**ep 90 evolution**

**Aven:** [00:00:00] Welcome to the Endless Knot Podcast where the more we know

**Mark:** [00:00:04] the more we want to find out

**Aven:** [00:00:05] tracing serendipitous connections through our lives

**Mark:** [00:00:08] and across disciplines

**Aven:** [00:00:15] Hi, I'm Aven

**Mark:** [00:00:16] and I'm Mark.

**Aven:** [00:00:17] And today we're talking evolution, but before we get to that, a few housekeeping details. First of all, we have some new Patreon supporters to thank very much. First welcome back to Alex Katz. Yay. And thank you and welcome to Sze Ior and Ann Miller.

Hooray. Thanks Ann. Ann's my aunt. So thank you very much for your support and to all of our ongoing Patreon supporters. We really, really appreciate your interest in our work and your financial help.

**Mark:** [00:00:52] Thanks very much everyone.

**Aven:** [00:00:53] Second. Though the first session has just finished. Mark, do you want to talk a little bit about your Speakeasy stuff?

**Mark:** [00:01:00] Yeah.

I did a four week seminar, about etymology and, it's called the history of English, learning to think like an etymologist and it, so it's four, one hour sessions for four weeks.

And in each session I talk about a different aspect of you know, how etymology works, How to understand etymological information when you read it in a dictionary and how to kind of evaluate that information when you get it. And it's run through Speakeasy which is a company that Helps speakers who are, you know, anything from academics to people who have interesting careers or interesting histories to do a sort of seminar series online,

**Aven:** [00:01:50] online, all of this

**Mark:** [00:01:51] is online, online through zoom.

And so I, I did this, this course and it was great and you know, we had a lot of fun. And if you are interested in this, I will probably be doing a, another session of this particular course or perhaps a different topic sometime soon. So

**Aven:** [00:02:13] keep tuned to the podcast, but also we'll post things on social media and on the community tab for the videos, if there's more coming up, but we'll definitely.

make sure the word gets out for the next session or two. I don't think there'll be anything probably before May,

**Mark:** [00:02:30] May or June, wanna get into, into the sort of summer, a little bit before we finish up the term, finish off our school term. So, you know, finish up all the grading that I have to do. And then we'll, we'll look at doing another session,

**Aven:** [00:02:44] right.

So just keep an eye out for that and do checkout speakeasy.fm, if you're interested in other courses too, because there are a whole bunch of interesting and quite eclectic courses available.

**Mark:** [00:02:57] Yeah. Lots of good stuff there.

**Aven:** [00:02:59] And they're small and personal like yours, you had 10 people in your group.

That's an interesting way to, get some sort of personal and

**Mark:** [00:03:07] interactive. So, you know, it was very much, hands-on I set little exercises for people to do and I was available for questions of all sorts. So, yeah.

**Aven:** [00:03:19] Okay. So next up is our cocktail. And this episode, we have something a little bit special because we were completely stumped as to what to do for a cocktail. So I put out a call on Twitter, joking about, so can anyone find us a cocktail for Semantic Shift or Codex Cocktail and, Ed Bedford edbedi E D B E D I on Twitter, came up with a codex cocktail for us almost immediately, actually.

So this is dark rum, cold black tea, honey lemon juice and soda. And I'm going to read Ed's description of it. "The dark rum with its oaky vanilla ish flavors is a nod to the woody origin of the codex. Similarly, the honey gives a hint of the hinged wax tablets that might've led to the design of the codex. Then the tea gives a sense of muskiness almost like old vellum. I can't get the lemon to work thematically, but a cocktail needs balance. The layered soda gives a hint of the different leaves of a codex. This could be accentuated by carefully pouring the soda over the back of a spoon so it leaves the rest of the drink as a distinct layer." I'm going to say that I was very proud of myself that I actually managed to do that. I don't know if it'll show in the picture when I put it up on the website, but you can go look. So that's his idea for a Codex Cocktail. Cheers. Cheers. It's tasty.

**Mark:** [00:04:34] It's very good.

**Aven:** [00:04:36] Be a nice summer drink too. Yeah. With the soda

**Mark:** [00:04:40] yeah. Well, I think we need to make this a thing. So everyone, spread this, this around this drink,

this drink around, tell people about it and make it yourselves.

**Aven:** [00:04:50] 50 ml of dark rum 25 ml of cold black tea, 25 ml of honey, 25 ml of lemon juice and a hundred ml of soda. Stir everything except the soda and then pour the soda over and I'll, and I'll put that on the on the show notes too. And Ed happens to have a newsletter about drinks and about the ancient world it's called Liber Adest

**Mark:** [00:05:13] Which just

**Aven:** [00:05:13] sounds so perfect. I know. So it's, it's just a fun newsletter. I'll put a link in the show notes. You can search Liber Adest L I B E R space, a D E S T, and find his newsletter and thank you very much, Ed, for coming to our aid. It's perfect. I'm totally drinking this again. So there we go.

The Codex Cocktail. I think of this may also be a thing in that I may start turning to Twitter more when I'm stumped. Oh. And speaking of cocktails, in response to another listener's suggestion, I am working on a page for the website, collecting up all of the cocktail recipes we have made for all of our podcast episodes.

So all the podcasts episodes that we had a cocktail for I'm putting pictures of and links to the recipes and which episodes we use them in. So hopefully maybe by the time this goes up or sometime soon after I will have a page on the website, at alliterative.net that has all of our cocktails collected there.

So if you've ever heard an episode or have vague memory of an episode where we had something that sounded yummy, hopefully you'll be able to get that soon Okay. I think that's everything. So what are we talking about today, Mark?

**Mark:** [00:06:28] Well, the video was originally made as part of a group collaboration to mark the anniversary or the, I guess the birthday of Charles Darwin.

And so it was a bunch of videos about evolution. And so in the original video, I talked not only about the etymology of the word evolution, but I talked about the evolution of the senses of words. So I'll be talking about semantic shift and then it will also move on to other matters including the evolution of. Book technology.

**Aven:** [00:07:04] All right. So we'll listen to that. And then we'll come back and talk a little more about those details and some other stuff about language shift, really and language change.

**Mark:** [00:07:15] Why do words evolve? It’s well known that language changes over time. But why and how do the meanings of words change? Is there any pattern or system? Basically, meanings adapt to suit the needs of the users of a language, with some disappearing when they are not useful and others spreading quickly because they fit into new environments.The question of why is particularly complicated, but generally there can be said to be a variety of psychological and sociocultural reasons for this kind of change, such as the need for taboo replacement and euphemism like how “to pass away” gained the figurative sense of “to die” instead of referring to any literal movement. As well, real world changes can trigger semantic change. So for instance technological change, which can render an old word obsolete, or can require the existence of a new word for a new technology, while sometimes old words are repurposed for new concepts. Think for instance of the word “dial” which comes ultimately from Latin dies meaning “day”, and therefore originally referred to a sundial or other similar clock faces. When other physically similar devices came along, like compasses, they too could be referred to as dials, and later still when rotary knobs and controls such as on a rotary telephone came along, they too became dials. Now when we push buttons or touch numbers on a smartphone, we still call it dialling, even though there’s nothing rotary about it, and certainly nothing to do with the length of a day. Similarly, in the days of movable type printing, the word font referred to a complete set of letters in the same typeface, so called because they were all cast together out of metal — think foundry. Now with computer word processing, font refers to the typeface itself. Sometimes changes can seem random, but there are some systematic patterns we can see in how words change their meaning.

The first axis of change we can see is narrowing vs widening. Examples of narrowing, also called specialization, include: meat, which in Old English was a general word for ‘food’ before its sense narrowed to specifically the flesh of animals; deer, which originally meant any wild animal before becoming restricted to the specific species we mean today; starve, which in Old English meant ‘to die’ but now means more narrowly ‘to die by lack of food’; and girl, which could originally refer to a child of any gender. The opposite process, widening or generalization, broadens or extends the sense of a word, as in bird which as Old English bridd meant specifically “young bird”, with the word fugol [fowl in Modern English] being the more general word for ‘bird’, and whereas bird widened in its meaning to refer to any bird, fowl narrowed its meaning to refer specifically to barnyard birds such as chickens, ducks, and geese. A similar example is holiday, which originally mean a holy day, before its meaning extended to any time off. And a special case of widening is genericization in which a trademark name becomes a general term for the category, such as kleenex [in some dialects], or as I covered in a previous video, linoleum.

The next axis of change is pejoration and amelioration, whether a word becomes more negative or more positive in sense. So for instance cunning originally meant ‘learned’ coming from the Old English verb cunnan meaning ‘to know’. The negative sense of ‘skillfully deceitful’ doesn’t crop up until much later. An interesting case are the words silly and nice. Silly originally meant ‘blessed’ or ‘happy’, coming from an old Germanic root meaning ‘luck, happiness’, but the sense went through a series of changes from ‘blessed’ to ‘pious’ to ‘innocent, harmless’ to ‘pitiable’ to ‘feeble’ to ‘feeble in mind’ or as we think of it today ‘foolish’. Nice on the other hand, coming ultimately from Latin nescire ‘to not know or be ignorant’, went therefore from meaning ‘ignorant’ through such senses as ‘foolish’, ‘shy’, ‘fastidious’, ‘dainty or delicate’, ‘refined’, and ultimately ‘pleasant, agreeable, or kind’, thus going from a distinctly negative sense to a distinctly positive one. So be careful who you call nice or silly!

Similar to this type of semantic shift is the degeneration and elevation axis. The Old English words cnafa and cniht both meant ‘boy’, but the former was demoted to become knave and the latter was elevated to become knight.

Weakening and strengthening of semantic meaning is another axis found, though weakening is by far the more common. Something that’s awesome, fantastic, and fabulous, isn’t usually characterized by literal awe, fantasy, or fable, and something that’s terrible or horrible doesn’t usually invoke actual terror and horror. You can sort of think of them as hyperbole or exaggeration that becomes banal. One example of the opposite might be kill, which seems to have originally meant simply ‘to strike, hit’ but later was strengthened to mean ‘put to death’.

Two other semantic shifts worth mentioning are figurative ones, metaphor and metonymy. In metaphor something, usually concrete, gains a more abstract figurative meaning. Thus the older sense of field is an open grassy area, but the word gained a metaphorical meaning when used in the sense of say the “field of linguistics”. And the base sense of grasp is to physically hold something with your hand, but you can now also “grasp” the concept of semantic shift. And while broadcast originally meant ‘to scatter seeds’ now we can say that this lesson on semantic shift is being broadcast on YouTube. Metonymy on the other hand is a semantic shift that happens when two things are closely associated with each other. So for instance bead originally meant prayer, coming from a root that also gives us the word bid. But because of the practise of the rosary or prayer beads, the sense transferred over from the prayers themselves to the little decorative balls on a string or chain that were used to count the prayers. An interesting case of metonymy can be seen with the words cheek and jaw. Cheek in Old English meant ‘jaw, jawbone’ and is probably related to the verb chew, but by metonymy shifted its meaning to the closely associated fleshy part above the jaw. The word jaw, on the other hand, probably comes from the French word joue meaning ‘cheek’. So originally jaw meant cheek and cheek meant jaw!

So that’s how the meaning of words evolve, and funnily enough the word evolution itself is a good example of this. You see Charles Darwin didn’t coin the word — it’s been around since classical Latin and has had many different meanings in English over the years. Darwin wasn’t even the first to use it to refer to the process of biological change through natural selection which he famously expounded on in his Origin of Species. As it turns out, Darwin preferred the term “descent with modification” and used the word evolution only once in his writings. It was Darwin’s pal, geologist Charles Lyell, who was the first to apply the word evolution to this concept, and as I said, the word had already been around for a while, making this an example of re-purposing an older word for a new idea. In fact this wasn’t even the first biological use of the word, it had previously been used to refer to the idea of the development to maturity of an individual organism over its life cycle, and before that to all manner of developing processes, including, in the 17th century, the semantic development of a word! This arose from a metaphorical extension of the Latin word evolutio, which meant ‘unrolling’, initially with the literal sense of the unrolling of a scroll, but more commonly with the metaphorical sense of reading through a book, which at the time would have been written as a scroll.

Aside from clay tablets, scrolls were one of the first types of book technology for extended writing [not just brief inscriptions]. Not that they would have called them scrolls at that time. For instance, the Latin for scroll is volumen which comes from the Latin verb volvere meaning “to turn around, roll”, which makes sense when you think about a scroll. Through the process of broadening the term volume now refers to any type of book, not just scrolls. The word scroll is not so straight forward. Though it sounds like roll, it’s actually not etymologically related, though its modern form with the l-sound on the end probably does come from roll. Scroll comes from French escroe, from which we also get the legal term escrow because it was a legal document originally written on a scroll. The French word, which comes from a root that means “to cut” and also gives us shred and shear, originally meant a “cut piece or strip” and then through that process of narrowing I mentioned, a strip of parchment, and finally a rolled up strip of parchment. The next big advance in book technology is what was called in Latin the codex, what we would think of as a book with pages bound together. The word codex [plural codices] comes from caudex, meaning “tree trunk”, by the process of metonymy, because the codex technology evolved from wooden writing tablets which had a wax covering that you’d scratch the writing into — several such tablets could be hinged together, thus leading to the form of the codex or book. The Germanic derived word book has a similar tree origin as it’s related to the word beech as in beech tree, so Germanic books were also originally wooden tablets.

The ancient Greek word for book, by the way, was biblion, from which we get the words bibliography and the Bible, literally “the books”. Of course the word biblion originally referred to scrolls, not the codex, as that came about later in Roman times. Biblion is a toponym, that is a word that comes from a place name, in this case the ancient Phoenician city of Byblos, which exported papyrus. Which raises the point that ancient scrolls and early codices weren’t made from paper. Papyrus is made from layering strips of the pith from the stem of the papyrus plant, a kind of sedge or reed. Our modern word paper comes from papyrus, even though it’s made from pulp from plants like linen and hemp and later wood pulp. Paper technology was invented in China and was only imported into medieval Europe in the 11th century. But there was another writing material commonly used in medieval Europe, the skin of animals such as sheep or calves, known as parchment or vellum. The word parchment is also a toponym, from the ancient city of Pergamon, where the technology was developed as an alternative to papyrus. The word vellum, on the other hand is related to veal, the meat of a calf or young cow, from a Proto-Indo-European root meaning year, thus the idea of a year-old calf.

Getting back to the Romans, they had another word for book, in the general sense of a volume or scroll, Latin liber, from which we get the word library. Latin liber could also mean bark and comes from a Proto-Indo-European root which means “to peel or break off”, which also gives us through the Germanic branch the word leaf. Speaking of leaves, we still sometimes use the word leaves to refer to pages in a book, and there’s another leafy word, folio, which has a place in this story of the history of book technology. A folio, from Latin folium meaning literally ‘leaf’ but often meaning ‘page’, is what you get if you take the skin of one sheep and trim off all the curvy bits to make a codex. If you fold it in half and bind it together with others you get what’s called a folio sized book, very large, a size that today we might associate with a large atlas. If you fold that sheep skin in half twice, you get a smaller book with four pages per sheep skin, which is called a quarto—what what we would now think of as a large dictionary sized book. Fold again and you’d produce an octavo which is the size of a modern hardcover book. Fold again and you get an even smaller book, the size of a modern paperback. One more fold and you get something the size of a small notepad, or a smartphone. And these comparisons are no coincidence. When books started to be made out of paper rather than parchment, they tended to keep the same sizes as had been created by the properties of the sheepskin, cause that’s what everyone was used to. And even today, e-books are designed to be about the same size as the books we’re used to. So essentially your Kindle is the size of a sheep! Only now it’s come full circle, with e-readers that we can “scroll” through—another old word repurposed for new technology, in the ever-evolving history of the book, and language itself, adapting to new circumstances.

 So, first of all, I have a couple of corrections to make about some of this information. A friend of mine, a fellow medievalist has informed me that a couple of elements in the video are in fact myths about the history of the book though, seemingly quite widespread ones ones that have been passed on by other medievalists.

So it's not just the popular media that seems to pass this on, but other you know, people in the

field.

**Aven:** [00:19:32] We'll come back to this idea of incorrect assumptions about the ancient world, propagated by scholars in something I have to say later.

**Mark:** [00:19:39] So, first of all, parchment wasn't invented in Pergamon. Though the name, the place named may still be the etymology. But that's just because Pergamon produced a lot of parchment, but they didn't invent it. Right. So for instance, the earliest known Egyptian use of parchment is from the 20th dynasty. So that's like 1195 to 1085 BCE. So a ways before

A ways back. The widely reported story goes that parchment was developed in Pergamon when Ptolemy refused to export Egyptian papyrus to Pergamon. So they had to come up with a substitute. Right. But again, that's a story. Yeah. Kinda propaganda thing who knows. But but they were,

**Aven:** [00:20:23] they did become a center for production,

**Mark:** [00:20:24] They did become a center for production. So this belief seems to have developed from the fact that Pergamon was a major producer of parchment.

So most of the etymological sources that I checked, repeat this myth the occasionally with S with kind of hedging language, like was said to have originated or supposedly, right. The other point is that there seems to be no evidence of the folding method to produce books sizes early, earlier than paper books.

So, yes, the folding method was used for paper books, but

**Aven:** [00:20:59] which is why there is a mathematical relationship between the different sizes. Okay.

**Mark:** [00:21:03] And which is why old books, you have to sort of cut the pages.

Right. After the, the book was bound and you bought it from the store, they could still be all joined up or, you know, some of the pages double joined up and you still, you have to yourself cut them up.

So it was used for paper books but there's no evidence that it was used before paper. And it kind of doesn't make sense when you think about it because parchment is very stiff and would be very difficult to fold like that. Right. You could maybe fold it once, but folding it that many times.

Yeah. I don't think, stiff and thick, and thick. Yeah. So the source for the idea that book sizes are, are connected to sheep sizes. I got that from a post on the blog Got Medieval, which was written by a medievalist who works with manuscript images. So seemingly a reliable, well

**Aven:** [00:21:56] source. It is in general a reliable source.

**Mark:** [00:22:02] Yes. But it's been widely reported in other places such as Wired and Neatorama and all these, you know, the story got picked up. But if anyone has any, any more information about this, I'd love to hear it. Okay. Now also a few sort of expansions or clarification's, not corrections, but just sort of a little more info about some of the things that I had said.

Though the distinction is often made between parchment coming from sheep and vellum from cows. I should point out that that distinction doesn't always hold.

**Aven:** [00:22:32] Terminology is not so clear cut. It's not

**Mark:** [00:22:34] so clear cut. So sometimes it is used that way, but not consistently. The terms are sometimes used interchangeably for animal skin writing surfaces.

Right? Okay. As for the word folio. When we talk about foliation in medieval manuscripts, it's customary not to number the pages as we do with modern books, but to number the leaves. So rather than numbering each side of the page, you number each leaf each separate, piece of paper or whatever.

And then you refer to the front and back of each leaf as recto and verso respectively. So the right side and the turned sde. Right. Okay. The pages in medieval manuscripts were not originally numbered at all. So this convention is a modern scholarly convenience. And this is an important point as we'll see in a minute.

But if you look at online scans of manuscripts, you'll see that at some point, someone wrote the numbers in, those were not originally there. That is a later scholar, probably in the 19th century who wrote them numbers in. So, you know, they were defacing a thousand year old man, but

**Aven:** [00:23:50] on the other hand, making it accessible.

Yeah. Yeah.

**Mark:** [00:23:53] So, so in that voiceover though I implied the importance of technological development in book technology. It's worth taking the time here to discuss it more explicitly. The benefit of the scroll over the clay tablet is fairly obvious as the thin rolled up papyrus can include far more text in the same amount of space.

In other words, a higher information density What's not so obvious though, is the leap ahead that the move to the codex really gives you. And by the way, as a quick side note, it's frequently reported that Julius Caesar was responsible for the invention of the codex though. I haven't been able to verify this story.

I have no idea even where it comes from, but it seems to get said.

**Aven:** [00:24:42] Hmm. Yeah. I'm going to go ahead and just say that's a myth but it's,

**Mark:** [00:24:45] is it an ancient myth or is it a later,

**Aven:** [00:24:48] Oh, I don't think it's an ancient myth because we really have no mentions of codices in our literary sources for a very long time.

I might be wrong on that, but that was the brief scanning that I was looking into the history of book. We have material evidence that the codex comes in around the first or second century, but no mention of it until much later. So. I mean, maybe it was ancient in the sense that in the fourth century they said, Julius Caesar invented it, but not contemporary to Julius Caesar.

Also everything you're saying about the development of the book, I'm going to have things to say about it afterwards. I'm just warning you now.

**Mark:** [00:25:22] Well, if anyone knows where that,

**Aven:** [00:25:24] story comes to me, I didn't look that up. You could have asked me to research it ahead of time but I didn't look it up.

**Mark:** [00:25:30] But if anyone knows, let us know. Cause I'm curious. Yeah, for sure. Now with a scroll, the text is available in a purely linear order. You literally have to scroll through the text, making it difficult to go back to a previous passage in the text, but the codex allows for random access.

And it's perhaps not too much of an overstatement to suggest that this plays an important role in the explosion of information that has accelerated technical scientific progress. So it's like, I think of a feedback loop with technological progress, accelerating the pace of progress of technological progress, if you will. Because you have information organized in a book form, you can do more progress and therefore, because you can do more progress, you can. So anyways, that's, at least the standard understanding of this.

But it's funny that in a way we've taken a step backwards to some extent, at least with e-readers, eBooks, which are somewhat more clumsy at flipping through the text. And so once again, we're scrolling through a book rather than having physically multiple pages accessible immediately. And with the switch to paper, that's much cheaper than parchment and the whole printing process, obviously, which caused an explosion in the 15th century, its own information explosion with more books being printed in the first 50 years than had been produced in the 1000 years before the printing press.

So, again, book technology can have. Far reaching consequences. Absolutely. Yep. Now the one thing I will say for e-readers though, that you couldn't do before is you can search. So that is, although you're still stuck with scrolling, you can search an ebook in a way that you can't

**Aven:** [00:27:21] and there's hypertext hypertext.

That's also possible. you can do a quick to a Wikipedia entry or depending on how your eText is set up. You can be looking up dictionary words. There's a lot.

**Mark:** [00:27:30] So there are compensatory functions in e-readers that make up for that, limitation, I suppose. But back to the codex, the other big advantage is that it allows for an index since page divisions, give us distinct reference points.

**Aven:** [00:27:48] Though they didn't have those until much later. So they didn't take advantage of that particular

**Mark:** [00:27:55] Not right away. But it, I mean, page numbering was invented, before the modern era, you know, in the early modern period. Yeah.

**Aven:** [00:28:02] They just went a thousand years without it. Yes.

**Mark:** [00:28:06] Yes. They went a while before they did, but it made it possible.

You couldn't do that with the scroll. Well,

**Aven:** [00:28:11] unless you, yeah, unless you numbered every column,

**Mark:** [00:28:13] I suppose you could number columns.

**Aven:** [00:28:15] I mean, there are divisions within a scroll. There's no actual reason you couldn't number the columns and then have an index that said which column it was in.

**Mark:** [00:28:21] True.

**Aven:** [00:28:22] But they didn't.

I am a hundred percent behind you that an index is a wonderful thing, however. Yes. Big fan of indices.

**Mark:** [00:28:30] That page numbering. I mean, it didn't really take off until the early 16th century. So indexes come towards the end of the 16th century. So that's obviously a long time after the invention of the codex, right.

Now during the 16th century, we find the invention of the bibliography with Conrad Gesner's *Bibliotheca universalis*, a bibliographic index of all the books Gesner could get his hands on, which at that time was, you know, just sort of possible for an individual.

**Aven:** [00:29:01] A very rich and well connected person could sort of do it just like the library of Alexandria could sort of collect all the books in the world sort of.

**Mark:** [00:29:11] So that's why we have, you know, that, that term "a Renaissance man', so to speak, right? The Renaissance man was literally the last man who could do that.

**Aven:** [00:29:20] Though he really couldn't. It was only, and even then it was really beyond well and was also only European and only within a certain subset of languages, you know, he wasn't collecting all the Chinese scrolls in the world.

Was he that's true. The Mayan texts,

**Mark:** [00:29:33] The word index, by the way as you might've guessed is the same word as the index finger and comes from the Latin verb, 'indicare', to point out, this makes sense. Right? So an index is pointing out something in a book and in Latin, the word index could refer not only to the finger, but also to anything that points something out.

So like a sign or a token, or a person who betrays a secret. In other words, an informer and appropriately to our discussion, it was also the word for the title of a book.

Right, Yeah. It points out the, points out the subject matter, the contents. In any case all this 16th century pagination and indexing points out another problem with the modern ebook.

As I said, there's no consistent pagination as the screen and font sizes are potentially variable. Are you reading it on a phone or are you reading it on a tablet and what font size you're using. And so any kind of page numbering you get in an electronic context is going to change.

**Aven:** [00:30:39] That's again, a completely solvable problem. See, it's interesting classical texts that we have in the modern world, we have editions, right. for is different, but for prose, every time it's printed, it's going to have different page numbers. How do you refer to it? So what they do is it's usually the very first printed edition of that text had whatever page numbers and whatever columns and whatever paragraphs, and that becomes the set references.

Right? Yeah. So, so now you have an addition of Plato and it's numbered in the, margin, according to the page numbers of the first early modern edition. Yeah. And while that is truly, mind-blowingly confusing if you're a student who doesn't know this, because it's a different system for every text, because it was printed by a different person in a different time.

But nonetheless, that principle could be used. What can, when, when you first format a book for eBooks, you set a page number and then you just have a little page number that comes up and you, you know, it doesn't matter how many pages you're on page four, you're still on page four. It's a completely doable thing.

It's

**Mark:** [00:31:39] messy, but doable.

**Aven:** [00:31:41] Yeah. But we can all, we can all live with it. Like we can manage that if we want it to, it's not a, you know, it's not really a technological limitation. It's just a convention limitation.

 **Mark:** [00:31:50] In any case, we can certainly make the case that, like the development of the codex, paper, the printing press, the index-- the move to electronic text has allowed for a similar explosion in information and innovation in our modern world, because everything is searchable and you can have hypertext and all of those things,

**Aven:** [00:32:11] and it's also available in ways that, you know, you aren't limited by physical availability.

**Mark:** [00:32:14] Mass production is so easy when it's just electronic

**Aven:** [00:32:17] geographic barriers become much less. Yeah.

So let me, since you've set me up so beautifully, let me

**Mark:** [00:32:24] tear down everything that I just said,

**Aven:** [00:32:26] let me problematize and complicate this narrative.

Actually first I want to just turn to something which you didn't talk about, but I just, I think an interesting addendum to the history of books, because what you didn't talk about perfectly fine reasons was reading, which, you know, goes along with books. Yeah. Books have readers. And speaking of myths, there's a particularly persistent myth about the evolution of reading from the ancient to the modern world, which I read a very interesting article about, and it's the idea of silent reading. So the story goes that in the ancient world, Greek and Roman worlds, everybody read out loud to themselves or to others, certainly. And it absolutely was true that reading could be performative and very often people read things to other people, but that even when you, if you were alone, no matter what the circumstances, you would sound things out as you spoke.

And the story goes that this was in part just convention, but in part, because the way the manuscripts were written. Which was in scripta continua, which is where you write all the words come close together. There's no spaces, there's no punctuation. So all the letters just go to the end of the line and then start the next line, makes it very difficult to parse which words are, which, and you need to sound it out in order to be able to read it.

So this was the story. This has been the story and the story of the book, you know, people who work on book history and indeed among classicists to some degree. And there's one particular story that is always pulled out.

So there's a couple of instances where people remark upon with some surprise somebody who's found to be reading silently to themselves. Reading without speaking, the particularly famous example is Augustine talking about his teacher Ambrose.

**Mark:** [00:34:09] That's the one that I know as a medievalist, it's a very famous,

**Aven:** [00:34:12] very famous and that they came upon him reading silently to himself, and then they went away and were surprised

**Mark:** [00:34:17] Yeah, "weirdo".

**Aven:** [00:34:17] then there's another, there's a couple of other ones, one famous one about Caesar and some other, some other ones as well. However, in the article, "Silent reading in antiquity and the future history of the book" by R W McCutcheon from 2015, the argument about this is summarized, and this is not the first person who has put forward this argument.

It has been put forward by classicists from somewhere near the beginning of the 20th century and picked up in the sixties and later, but it hasn't really made it out into book history very much that this is a pile of horse feathers essentially. Now, not that the ancient world did not read aloud.

Absolutely people did read aloud, but that it was the complete default and that, you know, the ancient world was not capable of reading to themselves. And only the few lone geniuses were able to do so. And everybody who saw it was completely shocked and appalled. That there's really no evidence for that.

So this article talks at some length about the Ambrose passage and goes into further details and sort of says, no, this is actually all about the relationship between Augustine and Ambrose. I That it really was not about surprise that he was reading silently, but surprise that he continued to read silently, even when other people came into the room and did not share what he was reading with them so that they sat there watching him read in silence and then went away.

And that, that lack of sociability of reading was surprising, but that was not surprise that he was able to read silently or even chose to do so. Anyway the point that McCutcheon really makes is mostly that, yes, there are a few episodes where people seem to note the reading silently, but there are also about the same number of episodes where people note somebody reading aloud. That is nobody talks about it very much at all.

There are actually only a handful of descriptions of either case. And everybody says these four, you know, the fact that there are so few references to reading silently means that it was very rare, but not the fact that it's only six references to people reading aloud in private, you understand, McCutcheon is not disputing the idea that people often read to other people, that it was often very performative, not disputing that, but the idea that in private, you would read aloud to yourself.

You know, there's basically an equivalent number of citations that you could make for that. But this story has come up, that those are that's the default and the silent reading is exceptional.

**Mark:** [00:36:38] So could we assume from that, that both practices were probably pretty common?

**Aven:** [00:36:43] Yes, that's McCutcheon's argument is that, you know, it may well be that reading aloud was more common than not, but that silent reading was by no means vastly unusual or restricted to a few people and they make the point that for the Roman world in particular, and they really weren't talking mostly about the Roman world. There was in fact, quite a long period of time in the second and first century BC where scripta continua wasn't used, there was punctuation, there was punctuation between every word.

There was a punctum between every word and scripta continua, came back into fashion in the early empire. Which is about the same time as codices started and where we have Ambrose reading to himself and stuff. And there's also quite a lot of evidence for a very visual approach to text. For instance, we were talking about this quite recently, you and I, acrostics, right? Roman poetry is very fond of acrostics. Acrostics are only a visual thing, and we have a fair number of contexts in which emphasis on the physical aspects of papyrus scrolls is very clear in a way that the text is interacting with the physical thing it was on, in a way that would only make sense if you're reading the text and looking at the physical thing. So if somebody else is reading to you, it wouldn't, it wouldn't make sense. And a visual appreciation of texts, not aural appreciation,

**Mark:** [00:37:53] I know in the middle ages, they sometimes used a pointer to read.

So you would point to the words as you read to yourself, whether you're reading out loud or to yourself. Did they have any?

**Aven:** [00:38:04] I don't, I don't know.

**Mark:** [00:38:05] The example I know of that is specifically the Alfred Jewel, which is the fancy head on the end of the pointer, but it's also mentioned in the text that these things exist.

And so we believe that the Alfred Jewel was described as a very ornately decorated jeweled pointer that was supposed to stay with the book. Yeah. And never be separated.

**Aven:** [00:38:27] Yeah. So I don't, I just don't know. But so basically McCutcheon argues that there's an over-reliance on and a cherry picking of evidence for the rarity of silent reading.

And specifically that this has to do with a particular narrative of the development of the book. So I'm going to read a fairly long quotation because it is so on point for what we were just discussing. So basically McCutcheon says like, if there isn't that much evidence for it, and classicists have been saying for about 60 years, that it's really like, this is made up, why do book historians continue to say it? Why is it argued so strongly?

" I suggest it fits within a much larger narrative that scholars have constructed concerning the dual evolution of the book and human thought. In scholarship on the history of the “book” over the longue duree, four seminal events typically define the stages of development of this artifact.

These events are one, the invention of alphabetic writing. Two, the shift from scroll to codex and the supposed rise of silent reading in Christian monastic culture. Three, the invention of the printing press and the increased dissemination of uniform information and the enlargement of public knowledge. And four, the ongoing shift to digital media in our own age, with the possibility of larger and more complex storage within a hypertextual environment. We might say that alphabetic writing was the first sea creature to crawl onto shore and breathe air while the scroll was the hirsute, knuckle dragging prelude to the more hygienic print codex with the digital text, becoming the final culmination of these physical developments and advancements, the apotheosis of the book into a non-corporeal yet omnipresent form."

 McCutcheon then goes on to say, to torture my metaphor even further, I I'm being intentionally, you know over hyperbolic with this metaphor because I want to make, this point. The point that McCutcheon is making is that this becomes a teleological narrative of technological improvement, that everything is progressing towards an end point of, of better technology, but also better cognitive development leading to things like this idea of evolution as progress.

That evolution is always progress forward, as opposed to what evolution in the biological sense actually is, which is. Random change. Yeah. Random change, which then develops into fit, But, you know, the change happens randomly. It

**Mark:** [00:40:44] The change always drives towards the perfect fit in a particular environment.

But those environments obviously change and there are other environments to become fit to. So

**Aven:** [00:40:52] So you can change in a random way and then find a new environment to fit into. And I mean, you know, even in our discussion of page numberings, for instance, if the codex was needed so we could produce the index, why did it take a thousand years?

Because well, because the codex wasn't produced in order to get the index, you know, this is not just so I'm not, I'm not trying to argue that everything you said is incorrect, but McCutcheon does go on to talk about like this idea that the scroll is manifestly less innovative, allows for less innovation than the codex, really does not take into account how the scroll was or was not actually used.

That scrolling in a digital medium does not necessarily make it less possible. And I, I mean, I spent a lot of time reading what people say about how codex the codex is necessary for cross referencing. And I'm thinking to myself, have you read an Augustan poet? They clearly spend all their time looking at 700 different texts and then finding ways to like cross reference it throughout their works in this minute way.

And they did all of that without a codex. So, you know, it may make it easier, I'm not, again, arguing that that's not true at all, but an over-reliance on this narrative of progress, which then allows people to, or causes people to simplify actual historical evidence is really what McCutcheon is arguing. And so I thought that was an interesting sidelight and also corrective, not, not to undercut everything you were saying by any means, but to suggest and McCutcheon does go on to say at the end to talk about like, this is important for us thinking about the future of the book and not thinking as you say, we're going back to scrolling, but that doesn't necessarily mean it's a regression because that suggests that evolution is only progress.

This is another type of evolution. This is another change. there are many elements of scroll culture that could make that we could think about. And If we pay more attention to how, for instance, the Romans actually interacted with their texts, as opposed to the way we want to fit them into the narrative, then we can better think about how people are interacting with digital texts now as using that as a comparanda, rather than fitting it onto our little evolutionary chart of, you know, figures progressing through time.

**Mark:** [00:43:05] Right. Yeah. And I think those are some good points. And, you know, as I said, there're often trade-offs with these things, right. You get some advantages with moving to electronic text and some disadvantages.

So it's not a, straight, line sloping upwards. There, there's all kinds of trade-offs that you're making with different technologies. They have their strengths and their weaknesses.

 **Aven:** [00:43:25] and yes, you know, particular cognitive strategies may work better with one form than another, but we are very flexible.

Cognitions, you know, like we are, we are very good at finding the right way to work in the particular context that we're working and it doesn't make it impossible for us. The scripta continua thing, for instance, there are lots of scripts in this world that are continuous and don't have spaces.

And those people in those cultures can read silently perfectly well. It may be easier to do so with more punctuation, but it doesn't mean we can't do it. No.

**Mark:** [00:43:57] And I would say, in terms of the sort of cognitive implications of these things, it's much more nuanced, but the one thing that I think is undeniable is the information density.

Yes. So scrolls are not information dense compared to codexes, and codexes, are not information dense compared to electronic files.

**Aven:** [00:44:17] One other sort of related thing that I just want to bring up because it's too often elided in the history of the book is the other part about reading is in the Roman world, who was doing the reading.

And when we talk about people reading in the ancient world, the other really important part is that a lot of the time it was not the person who was doing the reading, who did the reading. That is, in the elite Roman world, and if you were an upper-class person who read a lot, odds are most of the time you were being read to, it was an enslaved person who was reading to you.

And when you wrote, much of the time, you probably also were not writing. You were dictating to an enslaved person who was writing it down.

**Mark:** [00:45:00] So does that suggest that there is less silent reading then?

**Aven:** [00:45:05] yes perhaps ,but this is part of also the entertainment, so entertainment was people reading to you.

But yeah, a lot of that reading was... that doesn't mean that they weren't capable. Again, the argument here is not that nobody ever read out loud. The argument is that reading silently was not an exceptional skill and totally impossible and hardly ever happened. But that a lot of the reading that was done, one of the reasons is there were no eyeglasses in the ancient world. If you couldn't read very well, physically. There's a quite famous article about " Rome before spectacles". Punning on the spectacles of the entertainments, but the idea being that, in fact, you can think of enslaved people as prosthesis in some ways.

It's there are many interesting questions that rise when you do, but that's one of the reasons, and we know that that when you were tired or when it was dark or your eyes were strained or as you got older and you couldn't read very well, you would have an enslaved person do it.

So it's simply to know that a lector or lectrix, both male and female enslaved people were very commonly used they also use them for, as I say, dictating. Nobody suggests that Roman elite men were not able to write by themselves just because they often dictated to their secretaries.

In the same way that just because they often were read to it doesn't mean they couldn't read silently to themselves. Right. They may have done it more often as another practice. There's lots of stories about people traveling and having slaves run alongside reading to them.

And one on one side reading to them, the other on the other side, taking notes, Pliny the Elder was apparently always accompanied by at least two enslaved people who were reading to him and taking notes so that he could get through all of the volumes he wanted to read. And all of his time, like when he was walking or taking a litter to somewhere or traveling, or you just always had people who had to run along.

these people, you know, that became, that was their job then and they were particularly good at it. They had fine voices that they trained. But they also weren't capital R Reading in the sense that very often you get the sense from our authors, that they did not think that those people who were doing the physical reading were gaining the substance of what was being read.

**Mark:** [00:47:08] But is that just,

**Aven:** [00:47:09] Oh, of course. No, no, of course it's the, it's the enslaver, it's the slaveholders view, not that, but, but my point being that while they were the physical transmitters, they were not the audience. Right. so you have to think about the way they are aways policing, who is the actual Reader of the text, as opposed to the reader of the text.

I'm making hand gestures here. That's very bad for podcasting, And the authors we have very rarely refer to this. They'll say I read, I read this many books and I read this much and I wrote this much. and then every so often they'll say I had it copied, or I had it written, or I had it read, but the grammar does not, take note of these enslaved people, which is very normal in Roman stuff.

They ignore them all the time. So it's up to us to unpick and to find those details. But that also, you know, when you talk about the technology of the book, it is important in the same way that we'd have to think about scribes in the medieval period as being part of the technology of the book, not the authors, but the scribes in the same way, the enslaved people in Rome the readers are part of the technology of the book too.

**Mark:** [00:48:10] So does this suggest that literacy rates were actually quite high?

**Aven:** [00:48:14] I mean, yes and no. They were more, maybe, maybe literacy was more widespread than you might think it was. That is it cut across class lines in ways you might not expect '

**Mark:** [00:48:23] Because we do know that there were many women at least at a certain status and above who were, who learned to read and write because they would do we've got material from them.,

**Aven:** [00:48:34] yeah, no, the, the upper-classesse s s s we're I think very literate, both men and women, but they were also a tiny, tiny proportion of the people that existed in the room.

You know, they really were the 1% there were many enslaved people who were literate, but there are many, many more who were not. It was a specialty job they were trained for. So if you weren't being trained for that job, you weren't wouldn't necessarily be literate. But I think in a wealthy person's household, I would say that yes, probably many of the slaves were literate to some degree.

For sure, because that would be part of their function and their tasks. But again, We have to remember how small, a portion of the population that always is. Right. So, but yeah, literacy at Rome I think was higher than in many other comparable pre-modern States.

Not all, but than some anyway, because it was a more useful skill for various reasons. Anyway, the article that I was reading about that about enslaved readers that was really interesting was a chapter called "In Ancient Rome" by Joseph Howley in a book called *Further Reading*, which is from 2020. Joseph Howley is someone I know on Twitter, and so I thank him for helping me with some of this material. All right. So tell us more about words and how they change.

**Mark:** [00:49:44] Well, first I want to talk about one particular word and how it changes, and that is the word evolution. So I kind of summarized quite briefly the semantic development of that word, but taking a closer look at it is actually quite interesting.

 So it's first recorded or the first recorded sense of the word evolution in English is actually in reference to a military maneuver. And that is in the early 17th century. So rolling out troops, you want to think of it that way? Right? Then we have some literal uses of the word to refer to various types of turning movements in dancing and gymnastics and even machine parts.

From the 17th century, we also see the word used in more figurative senses such as the sense of a progression of a series of events, like the unfolding or unrolling of history, right. From the 17th century, we also see the word used in a variety of mathematical senses, such as the opening out of a curve and the extraction of a root from a given power.

Skipping forward after the word had come to its modern biological Darwinian sense, it comes also to be used in other scientific contexts from the 19th century, such as the development of the earth or the universe.

So the evolution of the earth evolution of the universe in sort of geographical or, physical senses. But as I mentioned Darwin mostly avoided using the term himself in part, perhaps because of the notion of a simple unfolding or revelation of history, which might have invoked a more creationist notion of natural history, which he was trying to.

**Aven:** [00:51:27] Yeah. I mean, that idea of the teleological progress, the sort of ongoing linear progression he was trying to explain it didn't work like that.

**Mark:** [00:51:34] Yeah. So he may have avoided it so as not to give the wrong implication here and also because it had previously been used in reference to other theories of biological development, such as pre-formationism in which organisms were thought to develop from miniature versions of themselves. Now as I mentioned in a previous video on Charles Darwin's grandfather, Erasmus, Darwin, which we did as podcast episodes, I can't remember.

I didn't look it up. I forgot. But that senior Darwin also used the word evolution in reference to his own proto evolutionary theories. So Charles himself used other terms such as transmutation and descent with modification.

And the only time he used the word, he only used it once in all of his writing. And specifically in its verb form to evolve in the final sentence of *Origin of the Species*: "from so simple a beginning, endless forms, most beautiful and most wonderful, have been and are being evolved." Good sentence.

Yeah. But that's the only time he used the word.

So turning now to semantic shift more generally. So, you know, generally what we see in semantic shift is a move from sort of more concrete to more abstract senses. So for instance, the word peace comes from an earlier sense of communal living. And now I'm talking like really big time, so long time, deep time.

So the word peace comes from Anglo French pes from old French pais which means peace, reconciliation, silence, permission, from Latin pax, compact, agreement, tree of peace, tranquility, absence of war, which is related to the verb pangere to join and pagus, community, which goes back to a proto indo European root \*pag-, which means to fasten, like literally to fasten on the notion, the figurative notion of a united group, a bound group or a binding together, perhaps through some sort of treaty or agreement or something like that.

And the word pact is from that same root as well. Right. So we have this very concrete sense, which develops this big abstract sense

right

now, one of the semantic changes that I mentioned was weakening. But it's very frequently talked about as semantic bleaching. So I should have mentioned that that is quite a common term for it now, you often hear people referring to semantic bleaching, that's the same thing, right? Weakening of a sense, it loses its semantic force. And another thing that I, should have mentioned that I forgot to, there's another type of figurative change along with metaphor and metonymy metonymy yes, that's the one I did mention the one that I didn't mention was synecdoche.

Cause there are a bunch of words that have senses that develop through that path.

So that's when a part stands in for the whole. So when a captain calls for all hands on deck you shouldn't be imagining, you know, like disembodied hands like the Thing?

Yeah. It's not like Thing crawling on onto yeah. So no, it's not that. What you should be imagining is the sailors themselves coming onto

deck

**Aven:** [00:54:56] Who are called hands because they use their hands

**Mark:** [00:54:59] So a part standing in for the whole similar to this is when one uses the name of say a capital city, such as Washington to refer to the whole country or the whole government of that country.

So when you talk about Washington, well, you don't really mean the whole city of Washington. You mean the government of the United States, which resides in Washington. Yeah. Or Hollywood referring to the entire entertainment industry. Right.

So an interesting example of synecdoche in which a new meaning has sort of taken over as the primary meaning of a word is the word table. So in old French, table meant a board, but now refers to both in English and in French to the entire piece of furniture, including not only the top, the table top, the board part, but also the legs.

Right. And so in Latin tablets, you know, that meant like a writing board or something like that. Right. it's not a piece of furniture, it's just a board.

**Aven:** [00:55:52] A tablet. Yeah.

**Mark:** [00:55:53] Another type of change or sense, shift that is sort of interesting is called

Oh god I've never pronounced this out aloud before, give me a second.

**Aven:** [00:56:02] Oh I'm excited now!

**Mark:** [00:56:03] enantiosemy

**Aven:** [00:56:05] Very nice. I don't know if it's right, but you said it confidently. We're going to go with it.

**Mark:** [00:56:11] Yeah, it must be that cause it's like polysemy, enantiosemy. Sure. So that's when two opposite meanings are found in one word. So a contranym or a Janus word. So this is when you see a word that has two different meanings. Very often this is because there were two separate words which became homonyms right. Though, not always, so the most famous example, I guess, is cleave, which can mean to cut apart or to join together, bind together.

Those are from two different words, actually, right? So one is Old English, cleofan, which means to split, separate, from the proto-indo-european root \*gleubh-, which means to tear apart or cleave. And the other sense comes from Old English clifian or cleofian, to stick fast, to adhere. And that comes from the proto-indo-european root \*gloi- , which means to stick, that's the same root that gives us glue and clay and clue, interestingly.

**Aven:** [00:57:07] Go watch the video on clue for more on that particular word,

**Mark:** [00:57:11] Another example is let, as in to allow, so "let me do it" or to prevent, as in "without let or hindrance".

**Aven:** [00:57:19] Right. That's an archaic meaning of it. Now we don't use that.

**Mark:** [00:57:22] We don't use that very much anymore.

Again, that's two different words. So there's, Old English lætan to allow to leave behind, to depart, to leave undone, bequeath, and so forth. And that comes from a proto-indo-european root \*led- or \*lē-, to let go, slacken, and the other sense comes from Old English lettan, to hinder, delay, impede which comes from the proto-indo-european root \*lē- .

Well, also the same, it comes from the same root. Okay. That's interesting. I, I didn't notice that until just this moment. They both come from the same proto-indo-european root, but they are very different, different journeys And so there were two separate words in old English that then fell together again.

So that's kind of interesting. The other sort of good example of two senses that actually come from the same root is sanction. So a sanction can mean, a positive decree that says, yes, you can do this. Or it can mean a negative decree that means no, you can't do it. Yeah. so it means to permit, but also to penalize.

Yeah. So I thought it would be interesting to look at a few more representative examples of some of the semantic changes that I'd mentioned. Just cause they're interesting and surprising and go through weird paths to get to where they are.

So another example in the sort of widening narrowing end of things is the word meal, which we can, so we can compare the word meal as in, food sitting of food in a day, right? food that you eat at a specific time of day, or we can see meal in the sense of piecemeal so bit by bit, one piece at a time gradually.

This comes from the old English word mæl, which meant a fixed time or occasion, which goes back to a proto indo european root \*me-, to measure. So in other words both of these, the senses come from this idea of to measure. So it's either a particular time of day measured time of day or measuring one bit at a time, right? Another word is seasoned, which can mean time of year or adding flavor to food or aging wood. And so again, this comes from the sense of the time of year we have old French seison meaning season, date, right moment, appropriate time, or sowing or planting. And ultimately it all goes back to the proto Indo European root \*sē- to sow, to plant seeds. So you know, it's the time for sowing and then it just became widened to a particular time for anything, any particular,

**Aven:** [01:00:00] there is a season turn, turn, turn, turn, turn, turn.

**Mark:** [01:00:04] And so the sense of, you know, improving the flavor of something by adding spices, again, that's from the idea of aging it long enough so that it's ripe and tasty, therefore tasty. And seasoning wood comes from the idea of bringing it to the best state for use. So letting it again, go for a period of time and it takes time. Now for amelioration, an interesting word is the word fond, we can compare it to, I talked about silly and nice, silly and nice.

Yeah. And so nice becomes ameliorated. So this is kind of similar in that sense. Fond originally meant, in the 14th century, deranged, insane, and also foolish silly unwise. the idea is it's, it's probably a past participle fonned or fonnèd. Right. So there's a verb that was fon that, meant something like to be foolish, to be simple.

 And so we don't know for sure where it comes from, but it's believed to be from Scandinavian, from a Scandinavian word the meaning evolved via sort of "foolishly tender" to "having strong affection for"

**Aven:** [01:01:14] that sense of fond meaning not quite clever, not quite All there.

Right. I mean, it's still there in Austen. It's there for a long time.

**Mark:** [01:01:24] Yeah. Interestingly, another sense of the original, that original verb fon was to lose savor, to lose kind of flavor which has been speculated to be the original meaning of the word, so, huh. Okay. Another one that's kind of similar to that is tidy which comes from tide, like, you know, the ocean tide, but originally it meant time.

And so in old English tide meant time. And so that obviously makes sense. The tide is, you know, the time of the ocean going in and out. So it t in season in other words so therefore opportune and excellent. And from that, it developed the sense of in good condition or healthy. So tidy has that sort of sense that that you know, kind of positive, specifically positive sense. The word smart can mean both intelligent, clever, and painful, right. That smarts. Right. And this is always the problem etymologists have to wrestle with, are we dealing with two words or one? And if it's one, well, what's the connection between,

**Aven:** [01:02:23] how did, how did it develop these disparate meanings?

**Mark:** [01:02:26] So the old English word smeart meant painful severe stinging and it's related to a verb smeortan which, you know, has kind of a similar sense to hurt basically.

And so the, the meaning executed with force and vigor develops by around 1300. And from that you get there So the original sense was cutting or piercing or something like that, something that causes pain, biting, and that can develop into the sense of sort of a cutting wit ,and therefore smart.

**Aven:** [01:03:02] Right, right. And to move smartly is still, I mean, it's a bit old fashioned, but you can still use it to mean quickly. Right. Like she bellowed at him and he turned around smartly or something. Like we, we do use that term.

**Mark:** [01:03:14] Though I think that's a little bit archaic now.

**Aven:** [01:03:16] Yeah. But I don't think to the extent that somebody wouldn't understand it, if they read it right.

You know, I don't think, I don't think we've lost it. It's just kind of fixed now into moving quickly in very specific contexts.

**Mark:** [01:03:28] Now one example of pejoration, that makes sense once you hear it is the word mean, which originally meant sort of common, shared by all, so in common. Right. And so therefore, if something is common, it is sort of lowly, inferior, cause the hoi polloi have it.

**Aven:** [01:03:45] Is the sense of in common, is that where we get the mathematical sense mean? The mean the middle?

**Mark:** [01:03:51] Yeah. So it develops that technical sense as well.

**Aven:** [01:03:53] And then keeps it, because once you have a technical sense, it tends to preserve a sense.

**Mark:** [01:03:57] and also the sense of stingy kind of comes from that. So, you know, if you're low minded

**Aven:** [01:04:02] one sees the snobbery of, of the people who get to coin these words

**Mark:** [01:04:07] and common has that, the word comm progression

**Aven:** [01:04:10] as does vulgar, vulgar as do all of these words.

**Mark:** [01:04:14] Yeah. Well, and as does, say, the Greek word idiotes, right, from which we get idiot. In Greek, it meant just sort of a private individual.

But from that, it develops the sense of a sort of ignorant person. And eventually it was used as a term to refer to mental deficiencies thanks to the 20th century American psychologist and eugenicist Henry Goddard. And so yet again, here's another one of our works that mentions eugenicist because they keep cropping up.

**Aven:** [01:04:42] And it's one of the reasons we should try to avoid that term though. I it's one of the ones, one of the many ones that I'm not always good at leaving out of my vocabulary, especially when I'm angry, but it's, you know, it is an ableist term that should be avoided. And I have been working on it.

**Mark:** [01:04:56] As a little bit of a teaser of a video to come someday...

**Aven:** [01:05:01] I'm fairly certain you've teased it in the last three podcasts, right?

**Mark:** [01:05:06] Both the words native and naive come from Latin, nativus, which means, literally, born. And it comes through the old French naif which means naive and natural, genuine, but also therefore just born and therefore foolish or innocent.

So it's got this sort of unspoiled kind of aspect, but that can be, it can be positive or negative. Yeah. It could be drawn out into this negative sense and naive in English anyways, has that well, okay. I guess it can be, it depends on the context,

**Aven:** [01:05:38] and it depends on the context. Somebody could be an innocent, naive child and it isn't necessarily bad. Yeah. It really depends on the context.

**Mark:** [01:05:45] And again, you see the same sorts of things with the word villain, right. Which comes from Latin Villa, which just means like a country house with a farm. And so a villain was originally just a farm hand, but because people look down on farm hands, it becomes peasant, yeah.

**Aven:** [01:06:04] Yeah. And then it becomes bad person,

**Mark:** [01:06:07] as opposed to say the words urbane and urban. Right. So if you're from the city, if you're from the urban place you are therefore urbane, so sophisticated. So, you know, we can see these, very predictable, I suppose, or at least predictable in hindsight since progressions these peg durations or ameliorations.

And then finally we come to you know, the, the sort of figurative senses, like metaphor and synecdoche and metonymy and so forth. Right. So have you ever thought about the word nail? What would you guess is the original sense of that? The fingernail or a metal spike?

 **Aven:** [01:06:47] I'm gonna say the metal spike.

**Mark:** [01:06:50] It seems to be though it's not at all clear. It seems to be that the fingernail sense is the older meaning, but both senses go way back. So as a metaphor, this is a very old metaphor, both senses were there already in old English though, they use different spellings to try and differentiate them, but they clearly come from the same route, the same protein into European route.

So some of these metaphors can be quite old. How about the word litter? So we've got litter in the sense of, you know, scattered rubbish. Yeah. We've got litter in the sense of a number of young brought forth by an animal, right. In one birth that is the same. We've got the sense of like a stretcher or.

Something that you're carried on

It's, something that you're carried on. And then we've got litter as in the sense of straw or hay or something like that used for the bedding of animals or, what I think is probably closely related to that is like kitty litter also, right? So stuff kind of as a, as a bedding for well, I mean

**Aven:** [01:07:54] the discarded trash, the animals and the bedding for animals all seem like they'd come from the same thing, probably bedding from animals. And then that is the stuff, it's either the stuff strewn, which becomes bedding for animals, which is also where animals have their babies. Therefore it's a litter or animal stuff to strewn trash, either way. I'm not sure which way it would go, but surely those are all connected.

**Mark:** [01:08:18] So any guess as to where it might come from,

Think Latin.

**Aven:** [01:08:21] Yeah. I mean, I feel like it could come from the stretcher first because then it would be lectus

lectus, yeah,

**Mark:** [01:08:27] yeah. Yeah. So lectus meaning, you know, bed or whatever, a thing that you carry around. So beds were, originally just sort of mattresses stuffed with straw or something similar, which could be stored away, you know, in, when you weren't using, when you weren't using them.

And so the portable idea's there. And therefore also the straw for bedding, and therefore bedding for animals. And because animals are born on that bedding. And a disorderly accumulation of straw and hay and so forth, then, you know, it's not very far to go from there to trash.

Yeah.

What about stock?

 **Aven:** [01:09:04] Which spelling?

**Mark:** S T O C K

Not A L K. Yeah. I mean, it doesn't just mean a stick basically originally, and then it comes to mean like 85,000 things,

**Mark:** [01:09:14] 85 000 things. Yeah. So it seems that the sense of a trunk or a stem or, a stick or something like that is the original sense. And then metaphorically that extends to the idea of a line of descent.

So, you know, he comes from good stock or whatever. And from there you get anything that's made of wood. So there's a whole bunch of senses made of wood that come from that tree sense. Right. So like a stock as in an artificial support structure. But you also get the financial stock, because that was originally a wooden tally representing a sum of money l the King.

Okay. And hence we get the financial sense of stock. Stock as in equipment and so forth, might've developed from the idea of a branch growing on a trunk. And then from that you get like soup stock or paper stock, which are similar in the fact that their base is some raw material or supply or something.

So in the case of a soup stock, bones and vegetables in the case of paper, stock, rags, and pulp. And then you have other senses, like a hollow receptacle or you know, the object of contemptuous treatment, like the laughing stock,

**Aven:** [01:10:26] does that come from the stocks?

**Mark:** [01:10:27] It probably comes from the stocks again, made of wood.

Right. And you get the sense of the heavy part of a tool and therefore part of a rifle. So the stock of a rifle again, made of wood And so you get all these senses that develop out that way. Right? A couple of other interesting figurative senses: staff, how are those connected staff as in like a stick, a rod or whatever, and staff as in a bunch of employees,

**Aven:** [01:10:55] well, the staff that you lean on, I would have thought would be the original.

And then the staff who are your helpers in a store would be the people you lean on and rely on. Like, you rely on a staff

**Mark:** [01:11:05] And it specifically comes through a military sense. So a staff is originally a military. company or whatever. So the body of officers were your staff, right. And probably is connected to the idea of a staff of authority.

So they follow the staff.

**Aven:** [01:11:19] Oh, okay. Okay. So then not what you rely on, Not what you rely on,

**Mark:** [01:11:23] but they follow the, the staff of authority and similarly band. Right. Which can mean a sort of banner, like a ribbon. Right. Okay. Kind of thing. And that comes to therefore refer to a military unit, a band of men because they all follow the same band.

**Aven:** [01:11:39] Oh, okay.

**Mark:** [01:11:40] So those are some other interesting examples. And the last thing that I want to kind of round off with is: Obviously people have wanted to develop laws for semantic change because

**Aven:** [01:11:52] You mean, laws to describe them

**Mark:** [01:11:54] to describe them.

**Aven:** [01:11:55] Yes. Not against them though. Probably there are a bunch of people who would like to do that too.

**Mark:** [01:12:01] So, sound changes are so nicely predictable. I mean, they're obviously little, lots of little complications, but basically you can develop laws. Right. But semantic shifts, it's more difficult. We can categorize. So we've got all these different categories, but it's much harder to predict

**Aven:** [01:12:18] or go backwards. Right. Like to say from this, it must have gone through this process to get here.

Yeah. Yeah. Which is what you can do with sound changes.

**Mark:** [01:12:26] So it's, it's less regular in terms of its directionality than sound changes are

But, you know, some of the basic things we can say, and this is kind of drawn from a book called *Word Origins* by Anatoli Lieberman: cognates are words that have the same root after developing from the proto form of that root cognate words go their separate ways, and in each language, their sounds may change. These sound changes are regular. However, numerous factors disrupt the regularity of sound correspondences, such as onomatopoeia, sound symbolism, the adoption of baby talk, blending, taboo, the effects of humor, hybrid forms, borrowing and so forth. Similar words need not be reflexes, or continuations in other words, of a proto form. So just because you have two words, that sound the same, it doesn't mean they come from the same place.

If a sound correspondence exists, related words should be assembled on the phonetic principle, but a sound correspondence is only a compass. And we must look for words that have a semantic bond with the words we are investigating.

And of course the important point to make there is you know, that's a very loose term, a semantic bond. Yeah. So they can sort of sound the same and they can, you can see how, but how close a sense do they have to have before you think you've got genuine cognates, right? Yeah. So that's a tricky step.

That's a tricky jump to make there. And of course, similar words may be synonyms, but sometimes we need to uncover the semantic relationships. So sometimes it's obvious. But sometimes we have to dig a little to find why stock and stock are related or whatever. Right, right. And so the meanings of words can drift so far apart that the unity of the word as one word, rather than, two separate words, that can be lost.

And so you know, sometimes we think of them as two separate words, even though they do come from ultimately the same source, conversely different words with vaguely similar meanings can merge and begin to look like they always were the same word.

So that's kind of how etymologists have to think about semantic shifts and how you unravel all of these things. But when reconstructing the root meaning of like a proto language or something like that you want to look for And this is adapted from the book, *The Horse, The Wheel and Language* by David W Anthony. You look for the most ancient meanings that can be found. So it's better to work from, Latin and old English than it is to work from Italian and modern English,

**Aven:** [01:15:08] because there are so many changes that can happen

**Mark:** [01:15:10] you look for the meaning found in all the language branches.

So You want to look for the one meaning that all of the supposed cognates have in common, not one that just exists in one of them. And you want to look for sort of corroborating roots of the root itself. So is the root derived from an earlier root right? And that can make it. And the other thing also in addition to that is you also want to look for the meaning of a root that fits within a sort of semantic field of other roots with closely related reconstructed meaning. So if you can put together a little semantic field, then that lends some credence to your reconstructed prodo meanings. But always you have to think about which is more important when doing etymology, is it the sound correspondences or the meaning, and sometimes it's

either, so. Yeah. So that's a word to the wise for those of you out there contemplating are these two words related or not? You know, maybe, but maybe not.

That was very

**Aven:** [01:16:18] helpful, which is why etymologists like rarely

**Mark:** [01:16:23] agree on anything.

**Aven:** [01:16:24] Yeah. But also when they do agree, don't try to argue with them if they agree, because if they've actually managed to come to a consensus, that's pretty likely.

**Mark:** [01:16:32] If you've got a bunch of etymologists sort of all agreeing on the same connection it's probably true because they are likely to have different ideas if it's not really solid evidence.

Yeah.

**Aven:** [01:16:46] Well, I think that has rolled out to the end of what we wanted to talk about tonight. So we will finish up here and we'll be back probably with an interview next. we've got lots of people we want to talk to about lots of interesting things. In the meantime, stay safe, be well, and let's make it to the summer together.

**Mark:** [01:17:09] Bye-bye.

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Thanks for listening.

**Mark:** [01:17:55] Bye.