

At The University of Salford I had the opportunity of putting together a research project which was part of an active area of study: the etymology of Charles Rely Beard’s historical dictionary of arms, armour and fashion. Using exclusively online tools made available by the university, I was able to piece together a timeline of the words use from 1390 until present day and use that data to track how the word has ‘travelled’ as speakers have colonised new ground and passed the word down through generations. Though the data from Beard’s work was merely a word, date, and definition scrawled on a piece of paper, it was a keystone in terms of leading to evidence of the words past and future. The whole project reflects on the thorough research Beard conducted, as well as a lesson for budding etymologists: a quote does not merely need to paraphrase one’s definition of a word, it can be much more – in this case, a bookmark to a particularly important chapter of the word’s ‘lifetime’.

The word I researched was **rifle**. A timeline of the instances of the word appearing in texts is below:

1390	1459	1584	1590	1666	1746	1775	1856	1861	1828	1928
Confessio Amantis completed; contains <i>ruyflep</i>	Registrum Cancelarii Oxoniensis contains <i>ryfle</i>	David Calderwood, a Scottish Historian writes <i>rifle</i>	By the end of ME period, <i>rifle</i> , <i>rifl'çe</i> , <i>rifelin</i> , <i>riful</i> , <i>ruiflen</i> all used in various texts	Samuel Shaw uses <i>rifle</i> in one of his sermons	Treat. Artillery	On June 11th, 1775, John Adams writes to Abigail Adams about <i>rifle</i>	Crimean War - won on the advantages of the rifle	American Civil War - won on the advantages of the rifle	Noah Webster publishes American Dictionary of the English Language including <i>rifle</i>	Noah Webster publishes American Dictionary of the English Language including <i>rifle</i>

The opportunity to teach metalinguistic jargon passes no linguist, so I will briefly outline one of the most common ways speakers of a language change the meaning of a word (one which will be familiar to English speakers) through the process of **conversion**. **Conversion** is the creation of a new word by changing the grammatical class it belongs to. Sometimes this will change the pronunciation of a word through a stress shift from one syllable to another, other times the pronunciation will stay the same. For example the phrases “She gave me a *look*.(noun)” verses “I will *look*.(verb) everywhere” both use the word *look* but by the nature of different grammatical classes, the words have different senses (meanings in language). More examples are provided:

I will <i>book</i> .(verb) your appointment.	Your <i>book</i> .(noun) is on the kitchen table.
I need to <i>water</i> .(verb) the plants.	The plants need <i>water</i> .(noun).
Could you <i>schedule</i> .(verb) a massage for me?	I need to check my <i>schedule</i> .(noun)
<i>Finding</i> .(verb) the right word was difficult.	Beard led us to an interesting <i>finding</i> .(noun)

The finding which took the most searching was the evidence that there was an association with the verb *rifle* to the *rifle musket*. It was only explicitly stated in a textbook of historical armaments which described in detail that the verb *rifle* expressing motion created the coil-like interior of the musket. Then, as *muskets* gradually became dated weapons warranting their own name, the word dropped off of *musket rifle* to simply become *rifle*.



French Rifle (1803) from Royal Armouries Museum in Leeds

Using technology which is available today, we can study the frequency of a particular word's usage or compare it across English speaking populations using corpora. Unlike dictionaries, corpora provide insight that is based off of analysing frequencies of occurrence. This is beneficial in the instances where a dictionary author may have added a personal bias or regional meaning to a definition instead of gathering information about how it is used across a large population. Beard, like others of his time, would have conducted this type of research manually, which would have been a painstaking effort usually using file cards and drawers like Sir James Murray (of *The Oxford English Dictionary*) would have done in a scriptorium. Now, through the use of computer software it can be done in seconds. In contemporary English, we can compare the word *rifle* in British text versus American text or by noun versus verb forms using corpora. Although they vary in size, using normalized frequency analysis of the British National Corpus (BNC) versus the Corpus of Contemporary American English (COCA) we can compare how often each grammatical form is used and which corpus contains a higher normalised frequency. The results of searching for all verb forms versus all noun forms of the word *rifle* in both the BNC and the COCA revealed the following: The verb *rifle* is used more in the BNC than in the COCA. The frequency of *rifle* in the BNC resulted in 0.72 instances per million words whereas the COCA contained only 0.034 per million words (there were over 21 times more instances of *rifle* as a verb in the BNC). The noun *rifle* (like a gun or musket) appears more in the COCA than in the BNC. The frequency of the noun *rifle* is 18.43 per million words in the COCA compared to 10 per million words in the BNC (over 1.8 times more instances of the noun *rifle* in the COCA).

my face. And I didn't hear the bullet leaving the	rifle	. One moment I was revelling in the astonishment of being alive
and brutality to enforce the hand-over. Witnesses told of beatings with	rifle	butts and sticks and the use of bayonets and guns, he
his landing window, he shot towards my wife with an air	rifle	and I reported him to the police. I put up an
leaks. Darryl Chapman, 29, is accused of possessing three	rifle	magazines, and the other three — Leslie Wheeler, 24,
security forces in west Belfast, and of possessing an AK 47	rifle	and ammunition with intent to endanger life. Daniel Joseph McBrearty,
next thing, someone was prodding me in the ribs with a	rifle	butt, and a voice was saying, "Come on,
shout in two hours' time.' Mick picked up his	rifle	and the mess tins and made his way towards the house.
3 Commando, flares were going up, followed by very rapid	rifle	and machine gun fire. The German Spandaus with their very fast
shoulder, he whispered, 'Right, Piper. Get your	rifle	sights on that lot.' The three figures were now almost

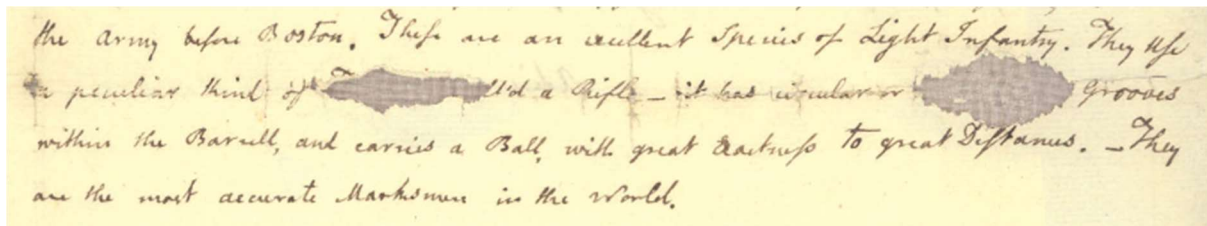
An example of a search for instances of the word rifle in the British National Corpus

What was most interesting for me as a student was playing 'armchair detective' scrolling through all the resources at hand through access provided by the university. Most of the research was done using the *Oxford English Dictionary Online* and the *Middle English Dictionary Online*. The process led me to appreciate what a rich but time-consuming activity Charles Rely Beard's work must have been getting access to so many different types of text, including personal letters, and organising it in a corpus before the digital age. Through all of his work compiling, Beard then chose the most poignant example of *rifle* to include in the definition which was the basis for my research. It is exciting to imagine what research projects await other scholars of language or technology using quotes or definitions which Beard has compiled. For a word which has persevered through English to be in consistent and relatively frequent in use, there was still so much to learn about the word *rifle* which Beard's work and words paved the way for.

The musket was introduced at the beginning of the Early Modern period in the year 1530. The musket's ability to injure at a distance would completely change the way that wars were fought for years to come, but it had its setbacks. The success of battling with muskets could be affected by the weather; if it was a wet or windy day, a musket would be difficult to reload as the gunpowder was loose and needed to be manually packed in with pellets. Around the turn of the 19th century, a

Scottish clergyman invented a bullet with fulminate of mercury that could detonate on impact. Another issue with muskets was the aim. By innovating the barrel with internal grooves designed to reduce air resistance, the guns could fire much more accurately (O'Connell, 1989, p. 191). These two innovations to artillery changed the musket significantly, and because some countries had the wealth for innovation and some did not, there was a disparity in technology, and therefore power. Because of the fact that muskets and the newer muskets were entirely different weapons being referred to, there also needed to be a new name. The fact that a *rifle* tool created the grooves in this newly innovated barrel, this type of weapon started being referred to as a *musket rifle* (Proffitt, 2017, *rifle*).

It is at this point we can refer back to Beard's entry, and the only quote he provides for *rifle*: "They use a peculiar kind of musket called a rifle". This quotation is from a letter sent from John Adams to Abigail Adams on the 11th of June 1775. In it, John announces to Abigail that the "generous and brave George Washington" has just been appointed to be the General of the American Army (Adams, 1775). It is the line "They use a peculiar kind of musket call'd a Rifle -- it has circular or [. . .] Grooves within the Barrell, and carries a Ball, with great exactness to great distances" which Beard has written in his entry. The OED also includes this letter in *rifle* (n.3 2.a.). The musket rifles he is referring to were manufactured in Springfield, Massachusetts which would go on to manufacture a series of Springfield Rifles to be used into the Second World War (Scarлата, 2012). From 1880 until present day, the shortening of "musket rifle" to "rifle" can be seen through quotations from American letters and novels (Proffitt, 2017, *rifle*). The American identity grew even more autonomous after the War of Independence in 1776, and although many letters would still be sent across the Atlantic Ocean, there was a shift in identity as Americans gained sovereignty (Beal, 2004, p.10). The Crimean War and American Civil War in 1856 and 1861 respectively were when these new rifles were used almost exclusively (O'Connell, 1989, p. 191).



Letter from John Adams to Abigail Adams, 11 - 17 June 1775 (see printed below)

They have voted Ten Companies of Rifle Men to be sent from Pensylvania, Maryland and Virginia, to join the Army before Boston. These are an excellent Species of Light Infantry. They use a peculiar Kind of [. . .] [call'd] a Rifle -- it has circular or [. . .] Grooves within the Barrell, and carries a Ball, with great Exactness to great Distances. They are the most accurate Marksmen in the World.

The particular quote Beard chose did not, as I first thought, contain merely the information of a word, date, and definition; it provided a synchronic snapshot of the precise time this word underwent the biggest change of its 'lifetime' so far. Suffice to say that calling this the final definition of the noun *rifle* would be pulling the trigger too soon. Time will tell if this word will have another sense someday, and if that is the case then future etymologists will have Charles Rely Beard to thank.

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