THE HISTORY OF ENGLISH PODCAST TRANSCRIPTS

EPISODE 4: A GRIMM BROTHER RESURRECTS THE DEAD (...LANGUAGE)

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Welcome to the History of English podcast – a series of podcasts about the history of the English language. In this episode, we going to look at how a fairy tale collector helped to resurrect a dead language. Specifically the Indo-European language. In the last couple of episodes, we looked at William Jones's discovery that almost all of the languages of Europe – as well as several languages of central Asia – were all descended from an ancient common ancestor. And in the last episode, we looked at the various languages which descended from that ancestral language and which are part of the Indo-European family tree.

But keep in mind, that even though early linguists concluded that all of those languages had evolved from an ancient ancestor, they actually knew very little about that original language. They didn't really know what it sounded like, where it was spoken, or when it was spoken. There were some early guesses, but that was about it.

In this episode, we're going to look at how early linguists actually began to reconstruct large portions of that original Indo-European language.

And this is actually a very fascinating story as it relates to English, because much of the initial research in the area of Indo-European languages was conducted in Northern Europe – and especially in Germany. And this naturally included a great deal of research into the early Germanic languages. And since English is a Germanic language, this research revealed a great deal about the history of English as well. And in fact, one of the most important researchers in this area was a well-known collector of German folk-tales – Jacob Grimm of Brothers Grimm fame. So in this episode, we will turn our attention to Germany and the set of rules which are known today as Grimm's law. We will also look at how linguists have used Grimm's research to reconstruct large portions of the original Indo-European language which hasn't been spoken for over 4000 years.

So let's pick up where we left off back in Episode 2. In that episode, we saw how a British judge in India – Sir William Jones – determined that a wide array of languages were related. This included most of the languages of Europe, and several important languages in the Near East and the Indian subcontinent. And as we saw in the last Episode, this family of languages includes many extinct languages known as 'dead languages' in the same regions.

Jones lectures sparked an intense interest in the study of the Indo-European languages and the ways in which they were connected. The entire discipline of linguistics was developed in the 1800s in large part to determine which languages belonged to the Indo-European family and which did not. In the early 1800s, a German linguist named Franz Bopp studied the conjugation and structure of Sanskrit in relation to European languages. And it was soon confirmed that Sanskrit was indeed a relative of Latin, Greek, Modern English and most other European languages.

These researchers also concluded that the ancestors of the Europeans and those of the Hindus were at one time living together, and they spoke this common, shared language.

Now I mentioned that Franz Bopp was German, because the study of linguistics and Indo-European ancestry was as intense in Germany during this period as anywhere else in the world. And not surprisingly, many of the most important early linguists were German or Austrian. And as I said, this is actually a good thing from the perspective of English history, because these linguists were looking primarily at the Germanic languages – of which English is one.

So why was Germany the source of so much early research in linguistics? Well, we can probably boil it down to one famous name – and he wasn't even German. He was a Frenchman named Napoleon Bonaparte.

In the late 1700s, 'Germany' didn't really exist, at least not as a unified state in the sense that we know it today. It was a conglomeration of around 300 separate political units, cities, independent states and provinces. Neighboring France was the dominant power in continental Europe and, by contrast, Germany was a bit of a rough disorganized backwater. There was little industry and the entire urban population of Germany was only about one and a half times that of Paris. And during Napoleon's reign, he invaded and conquered the Germanic territories. And as a result these territories came to be occupied by French armies. And while Germany was under the control of Napoleonic France, and in the wake of that occupation, a sense of German nationalism started to emerge. It began as a resistance movement against the French, but it soon blossomed into a Pan-German movement which sought to unify the historic German peoples.

The Germans began to embrace a national unity and they rejected all things French – including the ideas associated with the enlightenment. Instead, they advocated for a common Germanic literature, thought and culture. This meant a return to native German roots. A German national character was encouraged and foreign elements (especially French influences) were rejected and – in some cases – outright prohibited. This may seem very reasonable and innocent during this early period in the early 1800s - but it ultimately led to an extreme and very dark place in the 20th century with the rise of fascism and Nazi-ism. And in fact the evolution of the term 'Aryan' from its original use as the term for the first Indo-Europeans to its 20th century association with racism is part of that misapplication of linguistic research to perpetuate notions of racial superiority. Unfortunately, language and ethnicity began to be mixed together and confused. And it is a warning to all those who are not careful to distinguish language and ethnicity. But that dark period came later. For now, I want to focus on this earlier – more innocent – period of German nationalism in the early and mid-1800s.

During this period, scholarship and study into the history of the German language exploded. Remember that during the period in which there was no unified German state – the one thing most of these people had in common was a shared language and a general sense that at some time in the ancient past they had been part of a larger – more unified – Germanic culture. But the exact nature of that common Germanic character was unknown. What did it mean to be German? It was into this period of self-discovery that a couple of brothers appeared as collectors of Germanic folk tales. These were of course the famous Brothers Grimm. In many ways they were

a product of this early burgeoning German nationalism. Jacob Grimm confirmed this when he wrote in a letter that "All my works relate to the Fatherland, from whose soil they derive their strength." So we can look at their collection of folk tales by the Brothers Grimm as part of this larger attempt to rediscover the native German culture and spirit. And these collections of folk tales were immediately and immensely popular – not just in Germany.

Closely tied to the collection of these German folk tales was the study of the history of the German language and German literature. As I've said, one of the few unifying factors of the 'German' people was their shared language. It is therefore easy to see why this particular area was the subject of extensive research and investigation to determine exactly what the 'German' nature was.

I mentioned earlier in this episode that some of the early work in this area was conducted by a German linguist named Franz Bopp who studied the conjugation and structure of Sanskrit in relation to European languages. But as you will see, there were many others contributing to this research. They were all part of the burgeoning field of study called comparative linguistics. That just means comparing different languages to identify common features and to discern from those similarities certain things about the history of the languages. Much of this early work concerned sound changes from early versions of a language through later versions. In other words, linguists were looking at different languages and trying to identify how the pronunciation of certain words and sounds had changed over time. Much of the early work in this area was conducted by Friedrich von Schlegel and Rasmus Rask. But it was Jacob Grimm – the fairy tale collector – who built upon their earlier work and is the most famous researcher today because he documented the specific sound changes in detail.

Jacob spent an extensive amount of time studying the Germanic languages. His brother – Wilhelm – appears to have been more involved in the actual collection of the folk tales, and Jacob eventually focused more on the study of the language itself. He was a renowned linguist and he lived in the first half of the 1800s in a society in which there was this burgeoning sense of German nationalism and in which there was an exploding interest in the German language and linguistics.

Prior to Grimm's work, it was difficult to determine with any certainty whether two or more similar words in different languages were cognates – meaning they had evolved from a common word spoken in a common ancient ancestral language. The problem is that similar words occur quite often between different languages. Sometimes it's just a coincidence. Sometimes it is because the word was borrowed into a language from another language. That's why English has so many words that look like French words. English isn't a Romance language like French, but it borrowed a lot of words from French. And so lots of English words resemble French words – but it doesn't mean English came from French. So similar words in different languages didn't really prove anything. And it certainly didn't prove that the languages had evolved from a common ancient ancestor. But it also didn't rule out that possibility either. There was a lot of guess work and speculation during this time period.

But Jacob Grimm helped to create a mechanism by which we can determine with reasonable certainty if the similarities are in fact the result of inheritance – as opposed to borrowing or coincidence. Once we can identify with some degree of certainty that similar words in different languages are in fact the result of inheritance, we can then begin the process of actually reconstructing that earlier language.

So let's look at Grimm's work and see how he began to figure things out. Grimm's work began by comparing thousands of words in the Germanic languages with words in other languages. This was a tedious and painstaking process. And he looked for similarities. But more importantly, he looked for patterns. He didn't just identify words that resembled each other, he looked for systemic patterns to explain the similarities and the differences. And he wasn't just looking at the words as a whole, he was also looking as the specific sounds within those words. To put it another way, he was looking at the way in which sounds – especially consonants – changed over time within the Indo-European languages.

And after comparing thousands of words, he concluded that there were indeed specific sound differences in words found in the Germanic and non-Germanic languages – but more importantly he discovered that these sound differences were part of a systemic change which had occurred within the Germanic-speaking tribes after they had become separated from the other Indo-European groups. Now this all sounds very technical, so let's look at some examples.

The first example should already be familiar to you if you listened to the first few episodes of the podcast. In the earlier episodes, I talked about how the 'p' sound in many of the ancient Indo-European words had shifted to an 'f' sound in the words in the Germanic languages. This was one of the changes which Grimm noticed after comparing thousands of Germanic words with words in the other Indo-European languages.

The example I used in the earlier episodes of the podcast were the words for 'father.'

As you may recall, the Sanskrit word for 'father' was ***pitar***. The Latin word for 'father' was ***pater***. And the Greek word was very similar – pronounced ***pater***. But the English word is ***father*** from the Old English ***fader***. So ***pitar*** – ***pater*** – ***pater*** – and ***father***. So there we see the 'f' sound in the Germanic languages where the 'p' sound is in the other languages.

I also gave the example of 'foot' in an earlier episode.

The Sanskit word for 'foot' was ***pod***. The Latin word was ***ped***. The Greek word was ***pous***. But the modern English word is ***foot***. And in all the Germanic languages, the word for ***foot*** begins with an 'f' sound. So ***pod*** – ***ped*** – ***pous*** – and ***foot***. Once again, we see the shift to an 'f' sound in the Germanic languages.

And there are lots of other examples of this sound change. For example, the Latin word for 'fish' was ***piscis*** which is the origin of the zodiac sign ***pisces***. Again, we can see evidence of the shift from Latin ***piscis*** with the 'p' sound to English ***fish*** with the 'f' sound.

We can also see that same sound change in the Latin word ***pyre*** – as in funeral pyre – or in the word ***pyromania***. The English equivalent is the word ***fire***. Both words basically mean 'fire' or 'flames.' So from ***pyre*** to ***fire*** we can hear the sound P-to-F sound shift.

Another interesting example of this P-to-F sound change can be seen in the English word ***pen*** – as in writing instrument – P-E-N.

The word comes to us via French from the original Latin word via ***penna***. But ***penna*** meant 'feather' in Latin. By the time Norman French brought the word into English as ***penne*** – it had come to mean a quill as in a feather used for writing. So Latin ***penna*** and English ***feather*** are cognate, and we see the 'p' sound from Latin – which was inherited from the earlier Indo-European language – has shifted to an 'f' sound in the Germanic word ***feather***.

As I said there are many examples of this sound change. And let me be clear. Even though I am comparing English words to Latin words, I don't mean to imply that Latin was the original form of English – or that English came from Latin. I am merely using Latin as an example of another Indo-European language – one which happens to be quite old and was being spoken over 2,000 years ago. So it existed at a time which was much closer to the original ancient Indo-European language. And thus – not surprisingly – Latin has some strong similarities to that language. But make no mistake, Latin and English each evolved separately from this ancient source language.

So I have given you a few examples of what Jacob Grimm was observing as he looked at – and compared – thousands of words. And this P-to-F phenomenon was not the only systemic difference he observed. There were others too. In fact, he noted nine specific changes, which I will look at in more detail in a minute. But here was the key. Grimm looked at these systematic differences and he concluded that the differences exist because the sound had changed within the Germanic language family. In other words, at some point in the distant past, a common group of early Indo-European-speaking people spoke these words with a 'p' sound as is still represented in all of the other Indo-European language families. Over time, they began to migrate and spread out and they carried their language with them. And as they migrated, these various tribes became isolated from each other and their languages continued the natural course of evolution that all languages experience. So that over time, these languages evolved into distinct dialects and eventually into distinct languages. That accounts for the various language families we have today.

Within these various isolated tribal groups, as the original language began to evolve, words started to be pronounced differently. And part of the change was a systematic change in the way certain consonants were pronounced. And this is what had happened within the early Germanic-speaking tribes before they too spread out over central and western Europe and carried the Germanic dialects with them. And those dialects eventually evolved into the various Germanic languages we have today – including English. So these consonant differences that Grimm observed – like the 'p' and the 'f' that I've discussed – this represents a sound change. Within the very early Germanic-speaking tribes, there was a change in the way these words were pronounced so that the original 'p' sound began to be pronounced as an 'f' sound. And that is why all of the Germanic languages today have these words with an 'f' instead of a 'p'.

It is also important to note that not every 'p' sound shifted to an 'f' sound in the Germanic languages. I mean, the Germanic languages still have inherited words with a 'p' sound. So whether or not the 'p' shifted to an 'f' in a particular word depended on several factors– like the position of the 'p' sound in the word. For example, the 'p' sound tended to make this shift if it occurred at the beginning of a word. And that is why most of the examples I am giving here feature the sound as the initial consonant. It took other linguists after Jacob Grimm to figure out exactly why this shift happened in some words and not in other words. And all of that was figured out later. But the key is that Grimm identified that in fact this 'p' sound did routinely shift to an 'f' sound in many Germanic words.

Before we look at some of the other sound shifts which Jacob Grimm identified, let's look at this 'p' to 'f' sound shift a little closer and see what's going on mechanically. I think this initially seems like more of a change than it really is. We can get distracted subliminally by the names we give to the letters which represent the sounds 'p' and 'f'. Because the letter name 'pee' doesn't really sound anything like the letter name 'eff.' But those are just names we give to those sounds. But forget the names of the letters for a second, and just think about the sounds they represent – /p/ and /f/. And think about the mechanical differences. A 'p' is made by putting the upper and lower lips together. An 'f' is made by shifting the lower lip backward and instead of touching the top lip – you touch the top teeth. Now there are other technical differences between the two sounds which I am not going to focus on those because this is not a course in linguistics – but I just want you to see that the two sounds are not that different mechanically. And I think you can start to see how certain groups of speakers might make this change over time.

And in fact, if we look closely enough we can see this change in other languages as well. In fact, we still have in English today a remnant of the same sound change which occurred in Greek during the time of the ancient Greeks. Think about the words we have in English that are spelled with a 'ph' but are pronounced with a 'f'. ***Phone, philosophy, elephant***, and so forth. All of these words come from Greek. So let's look at this 'ph' business for a minute and see what's going on there.

In a future podcast, I am going to talk about the alphabet. But for now, just understand that English borrowed the alphabet from the Romans, who likely borrowed it from the Etruscans who were neighbors of the Romans in northern Italy. The Etruscans traded with the Greeks and it appears that the Etruscans borrowed the alphabet from the Greeks as part of the regular trade between the two peoples. And the Greeks themselves borrowed the alphabet from people that they routinely traded with – the Phoenicians. So the alphabet is the product of much borrowing. The Phoenicians were a Semitic people from the Middle East. They did not speak an Indo-European language. So when the Greeks borrowed the alphabet from the Phoenicians, they had letters for sounds which the Greeks did not use. And the Greeks had sounds which the Phoenicians did not have in their language. So the Greeks had to invent letters for these sounds.

One sound which the Greeks had which the Phoenicians did not have was a sound which is often described as an aspirated 'p' sound – as in 'u*pw*ard'. Others describe it as more akin to an 'f' sound – perhaps an in between /pf/ sound. Now there were no audio tapes from this period obviously, so no one can say for certain what it sounded like. And remember that Greece was

divided into separated city-states during this period – like Athens and Sparta. So the sound could have varied among the various regional Greek dialects . Regardless of what it actually sounded like at the time, it was not a straightforward 'p' sound because the Phoenicians had a letter for that sound which the Greeks adopted as the letter 'pi.' So when the Greeks adopted the Phoenician alphabet, they had to create their own letter for this aspirated /p/ sound or /pf/ sound. This became the letter 'phi' – spelled P-H-I today. (It was probably pronounced as /fee/ by the Greeks but I will use the more modern pronunciation /fi/ as in the fraternity and sorority names).

Part of the difficulty in identifying the exact sound of this letter is that it was probably in transition between the traditional 'p' sound and the 'f' sound at the time the Greeks adopted the alphabet from the Phoenicians. That's why they invented a separate letter for the sound. When the Etruscans adopted the Greek version of the alphabet a few centuries later, they apparently still detected a difference between the sound of Greek 'phi' and the 'f' sound because the Etruscans made their own modifications to the Greek alphabet which included the addition of the letter 'F' as distinguished from the Greek letter 'phi'.

So the Etruscans used both 'phi' and 'F'. But by the time the Romans adopted the same alphabet from the Etruscans, they no longer detected much difference between the pronunciation of the letters 'phi' and the 'F' which the Etruscans used. In other words, by the time the Romans got hold of the alphabet, the sound had completed its transition to the 'f' sound. But the Romans chose to retain the 'ph' spelling in words borrowed from Greek which had used the letter 'phi.' But as far as we can tell, the pronunciation of both letters was the same in Latin and has essentially been the same ever since – including in Modern English.

By the way, it also appears that the letter 'phi' completed the same sound change within Greek itself as it also came to represent an 'f' sound in Greek. The Romans probably noticed that there was no longer any distinction being made by the Greeks themselves. So we now have two different ways to represent the 'f' sound in English.

So what we are seeing in words like 'philosophy' – which are spelled with 'ph' – is this same 'p' to 'f' sound shift which was occurring within ancient Greek at the time when they first adopted the alphabet – and which still exists today as a relic in the 'ph' spelling which now represents a fully transitioned 'f' sound.

So again, this is not within the Germanic family. This is within a completely separate language family. But it's the same sound shift that Jacob Grimm had noted and identified within the Germanic languages.

Now as I mentioned, the 'p' to 'f' sound shift was one of the sound shifts which he identified. He actually identified nine separate sound shifts. And just to summarize them, he noticed that:

The 'd' sound had shifted to a 't' sound.
The 'k' sound had shifted to a 'h' sound.
The 't' sound had shifted to a 'th' sound.
The 'b' sound had shifted to a 'p' sound.

The ‘g’ sound had shifted to a ‘k’ sound.

And then there were three other changes from sounds that we don’t really have in Modern English. A very aspirated ‘bh’ (/beh/) sound that had evolved into a ‘b’ sound. An aspirated ‘dh’ (/deh/) sound had become a ‘d’ sound. And a very aspirated ‘gh’ (/geh/) sound had become a ‘g’ sound.

I want to look at each of those a little closer before we move on because it actually makes for some interesting etymology.

Again, one of the changes which Grimm notices was this change from the ‘d’ sound to the ‘t’ sound. And I actually mentioned this in an earlier episode of the podcast. I gave the example of the Latin and Greek word ***duo*** and the English word ***two***. They both mean ‘two.’ In that example, we can see that transition from the original ‘d’ sound which is reflected in Latin and Greek in the word ***duo***, to the ‘t’ sound which is reflected in the English word ***two***.

We can also see it in the Latin word ***decem*** and the English word *ten*. Both of those mean ‘ten.’ I think I also gave the example of the Latin word ***dentis*** which means ‘tooth,’ and the English word ***tooth***. And again, we can see that sound shift from the ‘d’ sound to the ‘t’ sound. All of those words were cognate. They were once the same word, but they have evolved into separate words over time.

This ‘d’ to ‘t’ sound shift is quite obvious, and it’s easy to see. Think about the pronunciation of English words like ***bitter*** and ***latter***. In American English, these words are usually pronounced with a ‘d’ sound. So ***bitter*** becomes /bidder/ and ***latter*** becomes /ladder/. So that shift happens routinely. Also, think about words like ***hitter, fatter*** and ***later*** which also have the ‘d’ sound in American English. Also consider ***kindergarten*** which literally means ‘child’s garden’ in German. In English, it is pronounced with a ‘d’ sound, so ***kindergarten*** becomes /kindergarden/ despite the fact that it is still spelled with a T. Now all of these examples represent a shift in the opposite direction – ‘t’ to ‘d’. Grimm noticed a shift from ‘d’ to ‘t’ from the original Indo-European language to Germanic languages. This is a little harder to find in Modern English. But think about words in past tense like ***walked*** (which is usually pronounced with a ‘t’ sound). So we do see it sometimes – though not as often as the ‘t’ to ‘d’ shift.

Also, once again, in the examples I have given in this episode and the earlier episodes, we see how words come into English from multiple sources – especially Germanic root words and Latin borrowed words which mean basically the same thing. And we have the same Indo-European root which started it all. So we have ***father*** from Germanic, and ***pater*** from Latin which results in words like ***paternal*** and ***patriarch***. And we have the English word ***ten*** from Germanic, and the Latin word ***decem*** which produces words like ***decade*** and ***decathlon*** in Modern English. Again, these words came from the same Indo-European root word.

So let’s look again at that Latin and Greek word ***duo***. As I have mentioned, this word is cognate with the English word ***two*** – meaning that both words came from the same root word. And in this case, we see the shift which Grimm identified from the original ‘d’ sound to the Germanic ‘t’

sound. Now the Latin and Greek forms of the word were borrowed into English and appear in a variety of modern English words like ***duo***, ***duet*** and ***dual*** (meaning two) – but interestingly ***duel*** (meaning a fight between two people) is only *indirectly* related to ***duo***.

The original word ***duo*** eventually led to a separate word in Old Latin – ***duellum*** meaning 'war' or 'conflict' – since a conflict required at least two parties. ***Duellum*** is the direct ancestor of ***duel***. So ***duel*** came from ***duellum*** and ***dual*** came from ***duo***. Over time, the Old Latin word ***duellum*** evolved into the word ***bellum*** in Classical Latin which also meant the same thing – 'war' or 'conflict.' The word ***bellum*** is found in many Modern English words like ***antebellum***, (meaning 'before the war' and typically used in reference to the American South before the Civil War). It also appears in ***bellicose*** and ***belligerent*** and even ***rebellion.*** All of these words involve some sort of conflict, and all ultimately derived from the Latin word ***bellum*** which came from ***duellum*** which came from ***duo*** – which remember came from the same original Indo-European word which produced ***two*** in English thanks to Grimm's Law. So I think you can start to see how interconnected a lot of our words are. But you can also see how one or two basic words in the original Indo-European language produced many words in Modern English. Some of them coming in directly from the original Germanic language – Old English – and others coming from other Indo-European languages – like Greek and Latin – which were borrowed into the language later .

So let's take a quick look at one of the other sound changes which Grimm identified. He noted that the 'k' sound in the original Indo-European languages had shifted to an 'h' sound in the Germanic languages – including English. So here we see lots of words in Latin and Greek that have a 'k' sound where English has an 'h' sound.

So for example, in English we have the word ***heart***. But in Latin the word was ***cord*** which becomes ***coeur*** in French and ***corazon*** in Spanish. In Greek, the word was ***kardia*** which comes into English though medical use. Terms like ***cardiac arrest*** and ***cardiology*** refer to heart related medical issues. Again, here we have the original Indo-European 'k' sound which still exists in some English words which have been borrowed in from Latin and Greek, but is represented by the 'h' sound in the native Germanic Anglo-Saxon word ***heart***.

Another example of this sound change is in the English word ***horn*** which was ***cornu*** in Latin. And again, the Latin version finds its way into English in the word ***cornucopia*** which literally means ***horn of plenty***. Again, the Latin word ***cornu*** and the Germanic English word ***horn*** come from the same root word in the original Indo-European language. The original sound was 'k' and it shifted to an 'h' in the Germanic languages.

Another example of this is the English word ***hundred*** the Latin word ***centum*** which meant 'hundred' in Latin. ***Centum*** was spelled C-E-N-T-U-M in Latin because the C represented a 'K' sound in Latin. But later, the C developed in an 's' sound in French and many other Latin-derived languages. So the word ***centum*** eventually dropped the Latin 'um' suffix and changed the C to an S producing the French word ***cent***. That word came into English in many ways – ***century***, ***centennial***, ***centimeter***, ***centipede***, and even the word ***cent*** which represents 1/100 of a dollar. Again the Latin-derived words which mean 'hundred' came from the same original Indo-

European source as the Germanic English word ***hundred***. Under Grimm's Law, the sound had shifted from the original 'k' sound in Latin to the 'h' sound in the Germanic languages.

Let me digress here for a second a mention a couple of things about the example I just gave. First, in the next episode of the podcast, I am actually going to explore this 'k' sound in greater detail. Because early linguists noted that most of the Indo-European languages have a word for 'hundred' that begins with a 'k' sound like the Latin ***centum***. As I just said, the Germanic languages are an exception because the 'k' had shifted to an 'h' sound. But there was another whole group of Indo-European languages – spoken primarily in Asia and Eastern Europe where the word for 'hundred' began with an 's' sound. This was best represented by the Sanskrit word ***satem*** which meant 'hundred' in that language. So early linguists noticed a geographic divide. The Eastern Indo-European languages had a word for 'hundred' which began with an 's' sound and the western Indo-European languages had a word for 'hundred' which began with a 'k' sound (or the shifted 'h' sound in the Germanic languages.) So they concluded that this division probably represented an early division of the Indo-European tribes with those in the east developing the shift from the 'k' sound to the 's' sound. These western languages were called the 'Centum' languages after the Latin word ***centum*** and the eastern languages were called the 'Satem' languages after the Sanskit word ***satem***. This distinction was once very important to linguists and is still important to a certain extent which I will explain in the next episode. But the real interesting part of this is the relation between the 'k' sound and the 's' sound which we see in the modern English letter 'C' which sometimes is pronounced like a 'k' and sometimes like an 's'. And yes, there are some connections here. So in the next episode I am going to explore this connection and we will see how the modern English letter 'C' came to have two different pronunciations.

OK, so let's go back to Grimm's law for a second.

This 'k' sound which shifted to an 'h' sound in native English words like ***hundred*** and ***heart*** can be seen in a few other examples as well. I just wanted to point these out to you because they are interesting.

The modern English word ***head*** is cognate with the Latin word ***caput***. Again, we have the same sound change which Grimm identified here. The Old English version of ***head*** was ***hafud***. So here we see two of Grimm's laws at work. The Latin word ***caput*** was probably very close to the original IE word for 'head.' It has two consonants which shifted under Grimm's Law. The 'k' sound at the beginning shifted to an 'h' sound, and the 'p' sound in the middle shifted to an 'f' sound under the first rule we talked about earlier. So ***caput*** compared with ***hafud*** in Old English. And ***hafud*** was eventually shortened to one syllable in Modern English by dropping the 'F' sound in the middle and becoming ***head***.

Once again, there are a ton of words in modern English which come from the Latin word ***caput*** for head. It produced the words ***capitol*** and ***capital*** (both meaning 'head place').

It also produced a massive number of words in French which ultimately came into English. So it produced words like ***decapitation***. There we can see that word ***caput*** almost in its original form.

Decapitation means 'to remove the head.' The word ***captain*** meaning 'head of troops' comes from that Latin root word. The word ***chieftain*** meaning 'head of a clan' come from that word. The word ***chief*** comes from that word. The word ***chef*** meaning 'head of a kitchen' comes from that same word. ***Corporal*** (which was originally **caporal**) meaning 'head of troops' comes from the same word. The term ***cadet*** meaning a junior head or military trainee is cognate with that same original word. The term ***caddie*** (from **cadet**) as used in golf comes from that word. Other words include ***mischief*** literally meaning 'a bad head' as in something being brought to a bad head, and ***kerchief*** meaning 'head covering,' and ***neckerchief*** meaning a French head covering but worn by Englishmen around their necks, and ***handkerchief*** meaning a French head covering but held by Englishmen in their hands. And of course the word ***cap*** meaning a 'head covering' also came from the same root.

Again we see how English borrowed heavily from Latin. All of those words which meant 'head' or 'having to do with the head' all come from a Latin word which meant 'head' – and is in fact derived from the same Indo-European root as the English word ***head***. So they all come from the same Indo-European source.

Let me give you one more example of this 'k' to 'h' sound shift. If you have ever studied a Romance language like Spanish or French, you will know that the words for ***who*** and ***what*** are quite different in those languages. So the English word ***what*** is quite different. In Spanish, it's ***que***. In French, it's ***que***. And in the case of the English word ***who***, the Spanish version is **quien**, and the French version is ***qui***. So there is a very clear difference between the Germanic-derived English word and the Latin-derived Romance words. It may not appear that those words have anything in common. But in fact, they are all cognate. They all came from the same source word.

Let's look at the word ***what***. In the original Indo-European language, the word was ****kwod***. Over time within Latin, the 'w' sound in the word fell away. And eventually the 'd' sound at the end also fell away. And so we ended up with the modern Spanish and French words **que**. But in English we have Grimm's Law at work so that the 'k' sound in ****kwod*** shifted to an 'h' sound. So it went from /kwod/ to /hwod./ So very close to ***what*** – but not ***what*** because the 'h' sound was at the beginning. But over time, since that is a bit awkward, the 'h' sound fell away. And the pronunciation just became /wot/. And eventually, as spelling became more standardized, the H and W were shifted around so that in Modern English we actually spell it W-H-A-T. And that's really just an indication by the people who created the first dictionaries that is was the W that was the primary consonant – no longer the H. What we're seeing in that example is the same rules at work. We come from the same original source word, but under Grimm's Law, these words changed.

Similarly, the original Indo-European word for 'who' was ****kwos***. And again the same thing happened. The 'w' sound fell away, and the 's' sound fell away at the end in the Latin words, and you end up with ***quien*** in Spanish and ***qui*** in French. But within the Germanic languages, that original 'k' sound shifted to an 'h' sound, and /kwos/ became/ hwos/ – and then eventually ***who***. So again, we're coming from the same source. With the application of Grimm's Law, we can see that words which appear to have nothing in common actually came from the same source.

Just to finish out Grimm's sound changes, the 't' sound had shifted to a 'th' sound. We can see that in the Latin word ***tres*** and the English word ***three***.

He mentioned also that the 'b' sound became a 'p' sound. The 'b' sound was actually very unusual and infrequent in the Indo-European languages. So we don't have a lot of examples of that sound change. But there is a Lithuanian word ***dubus*** which means the same thing as the English word ***deep***. So there we can see the original 'b' in the Lithuanian word and the later Germanic 'p' sound in the English word.

Grimm also noted that the 'g' sound had shifted to the 'k' sound. So we have the Latin word ***genus*** which is the source of English words like ***genetics*** and ***genealogy***. It was originally pronounced with a hard 'g' at the beginning. And that 'g' sound shifted to a 'k' sound in the Germanic languages and it produced the English word ***kin***. So Latin ***genus*** and English ***kin*** are cognate. Again, to emphasize the point, the English word didn't come from the Latin word. They each evolved separately. And we see Grimm's Law at work in how these two sets of words evolved from the same source word. We can also see this same sound shift in the Latin word ***ager*** which meant 'field or land' and the English word ***acre*** which means 'a certain portion of land.' Again, the Indo-European 'g' sound shifted to a 'k' sound in the English word.

So in summary, Grimm identified this series of sound changes which had occurred in a systematic way from the original Indo-European language through the Germanic languages into the modern Germanic languages that we have today. And these changes became known as Grimm's Law. But Grimm did not actually call them a 'law.' While he noticed that these consonants usually shifted in the way he described, they did not always shift that way. Sometimes they remained the same as the original consonants. And he didn't even attempt to explain the changing sounds of the vowels. So for Grimm, these were general rules, but not laws.

Fortunately, other linguists took up Grimm's work, and they explained the exceptions to the general rules which Grimm had identified. The German linguist Hermann Grassmann and the Danish linguist Karl Verner essentially completed Grimm's work, and they left us with a set of rules which could explain every sound shift between words found in the original Indo-European language and the Germanic languages.

So this brings us to the major point of this podcast. Thanks to the work of linguists like Jacob Grimm and Karl Verner – and specifically the rules we know today as Grimm's Law and Verner's Law today – linguists could explain every consonant shift between the original Indo-European language and the early Germanic languages. Other linguists had also worked out vowel shifts as well.

And this same process of identifying sound shifts was conducted by other linguists in the other Indo-European languages as well so that we had specific rules for sound changes in all of the major Indo-European language families – not just the Germanic languages. And with those rules

in place, linguists could now reconstruct substantial portions of the original Indo-European language – known as 'Proto-Indo-European.'

How could they do this? Well, it's actually quite simple. Sound change rules like Grimm's Law and Verner's Law can be used both ways. They can show us how modern words evolved from older words, but they can also be applied in reverse to take a modern word and determine what it originally looked and sounded like. You just take a modern English word and apply Grimm's Law and Verner's Law in reverse and you can reconstruct what the original version of the word sounded like.

But how do you know if the reconstructed word is accurate? Well, you follow the same process for the same word in other Indo-European languages. So you can reconstruct the word ***father*** in English, and using the rules of sound change for Latin, you can reconstruct the Latin word ***pater***. And you can do the same using the rules of sound change in Sanskirt for the Sanskit word ***piter***. And when you do that, you should end up with the same or almost the exact same word. If they all match, you can reasonably conclude that you have cognates – modern words that evolved from a common shared word. And that is in fact what you get when you follow that process. But if the reconstructed words don't match, then you probably have words that were not inherited from the same original word. Instead, you probably have words that were borrowed at some point from the other language, or words which are similar due to coincidence.

And here is the key. The more cognate words we have to compare, the more accurate the reconstructed Indo-European word will be. For example, the Indo-European word for 'hundred' has been reconstructed as ****k'mtom*** from cognates from eight different Indo-European branches – so it is very reliable. But sometimes we only have cognate words in a couple of the branches of the Indo-European family tree. So in those cases the reconstructed word may not be as reliable.

Linguists have even predicted historical sound charges for which there was no evidence at the time – but which were actually discovered and confirmed later using these rules.

So now you can see how linguists have been able to reconstruct an ancient language which was spoken but never written down. We will now begin to turn our attention to that language and see what it can tell us about the evolution of English from that early ancestral language to the Modern English language of today.

But before we look at the original Indo-European language, there is one last aspect of sound shifts which I want to explore. As I mentioned earlier, there is one set of sound shifts that is reflected in our letter C and the way in which it can be used to represent both the 'k' sound and the 's' sound in modern English. So in the next episode, I will explore the fascinating history of the letter C.

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