That alliteration functions as it does, to demarcate the line and establish units within the line, is expected.
- ▶ Alliterative cyghanedd can be treated with orthodox grammatical machinery.
- ▶ But cyghanedd is still at a poetic extreme.
- ▶ Why?

Factors that make Welsh poetry special

- ▶ Consonant mutation: the grammar requires special attention be given to consonants.
- ▶ Praise poems for the nobility.
- ▶ Court poets.
- ▶ Eisteddfodau

Consonant mutation

Word-initial consonants change in systematic ways in different morphosyntactic contexts.

word	gloss	'my'	'his'	'her'
pen [pɛn]	'head'	fy mhen [ə ^h mɛn]	ei ben [ibɛn]	ei phen [ifɛn]
tad [tad]	'father'	fy nhad [ə ^h had]	ei dad [idad]	ei thad [iθad]
ci [ki]	'dog'	fy nghi [ə ^h ɲhi]	ei gi [igi]	ei chi [iχi]
barn [barn]	'opinion'	fy marn [ə ^m marn]	ei farn [ivarn]	ei barn [ibarn]
dant [dant]	'tooth'	fy nant [ə ⁿ nant]	ei ddant [iðant]	ei dant [idant]
gair [gayr]	'word'	fy ngair [ə ^ŋ ayr]	ei air [i ₋ ayr]	ei gair [igayr]

The big picture

- ▶ Welsh poetry makes use of the same raw machinery as other poetry: meter, rhyme, alliteration.
- ▶ The grammatical system of Welsh grants consonants a special status.
- ▶ The sociolinguistics of Welsh poetry encourages extreme ornamentation.
- ▶ Grammatical theory provides sufficient technology for extended alliteration.
- ▶ Hence: cynghanedd.

The theory

- ▶ Rhythm, the repetition of sequences, is central to poetry.
- ▶ Certain units can be counted, e.g. syllables, quantity, and stresses.
- ▶ Repetition—rhyme and alliteration—can be used to enhance rhythmic units.
- ▶ Sociolinguistic variables can intrude to exaggerate these properties.

Grist for the experimental mill

We already do rating tasks in our lab for nonsense words. We could do similar experiments with candidate lines of poetry.

- ▶ Counting the uncountable.
- ▶ Repeating the unrepeatable.

Cynghanedd and the world

- ▶ Poetry generally does not require an audience: *Stealing Beauty*.
- ▶ Poetry generally does not contribute to the survival, power, sex appeal of the individual: William Carlos Williams, Wallace Stevens, etc.
- ▶ However, poetry can be used for those purposes and, when it is, its general properties can be exaggerated: cynghanedd.