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THE CANNON

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A Letter from the Editor



Welcome back, devoted readers (and casual perusers) of *The Cannon!* I cannot believe we are already on our third issue—and that so much has happened since the printing of the last one! From unveiling the redesign of our website (cannon.skule.ca) to connecting with new writers from across the engineering community, I'm so proud of the entire team and everything we've accomplished thus far.

My earliest memories of foreign language are from my mom's parents, who immigrated to Ontario from Calabria, a province in southern Italy. Despite having lived in Canada for decades by the time I was born, they never learned proper English and would often speak in a blend of *calabrese* dialect—which was already distinct from standard Italian—and English. To them, “*bring that to the car*” was not “*portalo in macchina*,” as in standard Italian, but “*portalo in carru*.” It was from my mom's parents that I absorbed my first Italian-esque fragments (in particular, expressions of frustration), which was enough for basic communication between us, and nothing more. I was still young when they passed away, and their language died with them.

When I got to high-school, I had the opportunity to study Latin under a Mr. Mark Timmins. As my knowledge of Latin grew, its similarities to the tiny bit of Italian I had retained became more and more apparent. I felt connected to my Calabrian roots in a way I never really had before—while also feeling so unbelievably frustrated that I had let what small part I had of my grandparents' dialect slip away, having gone unused for so long. The inexplicable link between language and culture was there, laid out before my eyes. By my third year of study, I was reading annotated versions of Roman literature (in particular, Virgil, Catullus, Caesar and Martial) in Latin. In reading these authors in their original language, it was as if I was unlocking a part of *my* literature, a part of *my* history. I felt intimately connected to a society and a time period I hadn't even been alive to experience myself, but was an antecedent to my own.

That was the year I started to try to immerse myself in Italian once again. And now, some five-odd years later, having visited Italy, made friends with Italians and secured my Italian passport, my view on language learning has completely shifted from what it was back when I first picked up my copy of introductory Latin. I've since realized that regardless of how many books I read or people I talk to in my ‘target language,’ it's unlikely that I will ever live my entire life without making a single mistake. Heck, I could probably say the same for English, which I've ‘studied’ for 22 years straight and yet still continue to construct sentences that would make a grammarian shutter. To me, that is okay—more than okay—as I know enough to be able to communicate my ideas, even in the most work-around or grammatically imperfect of ways. It would of course be much easier if everyone on Earth spoke the exact same language, but then the world would be far less interesting.

On that note, it would be remiss of me to publish a “languages” issue and not touch on one of the most popular forms of generative artificial intelligence of our time: large language models. As engineers, it's clear that while these models don't “understand” as humans do, the speed at which they are able to regurgitate syntactically correct sentences makes their responses feel distinctly personal. I will admit there is definitely some utility in such models for improving efficiency across the workforce. However, to me, the real danger (any economic woes aside) is in the loss of genuine thought. It is through language that we express ourselves, connect to one another and interpret the world. I view my voice as *mine* and *mine alone*. The way that I write and speak is a form of self-expression no different to art or music and is in constant flux, developing over time as I immerse myself in all kinds of books and films; speak to all kinds of people; have all sorts of experiences in the world.

It is my sincerest hope that this issue opens your eyes not only to humanity's ‘linguistic tapestry,’ but also to the cultural and historical importance of language. There is so much beauty in how each of us uses language. As you read through the contents of this issue, try to discern the different voices of each author as you experience the topics at hand through their own, individual perspectives.

All the best in the new year—and here's to learning more than just programming languages this semester,

A handwritten signature in cursive script that reads "Christina Pizzonia".

Christina Pizzonia
Editor-In-Chief, 2T5-2T6

P.S. For those of you that follow these kinds of things, *Merriam Webster's* word of the year for 2025 was “slop,” in reference to the large amount of non-human generated content currently circulating online. In what seems like an era that will be characterized by artificially-generated media, my suggestion is to endeavour to create, not consume, and to remember that kindness, love and generosity are the universal languages; they are the ones that keep us human.

The Languages of Grief

Priyanka Madu

Ryūsuke Hamaguchi's *Drive My Car* eases into its world with a quiet confidence, letting the shape of a wavering marriage reveal itself in small, attentive strokes—the practiced routines between an esteemed theatre actor and his visionary screenwriter wife, the slight offsets in the rhythms of their days, and the gradual revelation of secrets accumulating just out of view. It plays like an extended prelude, unhurried and precise, letting us settle fully into their lives before anything has reason to shift.



The aforementioned actor sitting backstage after a successful performance, conversing with his wife and her colleague.

And then the opening credits arrive forty minutes in, not with fanfare, but with the soft finality of a door clicking shut. The actor, Yūsuke Kafuku, is suddenly forced to grapple with the death of his wife, Oto Kafuku, whose absence lingers like the echo of an unfinished line. He finds escapism through the stage of a local theater, rehearsing Chekhov's play *Uncle Vanya* with meticulous attention to cadence, gesture, and diction, all while privately carrying a weight of grief that cannot be rehearsed away. Soon, Kafuku is dispatched to Hiroshima to direct a new production of the same play, where he meets Misaki Watari, a taciturn young driver assigned to transport him between his assigned theater and hotel using Kafuku's flashy, red Saab 900 Turbo. What begins as a practical arrangement gradually unfolds into something more intimate: a dialogue conducted through long drives, shared silences, and the slow, careful negotiation of silent pain.

It would be easy to describe the film as one about grief, but its precision in that

subject matter lies particularly in its portrayal of how grief is inseparable from the languages in which it's conveyed. The production of *Uncle Vanya* becomes both a literal and metaphorical scaffold, framing conversations through actors conversing in multiple languages, including Japanese, Korean Sign Language, Mandarin, and English, while insisting that much of the emotional truth resides in what is not said. Kafuku's encounters, both on the stage and in the car, depend on listening just as much as speaking. The spaces between words carry as much weight as the words themselves. It is here, in these overlapping and occasionally misaligned languages, that the film discovers its most persistent vocabulary: the inarticulate, polyphonic language of grief.

The multilingual dialogue is never ornamental. It is instead a means of demonstrating that communication is less about clarity than it is about fidelity to experience. The cast for *Uncle Vanya* includes a mute actress, Lee Yoon-a. She communicates with Kafuku through the help of Gong Yoon-soo, a Korean Sign Language interpreter. Yoon-a tells Kafuku:

"People not understanding my words is normal for me. But I can see and hear. Sometimes I can understand a lot more

than words. That's what's important in our rehearsals, right?"

The line serves as a hinge, a way of showing that when words fail, emotion and attention behind the manner in which they're conveyed often succeed. Grief, like dialect, is capable of being expressed and misheard, understood and ignored, all at once.

Kafuku's Saab becomes a moving confessional. Over hour-long drives, Kafuku and Misaki reveal the contours of their respective sorrows with measured caution. Kafuku admits his wife's infidelity, while Misaki speaks of an abusive mother. Their disclosures are hesitant, almost halting, their speech punctuated by pauses that feel loud precisely because the audience recognizes the weight of what is left unsaid. There is no tidy revelation, no cathartic conclusion. The film resists closure. Instead, it grants the possibility of understanding the emotional labor required to speak and to listen when carrying the residue of another's absence.

Hamaguchi's use of the theater production within the narrative is particularly striking. Chekhov's *Uncle Vanya* is a play about stalled lives, unrealized desires, and emotional truths hidden behind politeness and routine. The parallels to Kafuku's life are never overtly stated, yet the reflection is



Actress Yoon-a explains the quiet intricacies of her communication through active use of sign language over dinner with Kafuku.

precise. Actor Kôshi Takatsuki lacks the maturity and introspective to play the lead role of *Uncle Vanya*. Kafuku instructs him with the following advice:

"Chekhov is terrifying. When you say his lines, it drags out the real you. Don't you feel it? I can't bear that anymore. Which means I can no longer yield myself up to this role."

[...]

"The text is questioning you. If you listen to it and respond, the same will happen to you."

This guidance does more than shape performance; it articulates the film's core meditation on attention. Just as actors must engage with the subtleties of Chekhov's lines, Kafuku must attend to the subtle, often muted signals of those around him, particularly Misaki. In the film, attention functions as a kind of



One of the many drives shared between Kafuku and Misaki, with their once-suppressed emotions gradually surfacing as their mileage accumulates.

emotional translation. It is not enough to hear words; one must inhabit the space between them, register hesitations, note glances, and observe the cadences of silence. In this sense, grief itself becomes a language to be learned, a code requiring patience and precision. The recurring imagery of roads, highways, and the car interior reinforce this theme. Travel sequences are extended, often with minimal dialogue, allowing the landscape to become a muse for reflection. Kafuku and Misaki move through the city and countryside, but the road is never simply a geographic connector. It is a liminal space where memory, emotion, and dialogue intersect. In these long takes, silence is not emptiness, but instead a medium for absorption, inviting both characters and viewers to register subtle shifts in emotional tone. In one extended sequence, the two drive along



Misaki and Kafuku share a glance after a difficult conversation regarding his late wife, Oto, symbolizing a shift in their emotional distance and a step towards mutual catharsis. Their feelings are out in the open, and no longer strictly confined to the walls of the Saab.

a quiet road flanked by autumn trees. The camera lingers on Kafuku's profile, Misaki's attentive gaze, and the soft rhythm of the car's engine. No words are exchanged for nearly a minute, yet the scene communicates more than a page of dialogue could.

Nishijima's performance as Kafuku crystallizes the film's linguistic subtlety. His grief is internalized, communicated through posture, gaze, and the pacing of speech rather than overt displays. Misaki offers a counterpoint of sparse, deliberate speech, her silences as resonant as her words. Together, they transform the Saab into an instrument for human connection, a vessel

for the articulation of unspoken grief. Their relationship demonstrates that communication is never purely verbal: it is composed of attentiveness, gestures, and shared experience.

The film also interrogates the polyphonic nature of human memory. Kafuku frequently recalls moments with Oto, sometimes verbatim, sometimes partially forgotten. These memories intersect with ongoing events, producing layered moments in which past and present converse. In one striking instance, Kafuku rehearses a line from Chekhov while reflecting on a conversation with his late wife, juxtaposing theatrical instruction with private recollection. This interplay suggests that the performance of grief, like acting, requires navigating multiple registers simultaneously: the present moment, the memory of loss, and the

anticipation of a response from those still living. Kafuku's rehearsals of *Uncle Vanya* become its own form of grief, each line measured, each pause weighted with memory and expectation. The film suggests that his sorrow has been shaped not just by loss, but by the unspoken expectations of others—how one should appear, respond, or endure in the wake of tragedy. Watching him navigate this interplay of memory, audience, and self, we sense that mourning is as much a public choreography as it is a private reckoning.

Ultimately, *Drive My Car* is less about the spectacle of heartache than the intimate mechanics of its articulation. It demonstrates that grief and language share a common topology: neither can fully encompass what they are meant to convey, yet both demand engagement, listening, and patience. The film's multilingual dialogue, its careful attention to Chekhov's text, and its choreography of silence show that the act of speaking, listening, and understanding is in itself a kind of grieving. In the Saab, on the stage, and in the spaces between words, the film shows that the most profound expressions of loss are often those that are never entirely spoken at all.

Drive My Car compels us to listen in the most expansive sense: to others, to oneself, and to the echoes of absence that inhabit our lives. It reminds us that speaking is only one aspect of communication, and that silence can be generative, with attention itself constituting as a profound form of care. ♦

LOST IN TRANSLATION

Juneeta Vangala

“Aujourd’hui, maman est morte.”

The first line of *L'étranger*¹ by Albert Camus is one of the most well-known phrases of French literature. At first glance, it seems that anyone who has taken high school French should be able to translate it. And yet, each translation alters the interpretation. Translating it to “Mother died today”² is accurate in meaning but lacks the warmth and intimacy of ‘maman,’ while “Mommy died today” leans on the other extreme, to the point of infantilizing.

The translation of a single word, ‘maman’, quietly establishes the conditions under which Meursault, the narrator, will be judged by the reader for his later crime. Is he cold and unfeeling, or is he childish and naive? During the trial, the prosecution focuses less on the crime itself and more on Meursault’s apathy towards his mother’s death.

*“J'accuse cet homme d'avoir enterré sa mère avec un cœur de criminel.”*³

Meursault is thus judged not only for his actions but also for his apparent indifference. His guilt lies in his emotional illegibility. It lies in the primal fear that what cannot be read cannot be trusted, and what cannot be trusted must be condemned. The translation of the word ‘maman’ is the reader’s first introduction to Meursault’s emotional register, or the lack thereof. Even before he commits the crime, he’s on trial.

This raises the unsettling question of the extent to which our judgments are shaped by the language they are narrated through instead of the actions. Words and language don’t merely describe reality but help frame it. Even the slightest differences in language reflect biased beliefs of the speakers.⁴

For instance, using ‘claimed’ to report a speaker’s words introduces skepticism in the way that ‘said’ does not.⁵ These word choices appear neutral, but help form interpretation and subconscious beliefs.

The German word ‘Flüchtlingswelle’ (“wave of refugees”) was often used to describe the refugee movement. Although the term had no ulterior motives, it nudged the reader to visualise masses of people rushing in like a ‘wave.’ It inherently holds a threatening and negative connotation. To ‘shield’ themselves from such a ‘wave’, many considered building dams and protective walls.⁶ A single word reshaped the

public’s perception of refugees, which carried political consequences. Here again, language precedes judgement.

Translation exposes this inherent bias in word choices. Words do not exist in a vacuum; they are rooted in intent and habit. They carry context, cultural memory, emotions and nuance.⁷ Translation, therefore, needs to “go beyond the immediacy of the text and seek to articulate in some way the cultural framework within which that text is embedded.”⁸ It is not word substitution, but negotiating between meanings that do not align neatly. Translation cannot be neutral because every act of translation is a choice, and every choice involves some degree of distortion in the name of interpretation.

“Betrayal. Translation means doing violence upon the original, means warping and distorting it for foreign, unintended eyes. So then where does that leave us? How can we conclude, except by acknowledging that an act of translation is then necessarily always an act of betrayal?”

Babel, R.F. Kuang



This loss of meaning exists as words rarely translate one-to-one. ‘Forelsket’, the Danish/Norwegian word for the euphoric feeling of falling in love, has no exact English translation. So does the Japanese word ‘wabi-sabi’, meaning the beauty in imperfections. Even when counterparts exist, they often lack the emotion and intensity of the original word. As R.F. Kuang states, translation is *always* an act of betrayal against the original text. It is weighed down by the bias of the translator’s experience in bridging the gap between the untranslatable. In the case of ‘maman’, the meaning translates, but the emotion

¹ Translated to “The Stranger,” however, the literal translation is “The Outsider.” ² The literal translation should have ‘today’ preceding ‘mother’ but popular translations place it at the end. This does not capture the essence of Camus’ work of placing emphasis on the time. Today is interrupted by Maman’s death. ³ I accuse this man of burying his mother with a criminal’s heart. ⁴ From “The power of language: How words shape people, culture,” by A. Shashkevich for Stanford News. ⁵ From “Was it ‘stated’ or was it ‘claimed’?: How linguistic bias affects generative language models,” by R. Patel & E. Pavlick, in Empirical Methods in Natural Language Processing 2021 Conference Proceedings.

⁶ From “The power of language: How words shape thoughts and emotions,” by M. Alpuim and K. Ehrenberg for the Bonn Institute. ⁷ Even the brain systems involved when processing singular words are much different than those required to process whole sentences or paragraphs with a narrative flow. From “How context changes the neural basis of perception and language” by R. M. Willems and M. V. Peelen, in iScience. ⁸ From “Chapter 1: Culture and Translation” in “A Companion to Translation Studies,” by S. Bassett.

dissipates. It survives the way black coffee survives being flooded with water or softened with milk. The flavour dilutes, robbed of its bite.

Translation, for me, is a subconscious process, the way it is for many bilinguals. While I grew up in a predominantly English-speaking household, the hints of my native tongue and the languages I was surrounded by always shaped my voice. The frustration of struggling to find the right word becomes a process of finding the most accurate way to convey

the feeling that the original word evokes and invokes. All the while knowing no word will capture the emotion and intimacy of my native language. Translation accumulates in layers. Subconscious translation of my original thought and then rendering it to the speaker's language. As these thoughts are further communicated across different languages and people, more layers are added. Through it all, the struggle is to maintain the original meaning. The word becomes an approximation at best, and to speak at all is to accept a degree of

loss. The meaning is never whole, like a shadow cast by a body no longer present. This struggle is why Meursault's case remains compelling. His inner life and thoughts must pass through language before they can be judged, but the language fails him. Matthew Ward, an American translator, chose to retain '*maman*' – '*Maman* died today.' While this does not resolve the problem, it does acknowledge it. And in the distance between '*maman*' and its English translations, Meursault's trial begins. ♦



Hannah Fang



"I wanted to reimagine the classic American game of Scrabble through an alternate transliteration system. Instead of letters from the English alphabet, the tiles use "Zhuyin," a phonetic script for Traditional Chinese. Growing up in Taiwan with English as my second language, this piece explores an alternate universe in which a familiar Western game can be reconstructed and experienced through my own linguistic and cultural lens."

DEATH TO GRAMMAR!

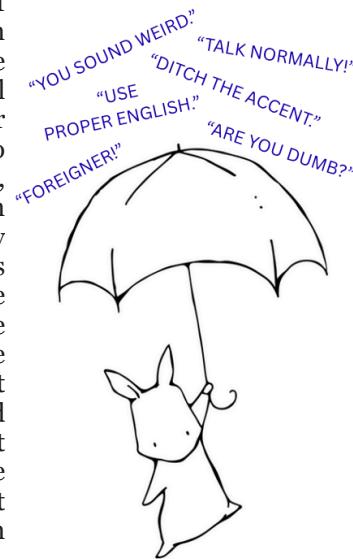
Charlie Therence

As a student of the English language, I was taught a seemingly endless amount of grammar rules that were introduced with—what now feels like to me—way more stress and urgency than was probably needed—what with the increasing use of “me and ___” in daily speech, or the interchangeability of “who” and “whom”, or unconventional language structure in famous literary work—like *Infinite Jest* and its run-on sentences that span multiple pages and should be more than enough to give your high school English teacher the howling fantods—sentences which, I have to admit, were not very easily read, and oftentimes led me to immersive reading; where one reads a book and listens to an audiobook simultaneously, and leads me to question if ignoring traditional English language structure was the right choice in this case (considering the lack of narrative significance) or at least, a good choice, commercially speaking—although I have to also admit that I found them (the run on sentences, that is) quite charming, as I did the rest of the unconventional choices in the book, and, surprisingly, fun to write—although I am aware you may not have found it fun to parse this sentence. What I’m trying to say is that I’m not sure how much I should care about grammar rules anymore. In fact, I’m unsure how much anyone should care at all. This may be a weird hill to die on, or one that will cause debates, but I think I have good reason—especially as someone that used to care very deeply about grammar.

I don’t want my statement to be misconstrued as one born out of ignorance and laziness. It wasn’t that I was frustrated with using proper punctuation or who’s vs. whose, in fact, writing and engaging in other’s writing was the reason I started caring less about grammar. I love words and punctuation; that’s what my articles always consist of—quite revolutionary! Through works of people smarter than me, I was introduced to the idea of language as a fluid medium for storytelling. I do feel that that is the true function of language. Even the most mundane daily conversations are ultimately storytelling. Saying “this is how my day went” or “this is my favourite food” reveals something about ourselves. As social creatures with complex emotions

that go beyond language, I really don’t see any reason why we shouldn’t bend the tools we have at our disposal to further connect with our fellow humans. This also shouldn’t be a new concept, because this is common practice in our daily speech—I start sentences with “and” verbally all the time. If I’m trying to write in a conversational tone over text, why should it be blasphemous to bend grammar rules? With that same logic, why not do the same for writing? I don’t think the rules of English matter all that much. In fact, I think it’s generally good practice to see how you can push language to its limit to fully express what you’re trying to say. It’s good to be more experimental with how you write things—maybe you’ll find an interesting way to deliver an idea that has been incomunicable so far.

Again, don’t get me wrong, I love the English language a lot. Being an immigrant and speaking English as a second language, my language skills were a massive point of pride for me. If I had a consistent, reliable internet connection, I probably would have started great grammar wars in comment sections, armed with OSASCOMP and emdashes. I think it made me feel more educated, maybe even superior, to be able to speak fluent English—which I believe is a sentiment a not insignificant number of ESL kids can relate to. But now that I’m older—and wiser, I hope, this idea leaves a bad taste in my mouth. When I see comments online criticizing someone for incorrect grammar, it seems to always hold the connotation of “I am more intelligent than you” or “you are a classless idiot”. It’s more than frustrating to see intelligent people being put down for their “bad” English by people that only speak one language. This even goes beyond ESL speakers, with dialects like African American Vernacular English (AAVE) often considered “improper” due to differing grammar structures and accent, and speakers considered less intelligent because of this—which is even more frustrating since white southern accents



contain similar features but aren’t subject to the same stigma; or since non-black people on the internet can use their bastardized version of AAVE but are also not subject to the same stigma and even considered hip. What does this say about our perception of dialects and accents and whose mouth it happens to come out of?

Globalization has led us to be more connected than ever, and we have the luxury of fluency in

the ‘default’ language of our world. It’s normal for every new English speaker to bring their own communication quirks—and if it makes sense and aids communication for them, I don’t think it’s the end of the world. Language is a living thing that varies and evolves with its speakers. If it isn’t, we would all be speaking Proto-Indo-European or grunting like cavemen. Think of the Great Vowel Shift; people in the 16th century pronounced ‘marriage’ with 3 syllables. Is Shakespeare an idiot then? If not, are we? It’s pointless to push back against the change that naturally comes with time. English is not a sacred institution but a tool that exists for us to be understood by fellow English speakers. Some rules, of course, exist for a reason and do help others understand us—hence my use of punctuation and minimal use of run-on sentences, even though it seems to contradict what I’m preaching. I do think that grammar has its place in the world; I just think there is some good in ignoring a few grammar rules. We could all benefit from giving others grace for their mistakes or differences in pronunciation.

My disregard for English ‘rules’ is both a natural result of needing to communicate more complex emotions or ideas and a silent protest against the idea of there being ‘good and Traditional’ English and ‘stupid’ English. If you disagree, try it out and maybe you’ll be amused thinking about all the posh English pricks being upset about how you’re ‘misusing’ the language. ♦

A Skuligan's Guide to an EngSoc BoD Meeting

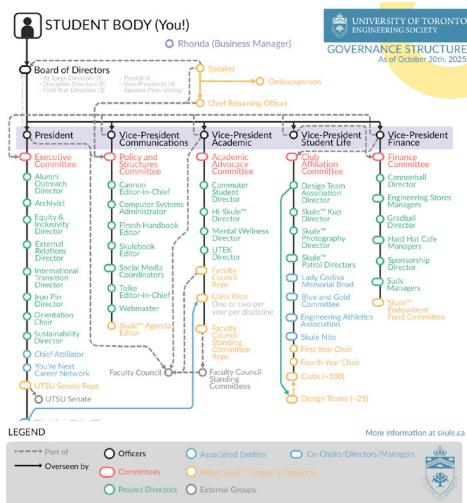
Ethan Mao

Unless you have prior experience with formal meetings—or have studied *Robert's Rules*¹ for fun—the language used in the Engineering Society's monthly *Board of Directors* (BoD) meetings can be quite confusing. Even after my year and a half of experience serving on EngSoc, I still have difficulty remembering all of the rules.

In my never-ending quest to encourage people to attend these BoD meetings (as is your right as a UofT engineering student), I have created this guide to help you navigate the terms and formalities of a University of Toronto Engineering Society *Board of Directors* meeting.

Structure

The *Board of Directors* is the society's highest level of governance and is made up of the 5 *EngSoc Officers* (President, VP Academic, VP Communications, VP Finance and VP Student Life) and 16 elected representatives from a variety of years and disciplines. The names of all BoD Members can be found on the skule.ca website. Anyone who is an undergraduate engineering student is a *Member of the Society* and is allowed to participate in these meetings.



EngSoc's executive structure—the BoD consists of 21 elected representatives, 5 of which are 'officers' who oversee a subset of clubs, committees and more at Skule™

Agenda

BoD meetings always have an agenda that is followed. The first item on every BoD meeting agenda is the “*adoption of the agenda*,” giving people the ability to change the agenda to add or remove items as they see fit. The last item is always “*other business*,” which is exactly as it sounds: an opportunity to bring up anything not previously discussed during the meeting. A typical meeting agenda is primarily comprised of items labelled as *motion*: a resolution or action brought to the board for approval, requiring a vote. These can range from budget approvals to election ratifications. Some other common items you may find in a BoD meeting agenda are *discussion, notice, and report*. These items do not have a vote, but rather serve to provide and/or serve as a record for any additional information.

Actions

As these meetings have a formal structure, any action items have specific methods for being done. As explained above, the most common actions in a meeting agenda are *motions*. *Motions* can be submitted by either informing the *Speaker* in advance of the motion via email, or by attending the board meeting and verbally motioning by saying, “*I motion to do X*.” After a motion has been made, it must be seconded by a *Member* who is not the original motioner. If no one seconds, the motion immediately fails. Afterwards, if you believe the motion should be changed, you can do so by motioning to amend. It gets more confusing when you motion to amend an amendment to the original motion, which are all actions



EngSoc officers, from left to right: Shosh Lebo (VP Student Life), Kenneth Sulimro (VP Finance), Ken Hilton (President), Jim Xu (VP Academic) and Ethan Mao (VP Communications). Photo: C. J. Ancheta

that require seconders. Luckily, you are not allowed to amend an amendment to an amendment. If any member believes that the discussion has taken too long, they can force a vote on whether or not to end the discussion at that exact moment by “*calling the question*” (done so by saying “*I motion to call the question*”). If the vote passes by $\frac{2}{3}$ majority, the discussion ends, and the board moves into voting. Otherwise, discussion continues as normal.

As a *Member of the Society*, you have the power to do all of the above actions at BoD meetings. The only power you do not possess is the ability to vote on motions, a privilege reserved for elected representatives on the *Board of Directors*.

Closing Remarks

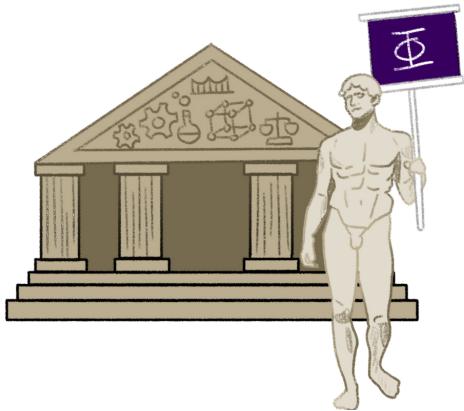
Now with the knowledge needed to attend a *Board of Directors* meeting, I encourage you all to go to at least one so you know firsthand how our Society operates. If you ever wanted to know what that “Ethan Mao, VP Communications” does aside from sending you a constant stream of emails, come to a meeting and listen to his officer report! If you still aren't convinced, know that we have free snacks for in-person attendees! ♦

¹ *Roberts Rules of Order* (first published in 1876), known colloquially as *Roberts Rules*, was a manual designed by US army officer H. M. Roberts for the purposes of codifying proper meeting procedures and decision-making processes.

Etymology for Engineers

Christina Pizzonia

I have long been under the impression that that the closest most UofT engineers will ever get to studying classical languages is through the memorization of common Greek prefixes and letters, due to their use in metric units (e.g. kilogram, megaton, terabyte, etc.) and mathematical notation¹ respectively.



In my rather humble opinion, this disconnect between engineering and classics is a real shame: after all, the vast majority of academic language comes directly from Greek and Latin.² Even the word “engineer” itself is derived from the Latin root *ingenium* (“cleverness” or “ability”) and suffix *-or* (“an agent”)—to be an engineer is to quite literally be ‘one who acts with cleverness.’ Taking the time to understand the etymology of the engineering terms taught at Skule™ will not only provide you with a deeper appreciation for the fascinating history of science (and for the ‘dialect’ of the different disciplines here at UofT!), but will also guarantee that the next time you’re asked for a “fun fact” at an orientation session, you’ll have a dozen linguistically interesting ones ready to go!

Our etymological discussion begins with one of the world’s oldest kinds of engineering: civil (from *civilis*, “relating to a society”—civil engineers were historically responsible for the construction of public works). If the architecture of GB wasn’t enough to

convince you, the stereotypical civil engineer is notorious for their interest in (and justified obsession with) concrete (from *con-*, “with” and *cretum*, “grown”). Concrete is a composite (from *con-* and *positum*, “placed”—composites are [made from parts] placed together”) material consisting of aggregate (from *ag-*, “towards,” and *gregis*, “flock”) bound by fluid cement (from *caementum*, “quarry stone for mortar”). From a linguistic standpoint, concrete is simply the net result of the ‘growing together,’ or binding, of aggregate—often a ‘flock,’ or collection, of sand and gravel—with cement. The word “cement” deriving from “quarry stone” is a bit more unclear: the evidence suggests that quarry stone was mixed with lime during Roman times, which formed the immensely durable ‘Roman concrete;’ the term *caementum* evolved to refer only to the binder (‘cement’) over time.

Civil engineering of course expands beyond just concrete. First-year students in CIV100 (or CIV102) learn about the basic forces of tension (from *tensum*, “stretched” and *-ion*, “action”) and compression (from *con-*, “with,” *pressum*, “held, pressed,” and *-ion*), to ensure future bridges—unlike the students themselves—won’t collapse from sheer (shear?) stress.



(Not my bridge but) one team’s (very
humorous) bridge from CIV102

Upper years can follow their childhood love for trains or Lego into classes on transportation (from *trans-*, “across,” *portare*, “to carry” and *-ion*—transportation is the action of carrying people (or goods) across space) or

construction (from *con-, struere*, “to pile up” and *-ion*—construction is the action of piling up materials together). Perhaps one day some bright Skule™ graduate will be the catalyst for bringing a better public transit system to Toronto...

Speaking of catalysts (from *κατά*, “down” and *λύσειν*, “to loosen, breakup”—catalysts accelerate reactions by ‘breaking down’ bonds between atoms), chemical engineering is another discipline with its own set of interesting terminology. At its core, chemical engineering deals with the conversion of raw materials (from



Monitoring chemical reactions in the fumehood
in a summer research lab

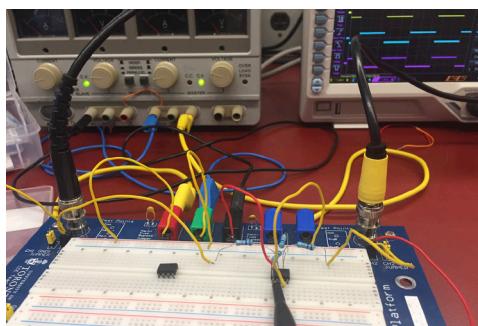
materia, “matter” and *-al*, “relating to”) into useful products (from *pro-*, forward and *ductum*, “led”—products are ‘led forth’ from reactants). Chemical engineers do this by applying principles from thermodynamics (from *θερμός*, “hot” and *δυναμικός*, “powerful”—thermodynamics pertains to [the conversions] between heat and ‘power,’ or energy) and particle kinetics (from *κίνησις*, “motion” and *ικός*, “pertaining to”). This conversion is typically done through the use of unit operations (from *operis*, “work,” *-ate*, “to perform” and *-ion*, “action”—operations refer to the actions of performing [useful] work). These operations can include techniques such as distillation (from *dis-*, “apart,” *stillare*, “to drip, drop” and *-ion*—distillation is the action of falling apart in drops), for physically separating materials; pulverization (from *pulveris*, “dust” and *-ion*—pulverization is the action of turning to dust), for physically combining materials; and synthesis (from *συν*, “together” and

¹ The uppercase phi (Φ), as depicted in the image, is the Greek letter used for the magnetic flux and one of my favourite letters in the Greek alphabet (electromagnetics is an interesting yet vastly under-appreciated field of EE). ² All of the derivations presented in the following article were taken from the vocabulary and grammatical structures presented in the textbook *Greek and Latin in Scientific Terminology* by O. Nyabakken, course notes from CLA201 as taught by Professor David Sutton, and *EtymOnline*, the ‘Merriam-Webster’ of dictionaries for prospective etymologists.

tiθημι, “place”–synthesis is the ‘placing together’ or chemically bonding of new combinations of elements), for either of the above via chemical reactions.

Mechanical (from *μηχανικός*, “of machines” and *-al*, “relating to”) engineers are the ones that bring all of the above to life—if they manage to survive the infamous MIE100, that is. First-year dynamics focuses on the kinetics and kinematics of particles and rigid bodies, as well as vibrations and harmonic motion. This can lead to further study in fields such as manufacturing (from *manus*, “hand” and *factum*, “made”—before modern machinery, most goods were originally produced by hand, hence the definition ‘made with the hand’) or mechatronics (from a combination *μηχανή*, “machine” and *-τροφή*, “instrument”—the perfect mix of machines and electronic instruments).

Of course as an EE myself, I might be slightly biased, but I still maintain that electrical (from *ἤλεκτρον*, “amber” and *-al*, “relating to”—the first instance of what we know today as static electricity came from the notion that substances like amber, when rubbed, would attract other substances) engineering has some of the most fantastical and historically intriguing derivatives of all the engineering disciplines. Electrical engineering encompasses everything from magnetism (from *Μαγνησία*, “Magnesia” and *ἰσμός*, “condition”—stones that have what we now would describe as magnetic conditions came from the city of Magnesia) to photonics (from *φῶς*, “light” and *-ικός*, “relating to”—photonics is a branch of optics related



A electrical lab in GB341, featuring a power supply, oscilloscope, resistors and coaxial cables

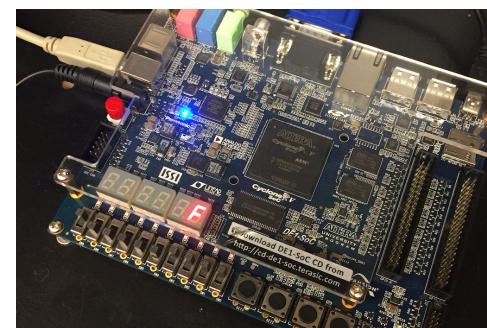
to the study of photons). In ECE110, first year students are introduced to GB341: UofT’s home for a variety of coaxial (from *con-*, “with,” *axis*, “axle” and *-al*—coax cables are objects ‘with two axes,’ consisting of 2 conductors lying parallel to one another, separated by a dielectric) cables, power supplies, oscilloscopes (from *oscillare*, “to swing” and *σκοπεῖν*, “to look at, examine”—an oscilloscope is an instrument used for measuring electrical waves, which ‘swing’ up and down) and, it goes without saying, very helpful TAs.

Most of the standard circuit components encountered throughout first and second year are named from their classical equivalents as well—including resistors (from *resistere*, “to remain, stop” and *-or*, “agent”—resistors limit or ‘stop’ the flow of electrical current), inductors (from *in-*, “into,” *ductum*, “led” and *-or*—inductors ‘lead in’ or induce an electromotive force), capacitors (from *capacis*, “able to hold” and *-or*—capacitors ‘hold’ electric charge) and diodes (*διόδος*, “road, passage”—diodes let current pass through in one direction).

Although computer (from *computare*, “to calculate,” and *-or*, “agent”—a computer is simply ‘something that calculates’) engineering is a relatively new and technologically (from *τέχνη*, “art, skill” and *-λογία*, “the study of”) heavy discipline, this doesn’t make the classics any less relevant. The modern-day computer is made up of millions of transistors, which are connected to form modules of combinational and sequential logic. “Sequential” circuits, from *sequentis*, “following” and *-al*, “related to,” refers to circuits whose outputs are formed from both the current and previous inputs; sequential circuits ‘follow’ previous inputs and ‘have’ memory. Simple modules such as multiplexers (from *multi*, “many” and *plexum*, “folded”—literally ‘folding many times,’ since multiplexers reduce many inputs to a single output) and adders can be used to form more complex structures, such as processors (from *pro-*, “for,” *cessum*, “moved” and *-or*,

“agent”—processors are the agents that move things forward).

At the highest level, where engineering intersects computer science, computer engineers can study topics such as cryptography (*κρυπτός*, “hidden” and *γράφω*, “to write”—cryptography was originally the art of writing using secret characters) and artificial (from *artis*, “skill,” *feci*, “made” and *-al*, “relating to”—artificial objects are made with skill, therefore made by man) intelligence (from *inter-*, “between” and *legere*,³ “to read”—to ‘read between’ is to discern, to be capable to understanding complex topics).



A field programmable gate array (FPGA), which can be used to implement modular designs

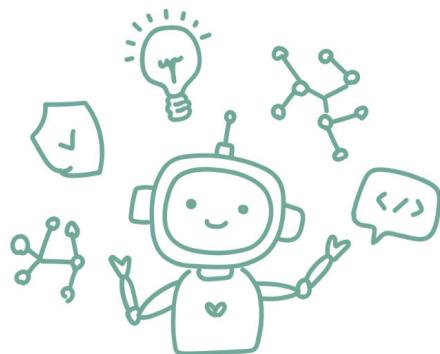
Despite the fact that some (or most!) of the terms presented in this article may feel completely foreign to you, I’d encourage you to read more about the history and terminology of disciplines beyond your own, which share many of the same prefixes, suffixes and roots. As much as Skule™ definitely has its fair share of inter-disciplinary rivalry, we are all engineers in the end, and we all (at least I hope) are working to make the world a better place. I’d like to imagine that, in reading this brief article, you’ve gained at least a little insight into how scientific terms come together, so that when you eventually go on to discover the newest nanomaterial, or decide to create a brilliant start-up, you’ll have the tools to pick a ‘classically informed’ name for them—and think back to that one time at Skule™ when you picked up a “languages” themed copy of *The Cannon*. ♦

³ Throughout this article, you may have noticed that different verb tenses were presented depending on the scientific term being analyzed. For example, *leg-ere* (to read) vs. *cess-um* (moved). This is because verbs in Latin take different forms, known as ‘principal parts,’ depending on their grammatical tense. In a Latin dictionary, you’ll often find each of the 4 principal parts in a single dictionary entry: *mittō* (I send, present indicative), *mittere* (to send, present infinitive), *misi* (I have sent, perfect active), *missum* (sent, supine). In the construction of English words, which principal part is used often depends on the suffix attached and the resultant word’s part of speech. A common example is in the verb *transmit* (from *mittere*, “to send”) vs. the noun *transmission* (from *missum*, “sent,” since it has the added *-ion* suffix): while *transmit* and *transmission* look different, they are ultimately derived from the same Latin verb.

Science & Research

Should you be Talking to ChatGPT in Polish?

Maria Arusiag Saatgian



My mom sent me an Instagram post the other day. I expected to find the latest health hack, or maybe some interior design inspo, or perhaps even an AI-generated video of babies and puppies, but I was mistaken. It was a post announcing that Polish was found to be the most efficient language for prompting large language models (LLMs). She didn't quite understand, from the short (and probably AI-generated) caption, *why* Polish seemed so successful, and neither did I. But she had asked me, her local language nerd and former computer science student daughter, to conduct an investigation and deliver the answer. The topic predictably piqued my interest, and I am now not only doing my daughterly duties, but also spreading the word far and wide.

The study that shed light on the pinnacle of Polish performance was titled “One ruler to measure them all: Benchmarking multilingual long-context language models” and was submitted in March 2025 by Yekyung Kim et al. at the Conference on Language Modeling. Kim is a third-year PhD student at the University of Maryland, focusing her research on natural language processing.¹ The authors present ONERULER, a set of LLM evaluation tasks that serves as “a multilingual benchmark designed to evaluate long-context language models

across 26 languages,” using context lengths from 8000 to 128,000 tokens.

ONERULER uses two main types of tasks to evaluate the LLMs in each test language: needle-in-a-haystack search & retrieval tasks, and information aggregation tasks. The search tasks involved having the LLMs get either one value, no values, or many values, from key:value pairs within a larger body of text. The aggregation tasks were aimed at seeing how the LLMs would perform at keeping track of how frequent a word, theme, or concept would appear in a body of text. The results of these tasks lent themselves to many interesting conclusions. Across the board, the models were great at retrieving, but much less so at aggregating, especially as context length increased. Most surprisingly, despite having the most available context resources, English and Chinese were not the highest performing languages: Polish was.

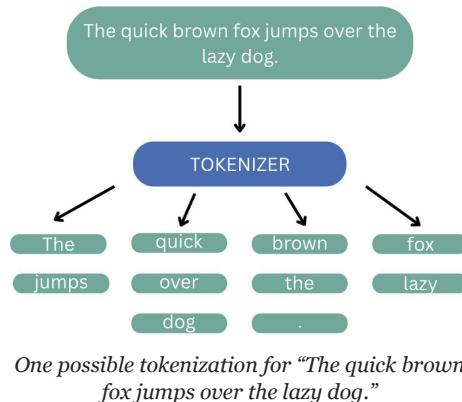
Before we dissect this phenomenon, let's review the basics of how LLMs work. We begin with training and input processing, both of which start with *tokenization*. Tokenization occurs when the model processes text and converts it into tokens, which can be a word, part of a word, character, or symbol.² For training, the model tokenizes the text from the training resources provided, and it learns relationships between the tokens. In other words, it learns which words or word parts occur most often in which contexts. When processing an input prompt, it must also turn it into tokens in order to find relevant information, and related words

and concepts. Afterwards, the LLM produces an output. We will refer to this as the decoding step. In basic terms, the LLM chooses its next output word as the word with the highest probability to occur next, based on the context given and the words it has produced thus far.³

Now back to Polish. What makes it so uniquely suited to LLMs? I found a great analysis of this phenomenon in the article “Polish Beats English: What New Research Means for Your AI Usage,” by Stanislav Lvovsky, postdoctoral researcher at the University of Helsinki with a PhD in Modern and Medieval languages from the University of Oxford, and an MA in Public History from the University of Manchester. Let's break the answer down into three parts, which were also highlighted in Lvovsky's article: writing system, grammar, and available resources.⁴

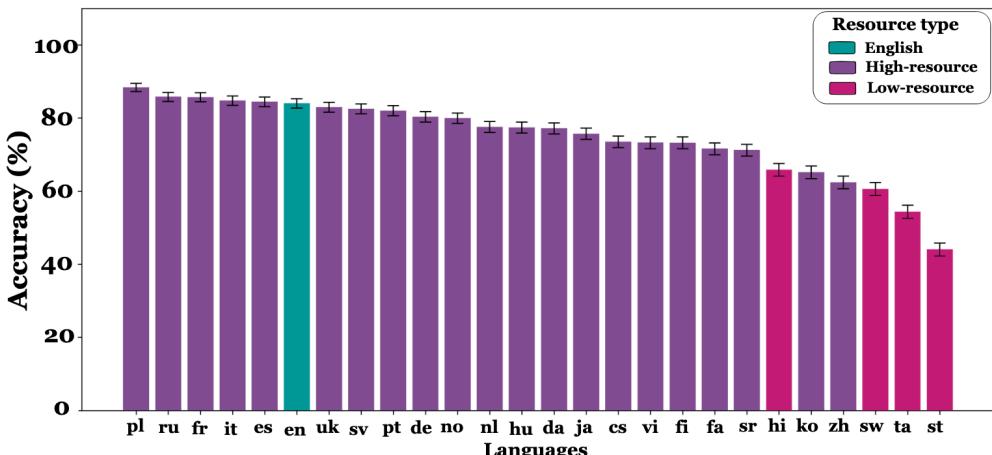
Regarding writing systems, the ONERULER study revealed that languages written in alphabets outperformed those with symbol-based writing systems like Chinese and Japanese. The reason for this, Lvovsky points out, is that the models' tokenization process, called byte-pair encoding (BPE), was designed for languages using alphabets. In BPE, pairs of tokens, starting at just characters, are collected until a defined vocabulary is formed.

Frequent words or parts of words thus become tokens.⁵ Examples of strings that could be tokenized in English are “word”, “cat”, “give”, the prefixes “un” or “mis”, the suffixes “ness” or “less”, the plural ending “s”, etc. The Latin alphabet makes it easy to split these



words into their common recurring, as well as grammatically and semantically meaningful, parts. We not only know that “un” is found at the beginning of words, but also that its consistent meaning of negativity provides common contexts to the model in which it is found. These contexts are essential in predicting other tokens in the model’s decoding step, which we will see more of when we discuss grammar.

From the ONERULER results, we see that the top performing languages are from the tested Slavic languages (Polish, Russian, Serbian, Ukrainian), tested Romance languages (French, Italian, Spanish, Portuguese), and tested Germanic languages (English, German, Dutch, Swedish, Norwegian, Danish). All of these languages use alphabets, more specifically: Latin and Cyrillic.



Accuracies by language for 64k and 128k tokens, from Y. Kim’s 2025 paper on the ONERULER benchmark: symbol based languages such as Chinese (zh), Korean (ko) underperform

As seen in the article “Working with Chinese, Japanese, and Korean text in Generative AI pipelines” by Anthony Shaw, who works at Microsoft and has a PhD in Computer Science from Macquarie University, the case is very different for symbol-based languages such as Chinese, which uses a writing system with ~97,000 symbols. Since models have fixed vocabulary sizes, they cannot assign one token per symbol efficiently. Because of this, they break the symbols down and assign tokens to parts of symbols. Unlike with English

and Polish, since these parts of symbols are broken off arbitrarily by frequency, they are not human-readable, and do not necessarily hold grammatical or semantic value on their own. This leads to an inefficient tokenization process. The behaviour of BPE tokenization on syllabic writing systems such as Korean Hangul, where each character is a group of three sounds, is also interesting. Here, BPE works with Unicode code points, not the individual letters, and one Hangul symbol of three letters is treated as one unit, and tokenized based on frequency. If it appears often, it may get one token, however, less common syllables are split into more tokens, as with the Chinese characters.

Shaw’s analysis shows that when taking 2 million translated sentences and looking at token ratios to English, Japanese and

worth of input from each language with the tokenizer `tiktoken` `cl100k_base`, and then using that amount of input for all other models. Then, they ran the benchmark again while first ensuring the *same amount of context text* was given to each model, which led to a drastically varied number of tokens per model.

The results they observed were really intriguing: the findings were similar, the same language families were the most high performing in both cases. This points us to seeing that the whole picture may not lie only in the *number* of tokens created by the tokenizer.⁶ Recall that the tokens of non-alphabetic languages are often arbitrary parts of symbols, and do not contain grammatical or semantic information. We will look into more of the factors at play, regarding what is tokenized, not just *how much*.

What makes Polish particularly shine through is its grammar: Polish is a *fusional* language, as labeled in the ONERULER paper.⁷ In fusional languages, also called inflected languages, words can take on single affixes (prefixes or suffixes), called *inflectional morphemes*, where each affix can encode for grammatical, semantic, and syntactic meaning. An inflection is a “process ... in which a word is modified to express different grammatical categories”. For example, you may be familiar with verb conjugations in Spanish where adding the suffixes “-oy” and “-ás” to the root “est-” of the verb *estar* (“to be”) can form *estoy* (“I am”) and *estás* (“you are”), indicating the person and tense of the verb.

Similar changes occur in Latin, which exhibits case endings for nouns that determine the role of a noun in a sentence. For instance, if a noun is a direct object, it must take the appropriate accusative case ending, such as the word *puella* (“girl”), which takes the “-am” feminine accusative singular ending and becomes *puellam* in the sentence *puellam video* or “I see the girl.” Polish has many such inflections: verb forms have different endings for person and

⁶ Note that although we can deduce this from the ONERULER results, the authors do not make further hypotheses on how, past looking at the number of tokens, perhaps, the grammar of the language and tokenizer’s compatibility with it affects the languages’ performance (since this is a bit beyond the scope of the paper). In future research, it would be interesting to see the performance of models with tokenizers specifically designed for a target language, such as the AraNizer tokenizer in the ArabianGPT model presented by Anis Koubaa. It would also be interesting to test the ONERULER or similar benchmarks with token-free LLMs – models that tokenize only at character-level or byte-level, such as the token-free variant of Qwen-chat-7B introduced by Chengyue Yu et al. from Ant Group, an affiliate of Alibaba group. Token-free models seem to be more compatible with Chinese and avoid its aforementioned issues with BPE based tokenizers. ⁷ For more information on the topics discussed in the next three paragraphs, I recommend the Wikipedia articles on “Fusional language,” “Inflection” and “Polish grammar.”

tense, adjectives have different endings for gender and number, and nouns not only have different endings for different gender and number but also for seven different cases (nominative, genitive, accusative, dative, locative, ablative, and vocative).

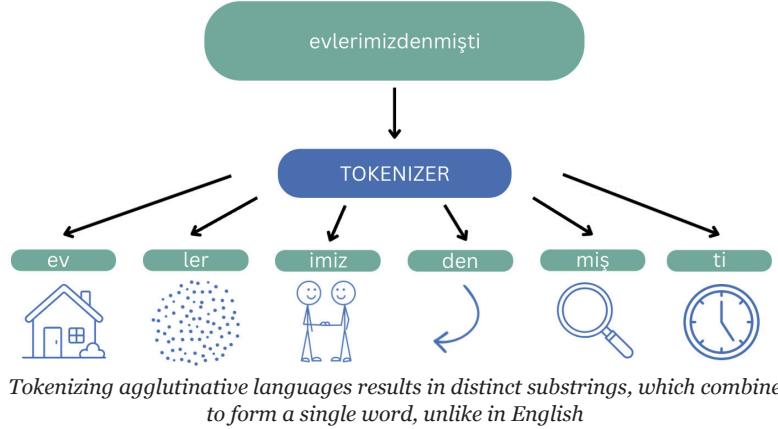
To see how this grammar contributes to efficiency in tokenization and decoding, we can take a look at some examples. First, *daję kotu jedzenie*, or “I give food to the cat.” Here, *kot* is “cat” (or “the cat”) and *kotu* is “to the cat.” For tokenizing purposes, we could tokenize *kotu* as one token if it happened to occur particularly often, or as two tokens, one being *kot* and one being the dative masculine suffix “*u*.” Both of these are more efficient than the three tokens it would take in the English “to”, “the”, “cat.” This packed grammatical information makes tokenization more efficient. In the case of decoding, If we were to predict the next word in the sentence *daję kotu* or “I give to the cat” solely based on grammar, we would expect an object (since a verb has come before) that can be transferred to something else (since *kotu* is in the dative case). The amount of grammatical information included in the existing words restricts the options for what can come next, increasing precision in the decoding step. Additionally, packing “I give to the cat” in just two words is much more efficient for keeping track of context.

Another example is the sentence *piszę piórem* or “I write with a pen”: we can again see that more meaning is packed into less words. In English, in the decoding step, it would take adding three tokens to the string “I write” to get “I write with a pen,” where the probability of each “with”, “a”, and “pen” must be factored in. But in Polish, we may only need to add one token for *piórem* based on its probability. If “with a pen” is the desired way to complete the sentence based on context, getting to it is quicker in Polish than in English. The grammar greatly constricts what words can come next. If we were to have the noun *pióro* with the instrumental ending “-em” in the decoding step, the grammar already gives us the information that we would most likely expect a verb following a noun in the instrumental

case. However, “with” doesn’t always have an instrumental connotation in English, so even saying “with a pen” does not perfectly mean “in using a pen as a tool for __”, making the rest of the sentence more statistically open-ended.

It is this high amount of specific grammatical and functional information per word that sets Polish apart. Other languages may have a lot of semantic meaning per word, but do not let models make the same use of their grammatical information. One group of such languages are agglutinative languages—a group of languages where words can be made by stringing word parts together, adding semantic and also grammatical information. As seen in the ONERULER paper, these languages do not perform nearly as well.

Let’s look at Turkish as an example of an agglutinative language to see why that is. Like Polish, it is written with the Latin alphabet and has lots of published and available data resources, so grammar is the defining factor in the language’s relative efficiency. Let’s look at the Turkish word *evlerimizdenmişti* (“it was allegedly from our houses”).



We can see that it is itself a standalone sentence, and can be tokenized on its own or broken into any substrings of “*ev*” : “house”, “*ler*” : plural ending, “*imiz*” : “our”, “*den*” : “from”, “*miş*” : “allegedly” and “*ti*” : “was.” Thus, tokenization per word is more convoluted and can be difficult to do efficiently if the tokenizer is not created for Turkish specifically. This word is very unlikely to be found on its own in many sources and thus the model would not have learned how to predict based on it very much. Although *evlerimizdenmişti* on its own technically does have grammatical information (it is a sentence), it does not tell us about its use in context, like a fusional

language would, so the model’s possible predictions are not restricted by the grammar aspect. In Polish, the words are shorter but much more versatile. The model has seen, for example *kotu* or “to the cat” in very many contexts and has learned what is likely to follow it. Thus, the fusional grammar of Polish is more effective in tokenization and decoding than agglutinative grammars.

Lastly, it is worth addressing the point of resource availability. The ONERULER paper reveals that high-resource languages, those in which there is lots of information available and for which a large training dataset can be compiled, out-perform low-resource languages. Therefore, unfortunately, even if a language is very suited to the tokenization and decoding processes of an LLM, if it is not a widely-spoken language, especially online, it is unlikely to stand a chance against others. Lvovsky states that Polish is in the ‘Goldilocks zone’ of representation. Although there may not be as much information available in Polish as in English or Chinese, there is still a substantial amount available, and on top of that, the information is on average less biased than in dominant languages. This makes sense since, if there is a lot of information available for a language, but it only discusses certain opinions, contexts, or fields, it is only very useful for handling prompts that align with those opinions, contexts, and fields. Having more vast and thus unbiased ‘not-too-hot – not-too-cold’ training data available is thus beneficial.

Overall, there are many factors that contributed to ONERULER’s finding that Polish appeared to be the most efficient language for LLMs such as writing system, grammar, and available resources. As someone who is fascinated by the intricacies of how languages work, I am intrigued by the implications of using results like the ones from ONERULER along with in-depth grammatical and linguistic knowledge to help a model also better “understand” how a language works, or to be more adaptable to all languages. On a final note, I am now definitely more motivated to experiment and prompt more in my native language, and I encourage you to give it a try as well! ♦

The Shaping of a Language Through Colonialism

Justine Gaw

As a part of the Austronesian language family, Filipino (or Tagalog, depending on who you're talking to), is rooted in languages from Malaysia, Indonesia, and Taiwan, but heavily influenced by Chinese and Sanskrit as a result of historic trade routes. Today, it is jarringly similar to Spanish, a natural side effect from colonialism, with a plethora of loan words from English, and most distinctly, is written in the Latin alphabet with little to no variation in letter pronunciation. Although Filipino is the national language of the Philippines, it shares the stage with English, since a good segment of the population cannot speak Filipino fluently. It is also worthy to note that the Philippines contains several ethnic tribes, like the Cebuanos and the Ilocanos, with the Tagalog people being only one among these groups. Tagalog, which has become Filipino, does not currently represent the dialects spoken by these people, and so isolates the rest of the Philippines. The Filipino language wasn't always like this though, and it is vital to consider the vast differences in the Philippines pre-colonialism, post-Spanish, and post-American occupation.

The most significant difference between the Filipino languages prior to any occupation versus now may be the writing system. Baybayin was the alphabet used, and it followed the signature shape of typical Southeast Asian writing systems, with curving, flowing shapes primarily derived from ancient Indian Brahmin scripts. Baybayin is not a true alphabet, and is rather an alphasyllabary, which combines consonants and vowels instead of separating them, with vowels typically appearing as diacritical marks.

The Spanish occupation of the Philippines occurred early in the development of the country. Tribes had formed, called *barangay*, making the country a composition of fragmented groups of people with distinct cultures and languages. The Spanish colonized *barangay* by *barangay*, and soon set their capital right in the center of Luzon, the northmost main region of the Philippines, where Tagalog was spoken. Tagalog grew in status, as it was the primary form of communication with the Spaniards, but as time passed and the Philippines developed culturally, religiously, and economically under

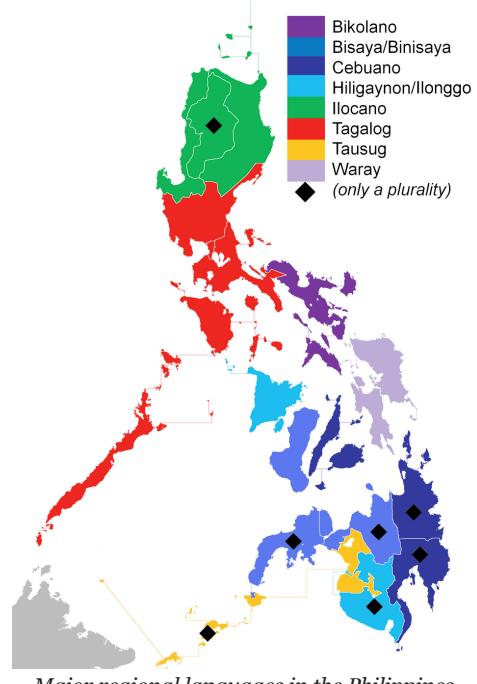
Spanish rule, the language began to adopt Spanish loanwords and undergo fundamental grammatical evolutions.

Filipino still maintains its identity as a language in its own right, but three hundred years of Spanish occupation and the establishment of Spanish as the national language during this time has made an irrevocable mark on not just the lexical structure of Filipino, but also the culture and values behind the language. The Spanish introduced Catholicism to the Philippines, and with that a whole slew of new vocabulary, traditions, and concepts that bled into the culture and the language. Notably, the concept of *utang ng loob*, the debt of gratitude, or the moral obligation to pay back debts that can never be paid back, like the provision of a parent. These values of community and interconnectedness fundamentally evolved Philippine culture from the segmented *barangay* mindset to the highly complex maze of status and obligations it is today.

Post-Spanish occupation Filipino is similar to the Filipino language today except for one crucial factor: English. The Americans "fought for Philippine independence" (that is, bought the Philippines from the Spanish like a 20 million dollar sack of meat), and the Philippines now had a new oppressor that imposed a new language to be used across the nation. English became a required subject in many schools, bled into governance and business language, and embedded itself into the Filipino language itself, forming the amalgamation of code-switching colloquially referred to as "Taglish." Even after Philippine independence from America, English still remains one of the national languages, and is the language of instruction in most private schools and universities.

While our eyes are fixed on Tagalog, which has been seen as Filipino all this time, let us not forget all the other ethnic languages and dialects that were evolving with slightly differing cultural influences. Down south in the archipelago in Davao, *Davaoeño Cebuano* is the language of choice, a mix of Tagalog and Cebuano with a unique vocabulary and structure specific to Davao. Far up above central Luzon,

Map: Howard, licensed under CC BY-SA 3.0



Major regional languages in the Philippines

Ilocano is one of the main languages spoken. These languages are all mainly written in the Latin alphabet and may share some similarities to Tagalog, but are distinct languages, not simply dialects. The issue with Tagalog being "Filipino" is that it does not represent these groups of people and therefore cannot be called the overarching language of the Philippines because it simply is not.

The Philippines was never able to grow as a country in its own right before the occupation of the West, and there remains to be a fragmented sense of cultural identity and even shame in the language. Children in well-to-do families are sent abroad or sent to international schools with English as their first language because "what would you do with Filipino outside of your hometown?" There is Pinoy pride, yes, but there is also centuries-old experience of being the lower class—the dirt of your own country so to speak—that we have developed a mechanism that distances ourselves from embracing our culture. Perhaps the Philippines has been educated and civilized by violent conquest, but at the end of all of this, will there be a Philippines left to colonize? Is there joy in shackling wrists already waiting? ♦

An Anecdotal Guide to Language Learning

Nusaiba Rakhshan

Learning a new language is an experience I would describe as almost magical. Eventually, after you've been practicing long enough, there's that moment when you realize that you can now easily understand words and phrases that were once completely foreign to you. To me, nothing can beat that satisfaction.

However, if you've ever tried learning a language from scratch, you know there's a long and bumpy road to travel before reaching that point. After the initial excitement of learning "hello" and "how are you" wears off, seemingly endless frustration awaits. However, it doesn't have to be this way—by choosing the right methods that suit your needs and goals, your journey can be just as enjoyable as the end result.

I'm no polyglot, but I do think I've tried quite a few language learning methods to meet a variety of goals. From this experience, I believe that to maximize overall fluency, you need 3 things: a good curriculum to follow, some kind of immersion, and supplementary tools specific to your target language.

Step 1: Find a Good Curriculum

The right curriculum for you will vastly depend on your learning style and budget, but here are some of the most popular options available.

Duolingo

I'd like to start by addressing the green owl in the room. If you're a believer in Duolingo, I suggest you skip this section. Cover your ears. The truth is, if you want to learn a language fast and efficiently, I don't think Duolingo is the way to go. While the courses do cover proper grammar and vocabulary, the sentences you're tested on are often quite impractical. It's hard to hold a proper conversation when your head is filled with phrases like "my mother eats pencils" and "can the sheep drive?" Furthermore, most lessons involve forming an answer from a word list, so I personally found myself able to guess my way through. However, when you're face to face with someone trying to have a conversation, there's no word bank to help you. All in all, if Duolingo works for

you, then the more power to you. But if Duolingo is the only resource you've tried for your target language, I suggest giving other resources a try as well.

Textbooks & Written Resources

Personally, written resources are my favourite way to self-teach. In my opinion, they're much easier to follow than apps because you can see exactly what type of content is coming up.



Apps usually structure their content by situation—you might find sections like "Greetings" or "Going to the Supermarket"—but these don't tell you what kind of grammar you'll be learning. On the other hand, textbooks and blogs are usually structured by grammar concept, which makes it much easier to skip over concepts you already know and really focus on the parts you actually should be spending time on.

Institutional Courses

My first ever experience with language learning was in 4th grade when we started learning French in class, as required by the TDSB. I enjoyed learning French, which is what motivated me to take it every year from 4th to 12th grade. Yet even after those 9 years of learning, I cannot hold a proper conversation in French, even though my grades were pretty good.

Which just goes to show that the problem was we were taught how to pass French tests, not how to actually speak French. We rarely practiced speaking, and listening assessments were not only scarce, but nothing like how native speakers actually speak French. In any case, while I did still enjoy it, I don't think it was the best way to learn French.

However, that is not the case for all institution-led courses. When they are dedicated to administering a well-rounded curriculum, language classes can be one of the best ways to learn, and that was certainly true of the

Japanese class I took at UofT. It gave me access to so many resources that accelerated my learning: a great textbook, lots of practice partners, and a native instructor as a reliable source for answers and feedback. It also meant I had time allocated to practice, instead of having to make the time myself. For that reason alone, I would highly recommend enrolling in a language course to fulfill your CS electives.

Step 2: Practice Immersion

There are so many different ways to immerse yourself in your target language, but here are a few of the things I'd recommend.



Oral Input

First, start off with TV and movies in your target language, with subtitles in your native language. Then, when you're comfortable enough, try using closed captioning in your target language. Finally, try listening to audio with no subtitles or visual clues.

There are lots of YouTube videos and podcasts specifically for listening practice, but the topics can be so general that they end up being boring. Instead, choose a topic you're already interested in and try to search for related videos or podcasts meant for native speakers of your target language. The same holds for social media: if you're going to scroll on TikTok videos or Instagram reels for hours on end, you might as well do so in your target language.

Written Input

Not all written input is created equally. Comics and graphic novels have a much lower barrier to entry than traditional



novels. The language is simpler and the images provide important context clues to help you understand what you're reading, so I would recommend starting with comics first. When moving onto novels, make sure to choose an appropriate level—for example, a novel for children or a short novella. Definitely do NOT make the mistake of trying to read *Les Misérables* in

French with no prior experience. Written articles such as news articles or social media posts typically fall somewhere in the middle, depending on your experience. While these pieces are shorter in length and less intimidating, they often have hyper-specific, technical words or slang that aren't as common and can be more difficult to understand without adequate context. The advantage with these however, is that being on the web, they always have selectable text, so you can easily right-click and search up words you don't know.

Oral Output

Getting involved with other language learners and native speakers is the best way to supercharge your learning. Outside of taking a course, a great way to find practice partners is to join a club or community event. For example, the Language Exchange Initiative (LEI) at UofT holds free language lessons every week, taught by student volunteers, while some student associations hold "language cafés" for a space to practice your language with other learners.

You can also easily find practice partners online using an app called HelloTalk. The app is centered around finding language partners that are fluent in a language you want to learn, and also want to learn a language you are fluent in. You can chat with language partners via text, or call both one-on-one or in a group. It also has its own social media feed, where people often ask questions, write about their day in their target language, highlight local culture and so much more. This is a great place to practice writing, since it has dedicated features for native speakers to provide any relevant critique and point out your mistakes.



Written Output

The best way to practice writing is to write whatever aligns with your goals. For example, if you want to get a job, you should specifically practice writing resumes, cover letters, and any kind of documents you may need to write on the job. Though, whatever your goal is, I would recommend also doing practice questions with a variety of different prompts to improve your general writing skills.

Beware though, writing without guidance or critique may lead to developing a bad writing style. You might end up using awkward phrasing, unnatural levels of formality, or uncommon and outdated words, and you'd be none the wiser because it could still be grammatically correct and carry the same meaning. Try to get critique, either in person or using apps like HelloTalk, and make sure to read a lot to get a better understanding of what natural prose sounds like.

Step 3: Use Supplementary Tools

You will most likely need other tools along your journey which don't provide a curriculum or immersion. Beyond notes and flashcards, you could try any of the following.

Dictionary Apps

I highly recommend finding a good dictionary app. Ideally, it should be fully functional offline and have a few extra features, such as: 1) Example sentences (important for understanding the context of the word you're looking at, especially if there are multiple meanings or ways to use it), 2) Frequency labels (useful for when you're searching for a word in your native language and get multiple results) and 3) Word lists

(being able to save words you've searched up so that you can review them later helps with immersion, since words related to the subject matter of your source will tend to pop up frequently).

Translators

You probably know this, but use them with caution. Translators

often mess up context if you don't give it enough to work with. In languages with different levels of formality, they'll give you a very formal sentence just to be safe, but that can make you sound very unnatural if it's not appropriate for the situation. A fail-safe method is to use it like a sanity checker. Form a sentence in your target language, then translate it back to your native one and see if it's what you expect.

Online Forums

The most reliable source is a native speaker, but if you don't happen to know one personally, there are many places to ask questions online. Some examples are dedicated language learning Discord



servers, the language exchange subreddit, italki and HelloTalk moments, but the most dedicated place strictly for language learning questions is a website called HiNative. You'll definitely get your answer within a few hours, often accompanied by a long-winded grammatical explanation.

The True Trick to Efficiency

OK, so you've made it to the end. Here's my last piece of wisdom: while choosing resources to guide you well is vital, the most important factor in progression that feels quick and effortless is choosing something you really enjoy, even if there's an objectively faster route. After all, even if a textbook might be a smoother shortcut to mastery, there's no point if you never get around to reading it.

Pick something you'll actually commit to and do regularly. If after trying everything, that's still Duolingo, then I concede. If you're having trouble building habits, pick something that's easy and already a part of your life rather than trying to schedule in learning. Try replacing your existing TV time with foreign language shows, or listening to podcasts during your commute.

My final piece of advice is to be kind to yourself and have patience. Language mastery is a lifelong endeavor, even for native speakers, and the truly successful people are the ones who embrace the challenge.

Best of luck on your language learning adventure! ♦

Humour & Comics

SYNTAX, SEMANTICS, AND SWEARING

Rauha Ahmed

Before anyone invented agriculture or religion, they invented swearing.

Swearing is one of humanity's oldest shared traditions, and wherever language has existed, so too has the irresistible urge to misuse it creatively. Cave paintings may not record the first insult, but it is comforting to imagine a prehistoric hunter carving a bison on a wall and muttering something equivalent to "you mammoth-brain!" about his neighbour.

Across time and geography, swearing has come close to becoming a form of art. The ancient Greeks preferred poetic contempt, the Romans leaned toward vicious specificity, and medieval Europeans discovered that nothing wounded quite like involving someone's mother. Meanwhile, other cultures perfected subtler forms of verbal assassination, honeyed words that didn't sting until you mulled over them several days later.

Consider this not a catalogue of bad language, but a celebration of linguistic ingenuity. Swearing, after all, is language at its most honest, so clutch your pearls, loosen your vocabulary, and prepare for a cultural history lesson that can be, by nature, somewhat inappropriate.

IN THE BEGINNING, THERE WERE BAD WORDS

Proto-Indo-European (PIE) is the hypothetical ancestor of languages ranging from English and Latin to Hindi and Russian. No one ever wrote it down, but linguists have reconstructed parts of it by comparing descendant languages and extrapolating backward. If these words are "taboo" in the latter, it's a good bet that they were also taboo in PIE. Many reconstructed PIE roots cluster around concepts that still remain insult-heavy today: animals, stupidity, filth, moral failure, and biological functions.

Additionally, Mesopotamia gives us humanity's earliest written records. Sumerian and Akkadian tablets include insults preserved in legal disputes, school exercises, and proverb collections. Students copied them out as handwriting practice, which suggests that learning to read and write also meant learning how to talk trash properly.

Some particularly interesting Sumerian insults include *uzuh* ("unclean person"), *igibala* ("traitor"), and *shabarra* ("bastard"). Many insults also refer to a person's bad behaviour, like *nibulung* ("pompous"), *ninggu* ("glutton"), *lunamtagga* ("sinner"), *agaashgi* ("most awkward person") and—a personal favourite—*sangdu nutuku*, which literally translates to "(one) not having a head," but has a conceptual meaning closest to the English word "idiot."

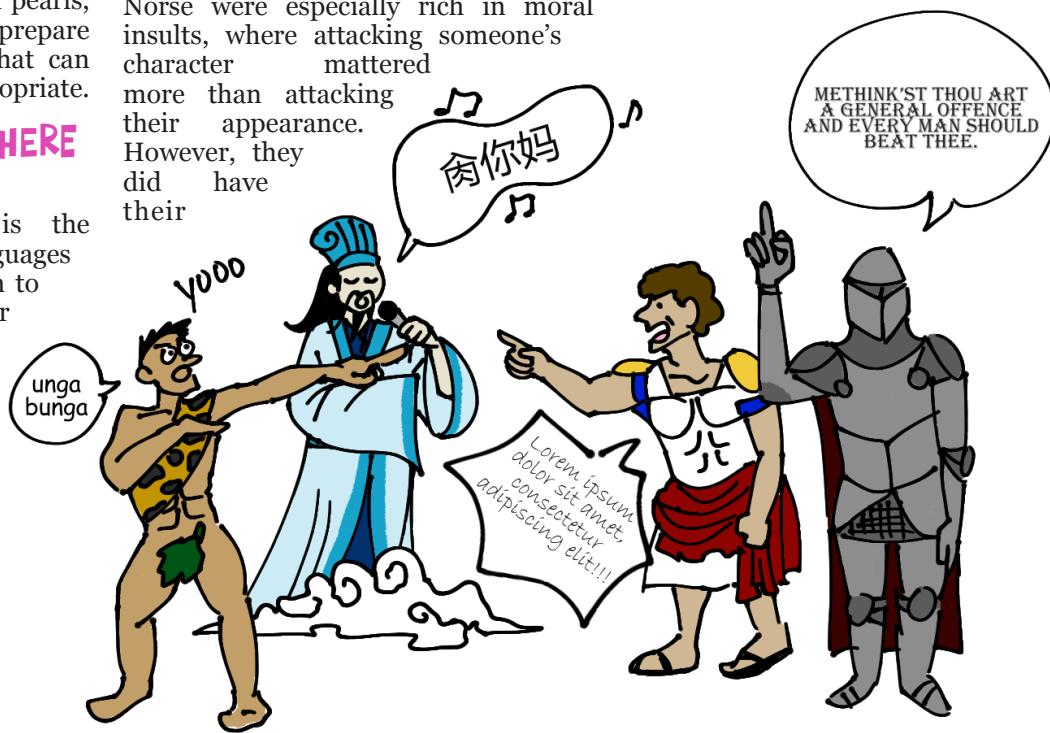
As we move forward into early Germanic languages, which are the ancestors of English, German, and the Scandinavian tongues, the insults become more honour-focused. Old English and Old Norse were especially rich in moral insults, where attacking someone's character mattered more than attacking their appearance. However, they did have their

colourful phrases, and were particularly fond of including trolls, like *megi tröllin taka pig!* ("may trolls take you!") or, as translated and paraphrased from Njall's Saga, "you are the sweetheart of the troll at Svinafell, he uses you as a woman every ninth night!"

INSULTS AS PERFORMANCE ART

The ancient Greeks believed deeply in public debate and theatre, which meant insults were often metaphor-heavy and eloquent. Greek comedy in particular turned insult into spectacle, where characters hurled baroque abuse at one another, designed to entertain the audience as much as wound the target.

For example, Aristophanes, also known as 'The Father of Comedy,' regularly described political figures as "parasites," "windbags," or "men who contribute nothing but noise." These insults were particularly effective because they accused people of failing their civic duty and could potentially cost them their allies and public reputation.



Additionally, accusations of gluttony, drunkenness, or sexual excess were especially cutting in a culture that prized moderation, because being called uncontrolled was both moral and social criticism.

Similarly, Roman political culture was also competitive, and a person's reputation was everything. For example, in his speeches, Roman orator Cicero never relied on a single insult, instead constructing lengthy narratives explaining why his opponent was morally corrupt, intellectually incompetent, physically repellent, socially illegitimate and, generally, a danger to the Republic. Latin insults also enjoyed the inclusion of animal comparisons and moral metaphors. For example, to describe a dishonest person, they would refer to them as "slippery," "bloated," or "rotting."

GOD IS WATCHING, AND HE'S DISAPPOINTED

Insults in Medieval Europe often involved damnation, heresy, or suggesting someone was spiritually unsound, which was worse than being plain rude, because it implied divine disapproval. In a community that treated morality as a communal responsibility, your behaviour reflected on your family, your village, and your standing before God, which meant insults were also tools of social enforcement.

For example, here are some particularly amusing insults coined by German priest and theologian Martin Luther: "You run against God with the horns of your pride up in the air and thus plunge into the abyss of hell. Woe unto you, Antichrist!", "What happened to you is what must happen when one paints the devil above the door and asks him to be godfather," and "May the Lord Jesus protect me and all devout souls from your contagion and your company!"

THE ORIGINAL YOUR MOM JOKES

Across cultures, the one consistent rule is that if you want to insult someone properly, you involve their family, and parents, and grandparents, and even occasionally unborn descendants: they're all fair game. In many Arabic-speaking cultures, insults involving family are powerful precisely because family honour is central to social identity. Rather than attacking personal

shortcomings, insults often imply a failure of upbringing, values, or lineage.

Likewise, in Mandarin Chinese, family-based insults often reflect Confucian values, where respect for parents and ancestors is foundational. As a result, insulting someone's family or implying shame upon their lineage is profoundly serious. Such insults are based on the logic that individuals are not isolated units, but products of communities. This is also why they are considered particularly offensive and intolerable, often escalating into lifelong feuds and grudges.

SOME INSULTS JUST CAN'T BE TRANSLATED

We of course must briefly discuss what makes some of these insults so funny: the tragedy of translations. While I was conducting research for this article, I discovered an endless supply of creative phrases, but I suspect that no matter how funny I found them, some of the nuance inevitably did not survive the translation, because that is how all languages work. Jokes, especially insults, are built on rhythm, cultural context, and the shared understanding that everyone knows exactly why they're funny. When you read a translated version, you're essentially experiencing a reenactment, not the original performance. One example that I know well is an Urdu phrase that is used when two people are talking, and a third person interrupts them. The saying goes, *do log moot rahe hy beech mei muh dalna zaroori hy?* This can be directly translated as something along the lines of "if two people are peeing, is it necessary to stick your face in the middle?"

Although this is quite comical in English, it holds no comparison to the sheer absurdity that I know it evokes in the original phrase, which honestly is a little sad. And it inspires within me an entirely unreasonable desire to learn every language known to man, past and present, even if it's just to

understand their jokes and insults better, so as to have a more diverse library of insults to choose from.

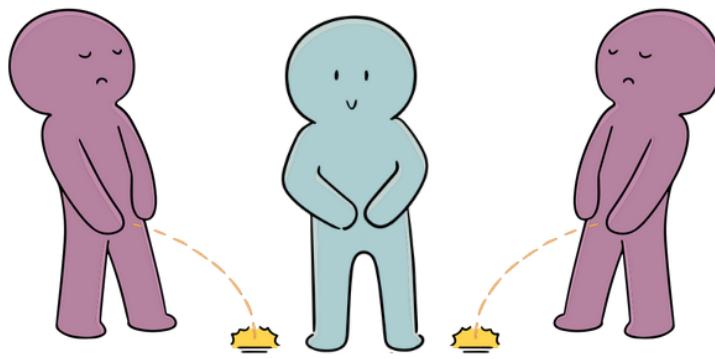
In the spirit of cultural appreciation, here is a compilation of select internationally inspired insults, chosen for their creativity, historical pedigree, and entertainment value.

Chinese: *Ni muqin shi yi ge da wugui.* ("Your mother is a big turtle.")

Yiddish: *Lign in drerd un bakn beygl.* ("May you lie in the ground and bake bagels.")

Bulgarian: *Grozna si kato salata.* ("You are as ugly as salad.")

Gaelic: *Go n-ithe an cat thu, is go n-ithe an diabhal an cat.* ("May the cat eat you, and may the devil then eat the cat.")



Afrikaans: *Ek wens jou vingers verander in vishoeke, en jou balle begin te jeuk.* ("I hope your fingers change into fishing hooks, and you get an itch in your—")

Latin: *Faciem durum cacantis habes.* ("You have the face of a man with severe constipation.")

Turkish: *Sana girsin keman yayi.* ("May the bow of a violin enter your—")

Consider these insults a toolkit for moments when your patience runs low, and eloquence must rise to the occasion. You are encouraged to deploy them recklessly should you ever find yourself in need of a well-crafted expression of disdain, and take comfort in knowing that humanity, across languages and centuries, has already done most of the linguistic heavy lifting for you. ♦

At a Loss for Words

Ishita Jain

Language forms in the babbles of the drunk man who traipses along my street. It flows so effortlessly following the handshake from someone I am here to meet. It exists in the methods of greeting and essay writing and everyday being.

But sometimes, language must be grasped for in the dark. The right words manifest in the waiting, but grow stale with time, disappearing on a train headed North. As I know more about life, I lose my vocabulary. In all the lulls of the day, where imagination should reign, my language is limited by filler words that fail to capture the essence of what could be.

The chatter next door melds into one as a tear traces silently down my cheek. Fury silenced by inarticulation, wasted for there is nobody here to hear me.

Language fails me when I need it most. It purports its importance in speeches and reports and dictionaries, but it forgets the human after the moments of glory. The deeper feelings—those are misrepresented, misinterpreted, challenged and disguised. They are lost amongst the near synonyms, standing bare in the absence of an accompanying instrumental.

Hesitations and stutters. Fears and ignorance. They build the gap between my words. They leave the drunk man ignored, the handshake expecting more. They are a waste of time in a world where time is all they care for.

But those gaps themselves contain language. They house the freight car of thoughts that go unexchanged. Of desires that go estranged. They could hide the notion of the century or bury the fostering of bigotry. The silence is both good and bad; words are both uplifting and demented; language is

the unrelenting sea of expression. But it never is enough to quite describe the blinking of these city lights.

There are words for romanticizing those tragedies that are larger than life. No words, however, for describing the reality of the small moments, those that often drown in mediocrity but still elicit a quiet sadness. Maybe it's a language barrier. But if I turn to the world, they describe the passages of my life in sentiments too grand for me to comprehend:

When I see them, I know the feeling of *koi no yokan*.¹

We were brought together in *yuanfen*.²

In these times of disquiet, *nous nous entraidons*.³

Yet at our pinnacle, I succumb to *onsra*.⁴

My heart screams *fernweh*.⁵

When we realize who we really are, we experience *litost*.⁶

I hate how we end, but *main tujhse naraz nahin hu*.⁷

I am caught in the tension of marvel and simplicity. All of these languages fall short when assimilated into English. Their beauty is anglicized, and hence their beauty is diminished. Those single words are extracted from their unseizable power, those phrases robbed of their rhythm when translated plainly. I could never capture their true meaning, and they could never capture me.

I would imagine that drowning in the wave of translation is akin to control leaking while inebriated. At first it is convenient, a way to escape the bounds of one language or the bounds of a lucid life.



In time, escape becomes the prison. Nobody understands your truth. Attempts to crawl back are met with public and private contempt. You are diminished to an imposter, or defined by the addiction. At some point, none of your past stories matter.

That man through my window, does he, too, feel unable to express his thoughts?

Do you, too, feel like something is missing? Our words are our meaning, the waves upon which we surf and taste the sunlight.

But there are too many to choose from, such that in our pivotal moments, they overwhelm. They suffocate. Times of silence are a bitter reality when caught in the flood.

Language is the deliverance of my soul. But language feels the most real when I am at a loss for words.

I wonder if the drunk man has someone to listen to the longing of his ramblings.♦

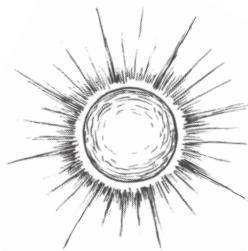
¹ 恋の予感, or *koi no yokan* (Japanese) : knowing you'll fall in love with someone after meeting them for the first time. ² 缘分, or *yuanfen* (Mandarin Chinese) : a fated coincidence that brings people together. ³ *Nous nous entraidons* (French) : we help one another; we are there for each other. ⁴ अनस्रा, or *onsra* (Boro): the bittersweet moment knowing that love will come to an end. ⁵ *Fernweh* (German) : a longing for a distant place; a feeling of homesickness for somewhere one has never been to. ⁶ *Litost* (Czech) : a deep anguish and torment created by a realization of one's own misery. ⁷ तुझसे नाराज़ नहीं जनिदगी, or *main tujhse naraz nahin hu* (Hindi) : I am not angry with you.

Mulberries of the Tongue

Kelly Hong

*I love to pick my words
like mulberries.*

*Each one—
sweet and sun-kissed,
sour and rotten—
is born from the roots
deep within my heart,
tenderly nourished by
my thoughts,
my feelings.*



*Sometimes, in my haste,
I pick and eat the
rotten mulberries,
so plump and tempting
at first sight;
they mimic the sweet.
Yet, I remind myself to be
careful,
for I imagine if I eat too many,
the maggots will quietly
but surely
tunnel through my flesh and bones,
and eventually my heart,
leaving wounds that may
never mend.*



*Ah, but the berries that are sweet!
How rich their flavor,
how full of joy,
when gathered in a little bowl
and offered freely
to any open palm.*

*May every tongue
that tastes them
find their sweetness true.*

Missing Language

Meilly Chen



My memories begin with the sound of silver clinking against glass. A polyester tablecloth is crumpled in my clenched fingers.

"Uoy fo tawh dna?" a steely voice says from a short distance in front of me.

It scrapes at my ears like a blade, sharper than the metallic rhythm I woke up to.

"Gnirod neeb uoy evah woh?"

I feel heat flushing my cheeks as my lips begin to tremble. Even though I've yet to open my eyes at all, I squeeze them more tightly shut while I fall into the support of the fragile wooden chair I'm sitting in.

"Hey," a quieter, more gentle voice whispers to me, accompanied by a small nudge to my elbow. *"Uoy ot gniklat s'ehs."*

I tighten my grip on the tablecloth, feeling each newly formed crease as I wrinkle its too-smooth surface. I need to focus on anything. Anything but what these people are saying to me. I take a deep breath and inhale a mild scent of cooked meat and vegetables. There's... food? I must be dining right now. But why does my mind draw a blank when I try to remember how I got here?

"Em raeh uoy nac? Thgirla uoy era?" the steely voice continues.

"Sorry," I blurt, the word falling out of my mouth without a second of hesitation. A sticky yet warm liquid begins to moisten the tablecloth as I realise my hands are becoming clammy. Across from me escapes a sigh.

"It's okay," the voice relents. *"Won't you*

at least open your eyes?"

Instinctively, my eyes snap open. Bright yellow light from a chandelier pours over a circular dining table with the dishes I faintly smelled. The white tablecloth I've been holding onto looks pristine, without a blemish, on the surface of the table. I sneak a glance at the knotted mess that hides in my lap, out of sight from the people sharing this meal with me.

"Erahs ot tnow t'nod uoy fi yako s'ti. Gnirod er'uoy woh wonk ot tnow tsuj i," a woman says to me from the opposite end of the dinner table.

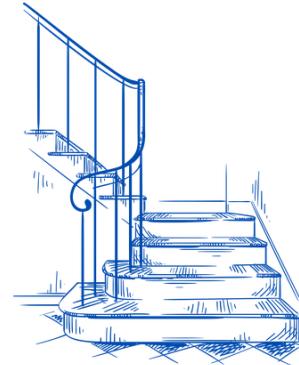
I flinch while trying to make eye contact with her, but I realise that she is the owner of the steely voice I first heard. To my left is a young girl, examining me with a curious gaze. She must be the one who nudged me. I try to formulate a response to what the woman said, but my mind can't wrap around her words. What language is she speaking? It sounds familiar, yet completely foreign.

"Sorry," I blurt again instead. My eyes quiver as they try to find something to focus on.



There's the gleam of cutlery reflecting the chandelier's light. My hands are getting tired. There's the intricate floral

pattern on the rim of our glass plates. My hands are sweaty. There's the nicely assembled dishes of tantalising food laid out on the table. My hands need to let go. I realize that the heavily scrunched up tablecloth woven between my fingers is the only thing out of order in this otherwise perfect setting.



I abruptly get up, releasing the tablecloth and pushing my chair out. *"Sorry. I have to go. Busy with school. Thanks for dinner."*

The sentences rush out of me in a staggered manner, each one a jagged shard of glass that once made up a beautiful vase. I turn around and walk out of the room, towards a staircase illuminated by moonlight dripping through a window. My hands reach for the railing, letting its cool surface relax my heated palms. I tilt my face towards the moon as I slowly walk up the stairs, each step growing heavier and heavier.

"Yletal, rehto hcae htiw klat nac ew woh aedi on evah i. Deneppah s'tahw?" I hear the woman mumble.

"Eromyna emoh emoc ylerab nac uoy taht ysub os eb ot drawkwa tsuj s'ti ebyam," the girl responds.

I don't need to understand their language to know what they're saying. And I don't need my memories to know that they are my family. Otherwise, why would these tears have started streaming down my cheeks? Why would I be feeling so stifled by the words that I once knew, but are now missing?

I quietly arrive at my bedroom and lock the door shut behind me. ♦

True Name

'Nobody'

*The names we're given to call,
a quiet echo through the years,
we answer them, we hear them all,
though they were never truly ours to wear.*

*The names we're called become our signs,
the titles history will keep,
marking red lines, marking green lines
between the words we speak and what we reap.*

*The names we claim, the masks we choose,
the labels etched by our own hand,
can harden us, or make us bruised,
can build a self or bury us in sand.*

*But deeper still, beyond the sound,
a truer name is softly drawn.
It meets us when we're most unbound,
a whispered light before the dawn.*

*It does not shout, it does not plead,
it does not promise easy gain.
It only points where we must lead
ourselves when all else speaks in vain.*



The Wait

Aaron Lin

*Oh my dear, where have you gone,
Without you my stories are ephemeral like dawn.
Your tender embrace aids me no longer,
And every word written saps my wonder.
Where once I wove fate, now I weave rags.
While you are gone, life is but a drag.
As you depart, I watch with tears,
Oh, how cruel of you, to abscond on the eve of celebration,
Leaving me lost, the future filled with fears.
Stories untold, legends yet penned, left unfinished,
And my joys, alongside you, suddenly vanished.*

*When you stood with me, aided me, inspired me,
I wrote wonders and heroes, crafted worlds of mountain and sea,
but most of all, with you at my side, I wrote with pride.
You gave me strength and ignited my passion, my greatest guide.
Not just a phase, not a flash of inspiration, you were my companion,
to hell and back, through thick and thin.
When oceans rose, and empires fell, when life caved in like a canyon,
you gave me the strength to bear it with a grin.*

*Although you are gone now, I know in my heart,
One day you'll return, even greater than before.
Though I know with every union, so too we must always part,
I treasure the time we have together forevermore.*

Puzzles & Games

Welcome back to the Puzzles & Games section of *The Cannon!* To help you on your puzzling journey, hints for the following languages-themed puzzles can be found on the bottom of each page, along with full solutions on the last page!

Good luck & happy puzzling!

Strands

Christina Pizzonia

How it works: Think of this like a word-search, but without the word list! All words within the puzzle relate to the theme, but there's one "special word" that stretches from the left side to the right side of the grid, and more closely links all other words in the puzzle. Words can be made by drawing a continuous line through the letters in any direction (up, down, left, right, diagonal; both forwards and backwards).

For example:

Theme: Hungry?

C	R	R
A	T	O
V	E	G

In this case, the "special word" is "veg" (slang for vegetable) and the remaining word (closely linked to "veg") is "carrot." Notice that all letters within the grid must be used: when the puzzle is complete, there shouldn't be any letters remaining that are not part of a word.

Theme: Feeling Romantic?

I	L	I	N	S	P
T	A	A	C	N	A
L	A	A	T	I	H
P	N	G	A	S	N
O	R	U	A	L	A
T	U	G	G	E	S
S	E	U	A	I	A
E	R	O	M	N	N

Sudoku

Avi Gell

Normal sudoku rules apply: Place the digits 1-6 into the grid such that no digit repeats in any row, column, or 2x3 box.

In addition to the normal sudoku rules, the sum of all numbers inside a cage must equal the value in the top left corner of the cage. However, there's another twist: some numbers in this puzzle have been "lost in translation!" Digits placed in the red circles will now have negative values.

For example:

2	5
---	---

This would be a valid entry, since $(-2) + 5 = 3$, which is the same as the number in the top left corner of the cell.

Best of luck!

		4			0	
	2				6	
5		3				
-5					10	
						1

Strands Hint: Feeling Romantic? What are some romantic languages?

Guess the Song (from the Emoji!)

Joy Zhou

Guess the song titles below based on their lyrics! Each clue contains emojis representing some of the most popular and recognizable lines from the hidden song. The song's year of release and artist have been added to help you on your journey!
For example:

Chappell Roan, 2020:



PINK PONY CLUB

These emojis correspond to the lyric “*God, what have you done? You’re a pink pony girl, and you dance at the club,*” from the hit song “Pink Pony Club” by Chappell Roan, first released in 2020.

Once you're finished, consider giving these songs a listen!

CRYPTIC CLUES

Avi Gell

How it works: The end of the clue is the definition or synonym of the answer you are trying to find, similar to a crossword clue. The start of the clue instructs you to use wordplay to construct the answer—through techniques like anagramming letters or combining different letters together.

For example:

V E R B
____ ____ ____ ____

EXAMPLE: VIEW RIBS ODDLY IN ACTION (4)

The word “oddly” indicates that the solution is made from letters located at the odd indices of the phrase “view ribs.” If these letters are reassembled, they form the word “VERB,” which matches the definition of “in action.” Give these next 4 clues a try!

— — — — — — —
CLUE 1: CHINESE ORANGE? (8)

— — — — — — —
CLUE 2: WITHIN LIFESPAN IS HOW ONE MIGHT HEAR THIS IN COLOMBIA (7)

— — — — — — —
CLUE 3: ALTERNATES DROP LAST PLACE IN RACE, SCRAMBLING TO INTERPRET (9)

— — — — — — —
CLUE 4: HALF-MEASURE OF POLYGLYCEROL WITH A FIFTH OF BITTER-ROOT CREATES ONE
WITH MANY TONGUES (8)

The Mini Crossword

Christina Pizzonia

1	2	3			
4			5	6	
7					
8					
		9			

ACROSS

1. Satellite-based navigation system (3)
4. Language spoken by the Ancient Romans (5)
7. A play with music (5)
8. Spanish appetizers (5)
9. Ionian, Mediterranean, or Caspian, for example (3)

DOWN

1. Poly____: one who speaks several languages (4)
2. “Dad” variant in English, Spanish and Italian, to name a few (4)
3. Walking unit (pl.) (5)
5. Medieval poem *Dies _____*, or “the Day of Wrath” in English (4)
6. American space agency, abbr. (4)

Cryptic Clues Hints: (Clue 1) Look “within” a series of consecutive words // (Clue 2) Both words define the answer // (Clue 3) A letter must first be dropped from a word before scrambling it // (Clue 4) Take sections from words and put them together

Be Part of The Cannon

Each semester, *The Cannon* publishes a themed issue like this one. Email us at cannon@skule.ca if you're interested in contributing or if you have any questions!



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Solutions

1	4	(2)	6	3	(5)
3	6	5	1	4	2
4	2	1	5	6	3
5	(3)	6	4	2	1
(6)	1	3	2	5	4
2	5	4	3	1	6

¹ G	² P	³ S		
⁴ L	A	T	⁵ I	⁶ N
⁷ O	P	E	R	A
⁸ T	A	P	A	S

CRYPTIC CLUES:

MANDARIN
SPANISH
TRANSLATE
POLYGLOT

Theme: Feeling Romantic?

I	L	I	N	S	P
T	A	A	C	N	A
L	A	A	T	I	H
P	N	G	A	S	N
O	R	U	A	L	A
T	U	G	G	E	S
S	E	U	A	I	A
E	R	O	M	N	N

GUESS THE SONG:

VIVA LA VIDA – “I hear Jerusalem bells a-ringin’ / Roman cavalry choirs are singing / Be my mirror, my sword and shield / My missionaries in a foreign field”

BAD ROMANCE – “I want your love and I want your revenge / You and me could write a bad romance”

STRONGER – “What doesn’t kill you makes you stronger / Stand a little taller”

CONFIDENT – “What’s wrong with bein’ confident?”

OLD TOWN ROAD – “I’m gonna take my horse to the old town road / I’m gonna ride ‘til I can’t no more”

AS IT WAS – “In this world, it’s just us / You know it’s not the same as it was”

TOO SWEET – “You’re too sweet for me”

APT – “아파트, 아파트 / 아파트, 아파트 / 아파트, 아파트 / uh, uh-huh, uh-huh / Kissy face, kissy face sent to your phone, but / I’m tryna kiss your lips for real”

MANCHILD – “Man-child / Why you always come a-running to me?”

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