

Dutch is a Must: About Multilingualism and the Anglicization of University
Education

(A story based on facts and fiction).ⁱ

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Multilingualism is a curse, monolingualism a blessing – that is what God appeared to assume when he punished the people of Sinear for building a tower that should prevent them from spreading all over the world, thus defying his will. He judged that with their ingenuity they challenged his greatness and punished them by depriving them of their one and common language. Stonemasons, bricklayers, mule drivers and superintendents could no longer understand each other. They stumbled over piles of cement that hardened in places where they were not meant to be and no longer succeeded in coordinating the work. While previously the mutual relationships had been excellent, the misunderstandings now led to incessant squabbling and scuffle. At long last, the builders lost confidence in the successful outcome of their ambitious project. They stowed away the tools that were scattered around, dragged the crane away from the construction site, and fanned out over the earth, as God had already ordered them doing right after the Flood. And the tower fell into disrepair and became the symbol of how pride will have a fall.

But was it a true punishment that God, at first sight heartlessly, inflicted on the people of Nimrod, or was it perhaps rather a blessing in disguise, an expression of his kindness? And also an expression of his omniscience, because he knew that the linguistic diversity he created there would be beneficial to humanity in the long run. After all, people speaking different languages will sooner or later come into contact with each other and each other's language. Thus, with the curse of multilingualism over there in Babel and the confusion of tongues that ensued, God created the precondition for the emergence of *individual multilingualism*: the use of at least two languages by one and the same person.ⁱⁱ Even though monolingualism in a robust, fully-fledged language – a language in which the ability to express ourselves keeps up with the richness of our realm of thought; in which whatever is thought can be put into words – is a blessed state of being indeed, individual multilingualism is an even more salutary good, one with which ultimately the highest towers can be built. Especially individual multilingualism in which all of the involved languages are highly developed is a valuable asset. But also a combination of one strong language and one or more weaker ones is a precious possession. Most students in our universities are blessed with it. They have Dutch as robust mother tongue, and English as a weaker, but still fairly well developed second language.ⁱⁱⁱ

But definitely less salutary than multilingualism or monolingualism in one strong language is the linguistic state that emerges when external factors force a well-developed mother tongue to be displaced by another, weaker, language. The mother

tongue will then start decaying. Because language proficiency and thinking skills are closely intertwined, God's punishment will be merciless: Part of our ability to express ourselves and part of our thinking capacity will be lost. In the literature on multilingualism, this phenomenon is called *subtractive bilingualism*, bilingualism as a form of subtraction.^{iv} It is to be feared that such a process of language displacement, if it takes place at the university, has adverse consequences for the quality of education.

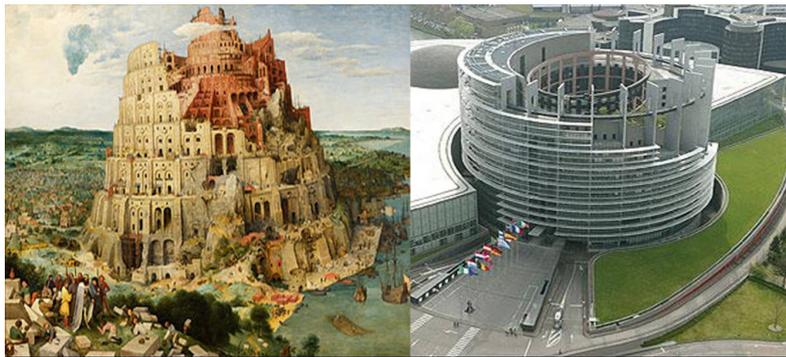
In this essay I will exploit two different images of the Tower of Babel as symbols for two of the possible states a language can be in. To symbolize an eroding mother tongue I use a painting by the German painter Anselm Kiefer on which a crumbling tower can be seen. To symbolize a second language that is weaker than the mother tongue, I use one of the paintings on which Pieter Bruegel de Oude depicted Babel. I chose his Babel in the Kunsthistorisches Museum in Vienna, on which the tower looks more unfinished than on his Babel painting in museum Boymans van Beuningen in Rotterdam. To strengthen the idea of the uncompleted state of Bruegel's tower, you might think of a (hoisting) crane on de construction site. I borrow that image from a group of Euro-sceptics whose exegesis of specific European symbolism reinforces the concern for a gradually declining mother tongue. I will come back to this later.



While we can only guess whether God indeed envisioned the emergence of individual multilingualism when he sowed that confusion of tongues over there in Babel, the authorities of the European Union firmly advocate this form of multilingualism in word and deed. Their policies aim to preserve the 24 official languages and the numerous regional and minority languages spoken in Europe and to ensure that all European citizens acquire practical skills in at least two other languages in addition to their mother tongue. A 2012 report on the language skills of Europeans^v defines practical language proficiency in those other languages as the ability to converse in them and states that the majority of the population in no fewer than eight of the then 27 member states claims meeting that goal. Not a bad score at all, so it seems at first sight. Yet, closer inspection of the figures suggests that the test-takers may amply have overestimated their foreign-language skills, or at least have assumed that for meeting the criterion of conversational ability it suffices to manage a basic conversation on the little everyday things of life. Otherwise, how can it be that a surprisingly large 77 percent of the Dutch respondents – my own countrymen –

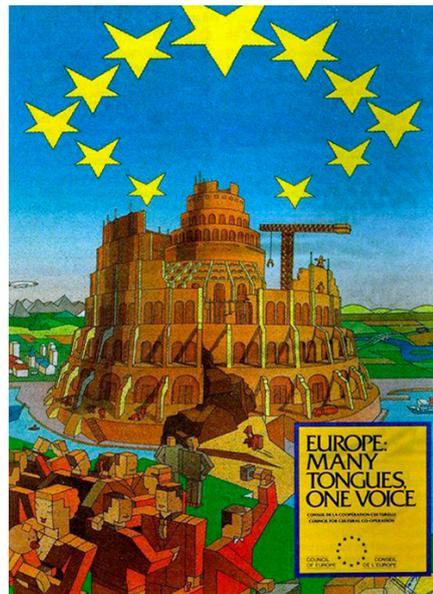
claimed being able to hold a conversation in two foreign languages and that an astonishing 94 percent of them stated they could do so in one foreign language? The fact that those figures are presented without further comment suggests that the European magistrates are already satisfied if residents of different Member States can join for a pint on each other's territory. Another possibility is that the European ambition for its citizens' multilingualism is higher after all, but that, while filling out the questionnaire, many of the Dutch respondents were misled by the time-honored mantra that our language education is by all means excellent.

Be that as it may, the aforementioned Euro-sceptics are not convinced that the European Union is indeed striving for multilingualism among its citizens in a form in which the mother tongue is, and will remain, a robust building, a solid cake with at least some abilities in using other languages as the icing on top. The sceptics base their distrust on the intriguing symbolism with which the European Union visualizes its objectives, a symbolism that hints at an aspiration for dominance of one and the same language throughout Europe, just as in the same symbolism the sceptics also see the striving for a Europe as one super-state with one super-nation.^{vi} What they see as the most striking reference to monolingualism as a hidden item on the agenda of the European leaders is the form of the main tower of the building in Strasbourg that houses the European Parliament. That tower looks remarkably unfinished, as if the flag has never been on the ridge. It takes little imagination to see Bruegel's Viennese Tower of Babel in its shape. And indeed, the design of the 'Louise Weiss building', as it is officially called, is inspired by this painting and aims to visualize the unfinished state of the European project.



This message that project Europe is not quite finished yet should have been buttressed with a poster that was meant to promote the European Parliament but was soon banned instead because of the protest that it provoked everywhere. On the poster we see a structure that unmistakably shows a strong resemblance to Bruegel's Viennese Babel. And that crane in the background can only symbolize that the building activities are still in progress. With such an unambiguous reference to the Tower of Babel under construction, the thought of a Europe resuming Nimrod's building project is involuntarily forced on the viewer. But the thought of a reference to an ultimately monolingual European continent also arises, because the reason that the building

activities had not yet come to a standstill was that everyone still spoke the same language.



And to reinforce their exegesis of this curious symbolism, the Euro-sceptics eagerly point at the five-pointed stars that circle the tower. At first glance these refer to the twelve stars on the European flag, the twelfth hidden behind the highest point of the tower. But those who look more closely will notice that the points are facing downwards, the stars unmistakably resembling inverted pentagrams. And guess what! Since the mid-19th century for many people such pentagrams symbolize evil.

Given the dubious veracity of this enigmatic symbolism, it is advised to judge the European leaders on their actual deeds of fact. And surely, it cannot be denied that the European Union saves no expense to promote language diversity and multilingualism among its citizens. It tries to promote foreign-language learning in all sorts of ways and annually organizes the European Day of Languages. European translation services heroically attempt to continue delivering translations between Europe's official languages, even though the current 24 have increased the number of theoretically possible language combinations to 552. There is a European Federation of National Institutions for Language which unites bodies such as the Nederlandse Taalunie (*Dutch Language Union*) and aims to promote linguistic diversity in Europe. In addition, there are the mobility programs such as Socrates, Leonardo and Erasmus and numerous other activities ensuing from the so-called Bologna Declaration.^{vii} Although all of these organizations and activities are primarily intended to create a European field of education, among other things through student exchanges between Member States, they will also contribute to the participants' knowledge of foreign languages.

But ironically, while linguistic diversity and multilingualism are important goals of all those European programs and activities, it is not inconceivable that some of them will stimulate a development towards monolingualism instead, in particular monolingualism in English, the language of our recently lost son. Even though translation technology has made impressive strides in the last decade, to provide

human expertise that enables translation in both directions between 276 language pairs is a titanic job, also with advanced technological support^{viii}. Some of Europe's institutions have therefore opted for more pragmatic solutions. For example, the Council of Europe actively promotes the official European multilingualism policy, but it itself only works with English and French.^{ix} And it is quite plausible that the European mobility programs for staff and students have given a strong boost to the unbridled anglicization of, especially, university education that is currently taking place. The Dutch universities have the dubious honor of being Europe's front runners in this development. As we speak, already 76 percent of all master degree programs and 29 percent of all bachelor degree programs that they provide are completely and exclusively taught in English.^x But no, not the European leaders are the proud banner-bearers of this process. They just happen to be caught in a Catch 22 between the pursuit of linguistic and cultural diversity on the one hand and the further integration of the Member States on the other hand. Not they, but we ourselves, the Dutch universities, are the heralds of the drastic anglicization of higher education in The Netherlands. We ourselves are Nimrod who has settled on the campus with his encampment.^{xi}



Many people are worried about this excessive anglicization, despite a comforting message from the aforementioned institute, the Dutch Language Union. Last May this institute published a research report on the state of Dutch.^{xii} The newspaper brought the news under the reassuring headline: “we ‘saven’ en ‘appen’ maar [de] Nederlandse taal is sterk, ondanks Engelse invloed” (*We ‘save’ and ‘app’ but [the] Dutch language is strong, despite English influence*).^{xiii} Nevertheless, after reading the report, I was not convinced that the anglicization of university education is not something to be alarmed about. This was partly due to the research method that had been used and the justification thereof. The researchers had not examined linguistic ability by looking at actual speech by native speakers of Dutch. Instead, in a large-scale online survey they had asked Dutch and Flemish people which language they use in all kinds of concrete situations. The underlying idea was that the state of a language can be deduced from the language choices made by its speakers. In this specific case: as long as Dutch is

still predominantly chosen as the language of communication in all social domains in The Netherlands and Flanders, Dutch will be safe and not deteriorate. But the alarm bells should start ringing when the language choices start shifting to other languages. I quote: "Het Nederlands verliest aan vitaliteit wanneer mensen in één of meer maatschappelijke domeinen minder Nederlands en meer andere talen gebruiken" (*The vitality of Dutch suffers when people use less Dutch and more other languages in one or more social domains.*^{xiv} But *that* is exactly what is now happening in the social domain of university education!

Another reason why I did not blindly trust the report's conclusion that Dutch is safe, was because of its stepmotherly treatment of one specific component of the language system, its vocabulary. In the study any influence of foreign languages on Dutch vocabulary had been ignored because such influence is a universal phenomenon and does not affect the structure of a language. The report gives as an example the human-resource manager who talks about "issues met stakeholders tackelen en benchmarks en targets halen" (*to tackle issues with stakeholders and to achieve benchmarks and targets*). Though the ugliness of this sentence may make you shiver, it is grammatically correct and therefore correct Dutch, so it was stated. And indeed, my word processing program never signaled an error when I entered that linguistic atrocity.

But another aspect of a language's vocabulary, its size, is of crucial importance to linguistic functionality. I previously characterized a robust, full-fledged language as a language in which whatever can be thought can be expressed, a language that maximizes the speaker's expressiveness. What such a language needs first and foremost is a large vocabulary, because – though background knowledge, contextual information, gestures, facial expressions, grammar, and prosody all contribute to the meaning of linguistic utterances – words play the leading role in meaning assignment and meaning transfer. Words are carriers of concepts. *Lexical concepts*, that is, concepts that are expressed in a single word, are important building blocks of our thinking, perhaps the most important.^{xv} Therefore, not only our clarity of expression depends on the number of words we know, but also the richness of our realm of thought, our imaginative power, depends on the size of our vocabulary.

This fact, combined with the Orwellian abbreviation *StaatNed*, which pithily refers to the state of Dutch in the aforementioned report of the Dutch Language Union, automatically sucked me into the dystopian world of George Orwell's *Nineteen eighty-four*. I am sure you'll remember: that novel depicts the totalitarian state of Oceania, one of the three intercontinental super-states in which the world was divided after a new world war. Oceania's official language is *Newspeak*, which is to supplant and completely replace *Oldspeak*, Standard English, over a period of 65 years. Oceania's regime designed *Newspeak* with the specific intention of guiding the population's way of thinking towards its ideology, *English Socialism*. At the same time, and no less ominous, *Newspeak* should make all other ways of thinking impossible. The cadence

and structure of that stout abbreviation *StaatNed* are very similar to those of the darkest words in Newspeak's vocabulary: *Ingsoc*, *crimethink*, *thinkpol*, *sexcrime*.



But the memory of Orwell's dystopian world was evoked even more strongly by the way in which Newspeak had to curtail the thoughts of Oceania's inhabitants, namely, by destroying words. I quote from the appendix in which Orwell outlines the basic principles and structure of *Newspeak*: "Newspeak was designed not to extend but to *diminish* the range of thought, and this purpose was indirectly assisted by cutting the choice of words down to a minimum."^{xvi} "Each reduction was a gain, since the smaller the area of choice, the smaller the temptation to take thought."^{xvii} *Newspeak* was designed to promote *duckspeak*, literally the quacking of a duck, but figuratively it means endless chatting. A final quote: "Ultimately it was hoped to make articulate speech issue from the larynx without involving the higher brain centres at all."^{xviii} In other words, *Oldspeak* had to be burned at the stake, its rich vocabulary cut back meticulously, and specific words substituted by others, and all this was intended to turn the people into thoughtless zombies.

Perhaps the most ominous word in *Newspeak's* vocabulary is the word *unperson*. It refers to the state tidying away someone and subsequently erasing all evidence that this person has ever lived.^{xix} Because in *Newspeak* certain parts of speech are interchangeable, *unperson* is also a verb and in that case it refers to the actions that are taken to get the person in question erased. Orwell calls this process *vaporization*. Its meaning is pointedly illustrated in two photographs, one depicting Stalin and three faithful followers.^{xx} In the second photo, an adaptation of the original, we see only two of them. The third, Nicolai Yezhov, had since fallen into disfavor and was subsequently executed. I mention this dark episode in Russian history particularly because *Newspeak* does something similar with words: it 'unwords' *Oldspeak*.



The point to make is this: By anglicizing university education it is *unworded* on an excessively large scale. Certainly not wittingly but on the face of it carelessly, we muzzle students' and teachers' ability to express themselves and pinion their thoughts by depriving them of a large number of words and the corresponding basic building blocks of their thinking, or at least making them less accessible. Instead of being cherished lovingly – we do not call it our 'woordenschat' for no reason^{xxi} – a large part of our Dutch vocabulary is cold-heartedly, as if by a malicious stepmother, directed to a far corner of our mind to gradually fall into oblivion. At the university construction site of knowledge and academic skills, part of the building material is annexed by the foremen. And at the same time, the rest of Dutch, our own *Oldspeak*, is traded in for weaker English, for Bruegel's Viennese Babel. We create a level playing field by imposing a *lingua franca* on the vast majority of our students and teachers, both native and foreign, though this common language is weaker and less complete than everyone's mother tongue. We do not fill the pits and holes by asking students and teachers from abroad to learn Dutch, but dig off the entire field. And in the resulting mud pool all those neglected words drown, and the associated concepts suffocate. Although by all means inventive, this 'de-impoldering' is a form of levelling down that is not going to make anyone happy. And yet it happens.

But how many words are actually robbed away from that building site if the anglicization of university education continues? A rough estimate of that number can be inferred from studies that try to find out how many words, and which ones, a person needs to know for his linguistic skills to suffice for adequate functioning in particular linguistic and cognitive domains.^{xxii} There was a time when foreign students were admitted to a Dutch university based on the results of a *Dutch* language proficiency test. In those forgone days an Amsterdam study found that Dutch freshmen know about 19,000 basic Dutch words at the start of their university training.^{xxiii} Prospective foreign students who had just been admitted on the basis of their results on the entrance test knew about 11,000, so 8,000 (over 40 percent) less than their Dutch speaking peers. Foreign senior students knew about 16,000, so still 3,000 fewer than the first-year native speakers of Dutch. I see no reason whatsoever why the figures would be different for the English vocabulary of comparable native

and second-language speakers of English. This would mean that Dutch students freshly starting in an English-taught program, in the Netherlands or abroad, have to make do with about 40 percent fewer words than if they had opted for a Dutch-taught program.^{xxiv}

And now you may well ask: But aren't they still there, in their mental dictionary, all those Dutch words? Sure, but there is a risk that they gradually will be forgotten because they can no longer be used. After all, using them would lead to communication failures in a learning environment in which not everyone speaks Dutch. Words that are no longer invited to the language festival bashfully crawl in their shell, that remote corner in our memory. In terms of the construction metaphor used before: Just like an ordinary house, language must be constantly maintained to remain sturdy and stable. If the shutters remain closed for even one year, signs of decay already begin to show. Language loss, also of the mother tongue, is a commonplace phenomenon.^{xxv} And it is plausible that with these Dutch words also the associated concepts will gradually weaken, because the English translations of those words are not known. To still be able to express those concepts, the speaker will have to resort to toilsome paraphrases consisting of English words that he *does* know. It is quite conceivable that he often fails to do so because of all the other cognitive processes that take place during speech, many of them demanding attention.^{xxvi}

The central idea behind the present reasoning that there is a close connection between linguistic ability and thinking skills is also propagated by the Dutch Language Union, the same institute that does not yet seem to worry too much about what Dutch is coming to. Precisely because of the close relationship between language and thinking, the advisory body of the Language Union (de Raad voor de Nederlandse Taal en Letteren; *the Council for Dutch Language and Literature*) advocates that higher-education institutions should double their efforts to boost the Dutch language skills of their students.^{xxvii} The Council observes that many students have problems with academic skills such as critical thinking, analysis, and reasoning, and that at the start of their studies, at best, only the worst linguistic deficiencies are eliminated. At the same time, the Council notes that a level of language proficiency that is high enough to start higher-education training may not suffice to ensure optimal professional practice after completion of the study. Language-rich professions such as journalist, politician, and doctor, lawyer and lecturer, priest and pastor, they all require a high level of argumentation, reasoning and persuasion. In order to raise *academic literacy* – as this set of linguistic skills is called – up to standard, the students' Dutch language skills should also be trained during the program. Doing so would benefit the educational quality in all sectors of education, and thus also the language and thinking skills in all sectors of society. In the light of this, in my view, cogent plea for a revival of Dutch language training in higher education, it is particularly remarkable that even many bachelor degree programs are currently exclusively offered in English. If it is indeed the case that some of the Dutch first-year students master Dutch, their native

language, at a level that is too low to successfully complete Dutch-taught bachelor programs, then offering all-English programs entails a real risk that the available linguistic equipment will be insufficient for the *majority* of the students to make full use of their academic potential. An often heard argument for internationalization is to improve educational quality, and anglicizing degree programs is used as a means to achieve that goal. As yet, it seems equally likely that the quality of education will deteriorate rather than improve as a result of anglicization.

Other authoritative bodies, such as the Education Council^{xxviii} and the Royal Dutch Academy of Sciences,^{xxix} have also expressed concerns about the unrestrained anglicization of higher education. In addition, groups of concerned citizens united in het Taalcollectief (*the Language Collective*) and the association BON-Beter Onderwijs Nederland (*Better Education Netherlands*) have become involved in the debate.^{xxx} The threat of loss of expressive skills in Dutch and, consequently, of the loss of eloquence, liveliness, nuance, and depth in education, is mentioned by all these parties as a ponderous argument to recommend that language choices are made cautiously. But other risks and objections are also mentioned, such as the decay of Dutch into a language that is only suitable for everyday use; the alienating of large parts of society from the university; the curious inconsistency between the widely supported wish that everyone with a migration background should have a good command of Dutch as quickly as possible, but that the Dutch of the most highly educated people in society is apparently allowed to erode; and finally, an ever-increasing, one-sided orientation towards, even a subordination to, an Anglo-Saxon monoculture. We want to be cosmopolitans, but we opt for a form of internationalization with which we mentally migrate to Oceania.^{xxxi}

And then I have not even mentioned all those other aspects in which our proficiency in English is no match for our fluency in Dutch. Not only does an unbalanced bilingual typically have a much smaller vocabulary in a second language than in the mother tongue, but also the representations of word form and word meaning of the words that *are* known in the second language are weaker than those of native-language words. The same holds for the memory connections between word form and word meaning. As a result, word recognition and word production take longer in the second language.^{xxxii}

Moreover, the mental load involved in second-language use is relatively high. This shows from studies in which subjects carry out tasks in their mother tongue and in the second language while their brain activity is simultaneously registered. Many of the brain areas specialized in language processing are more strongly activated when using the second language than when using the mother tongue.^{xxxiii} The right hemisphere and certain areas in the prefrontal cerebral cortex that regulate our behavior are also more strongly activated during second-language use.^{xxxiv} These differences in brain activation patterns while using the native language or a second language are attributed to the lower efficiency of language processing in the second language and the increased mental effort resulting from this lower efficiency. It is at least plausible that

this greater mental burden has negative consequences for information processing and knowledge transfer.

But the most striking difference between using a second language or the mother tongue is undoubtedly the almost inevitable speech accent in the second language. Only few nonnative speakers of a language would succeed in breaking through the enemy lines as a spy, because due to their accent they would infallibly be exposed as intruders at the checkpoint. But even in peacetime having a nonnative speech accent can be quite tricky. It is known that an accent negatively affects intelligibility and comprehensibility.^{xxxv} It also slows down information processing in the listener^{xxxvi} and results in the listener remembering less detail of what is being said.^{xxxvii}

All these effects can perhaps still be considered as just minor suffering. It becomes trickier, however, when the credibility of the speaker is at stake, and not because he is really not to be trusted, but only because he has a speech accent. In an English study,^{xxxviii} subjects rated the credibility of trivia statements such as *Ants don't sleep* or *A giraffe can go without water longer than a camel can*, spoken by native speakers without an accent and by second-language speakers with an accent.^{xxxix} Before testing began it was explicitly said that the statements did not reflect the speaker's personal view, but were devised by the researchers. Nevertheless, they were rated as more credible when they were spoken by a native speaker, and the stronger the accent in the second language, the lower the credibility score. Also the utterly reliable white-flag messenger does not get through the enemy lines. The researchers pointed to the harmful consequences of these results for the hundreds of millions of people who use a language other than their mother tongue every day: a speech accent can damage the credibility of applicants, eyewitnesses, reporters, and yes, also of university teachers and students.^{xl}

The newspaper headlined: "Houterig accent? 1-0 achter" (*Wooden accent? 1-0 behind*)^{xli}, but if all those drowned and delayed words, those trapped concepts, and the extra effort it takes to speak and understand a second language are super-added to that speech accent, the score on that scoreboard is well on 5-0 behind. One has to be very desperate about the quality of our education indeed to take all that suffering for granted.

And that's not all yet. By thoroughly ousting Dutch from their programs, we risk weakening the students' bilingualism, and this while individual multilingualism, including *bilingualism*, is such a valuable asset. The most obvious advantage of multilingualism is that it increases the radius of action of the language user, both mentally and physically. Whole worlds are opened up in writing, and with only five strategically chosen languages a multilingual can verbally survive on all continents and in all countries.^{xlii} Another obvious advantage is that multilingual people can translate between the languages they know and thus prevent Babylonian speech confusions.^{xliii}

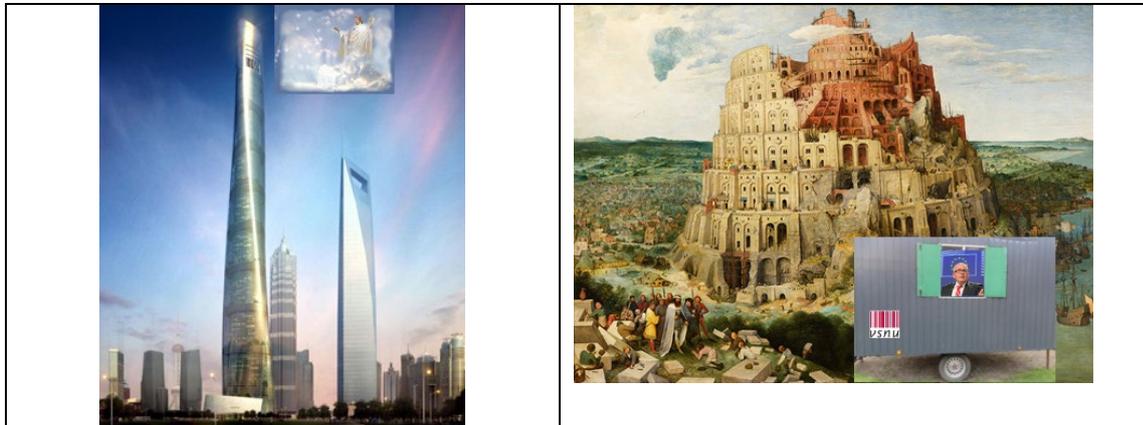
But multilingualism also yields cognitive gain. There are strong indications that certain forms of multilingualism lead to an increased cognitive flexibility and creativity,^{xliv} a better developed ability to form concepts,^{xlv} a sharper focus of attention when performing linguistic and non-linguistic tasks,^{xlvi} and a larger working memory.^{xlvii} Multilinguals also seem to have a more sophisticated metacognition than monolinguals, i.e., they have a better understanding of their own cognitive functioning. There are even indications that multilingualism protects against cognitive decline in aging and that, with an equal degree of brain shrinkage, the first symptoms of dementia occur later in life in multilinguals than in monolinguals.^{xlviii}

Some of these positive effects only occur in multilingual people who use their languages daily, passively and actively, and have done so for a long time.^{xlix} But also the unbalanced bilingualism of most of our students offers cognitive benefits. A major cause of this is linguistic diversity. Languages differ greatly in the way they categorize and encode the external environment, with the result that while learning and using a specific language, attention must always be focused on certain aspects of the environment, namely on what is encoded in the language in question. This leads to the formation of language-specific concepts, and thus to differences in the conceptual world and thought processes of speakers of different languages. *And* it leads to speakers of multiple languages being, in Orwellian terminology, *double-thinkers* or *broad-thinkers*. Their conceptual world is richer and more varied than that of monolinguals, partly because they know more lexical concepts - the aforementioned basic building blocks of our thinking.¹ Compared with multilingual people, monolinguals are *narrow-thinkers*.

Instead of squandering this golden egg, we should polish it in degree programs that cannot do without the use of English. In order for the students in these programs to enjoy more advantages of multilingualism, practical and cognitive, we should strengthen their bilingualism in a fully-fledged bilingual curriculum. In such a curriculum Dutch and English have an equal status, not only in their use, passively and actively, but also in the users' perception. The extensive literature on bilingual education of that kind shows that under these circumstances the mother tongue will not be subject to pressure and that the second language improves substantially.^{li} In addition, there are the cognitive benefits mentioned above. This type of multilingualism is like an addition with an outcome that is greater than the sum of the constituent parts. So Dutch is a must, but certainly not all the time.

Meanwhile God had monitored Nimrod's on-campus operations closely and with mild annoyance. For in those days in Babel it had indeed been his secret intention to advance individual multilingualism on his favorite planet, and this with the utmost

confidence that man would use that achievement for the better. But now that in the Dutch polder a similar monolingual monolith was being erected as millennia before on the plain of Sinear, he had no choice but to intervene and to thus adjust the course of history. That man would subsequently build higher towers than before did not bother him in the least, because with a smarter humanity he would willingly talk, and doing so at the same level would greatly facilitate the conversation.



He chose the metamorphosis that seemed most effective to him, and a fraction of a second later, Nimrod was startled in his site office from his musings by a light breeze that brushed his cheeks. And behold! Suddenly he was sitting face to face with European Commissioner Timmermans, the ultimate personification of the European multilingualism policy and, moreover, a Dutchman.

The visitor was heaven-sent indeed, because he brought a message that matched perfectly with the reflections that had just absorbed Nimrod completely. As a science fiction devotee and a meritorious amateur linguist with a keen interest in the relationship between language and thought, Nimrod had just reread George Orwell's *Nineteen eighty-four*. And he had to admit it: Initially he was tempted by the possibility of using language as a tool for squeezing the thinking of his people into one and the same template in a way that would suit his ambitions.

But fortunately, just in time that other science fiction book, *The languages of Pao* by Jack Vance came to mind. It relates how monolingualism had very nearly brought about the end of the nation. The reason was that the Paonese language did not contain any verbs or comparative constructions like *good*, *better* and *best*. The lack of verbs had left the people lazy and listless, and the lack of comparisons had created a languid culture without conflict and ambition. As a result of these language-induced cultural features of the nation, Pao was easy prey for the inhabitants of neighboring planets. It was therefore only a matter of time before a predatory foreign power would invade and occupy their planet. And so it happened.

To cut a long story short, the hero of this story, Beran Panasper, who had become multilingual in his wanderings through the universe and was keenly aware of the

power of language, introduced a new language that stimulated the reasoning power of the Paonese people and enabled them to view the world from different perspectives. With this broadening of their horizons, an effective strategy to expel the occupying forces was quickly developed and peace was regained.^{lii}

Nimrod knew what was to be done. By betting on just one language, worse still, on a weaker version of the original, he was provoking God to the extreme. He had acted too brashly; a tad reckless even. He sent the stonemasons, bricklayers, mule drivers, and superintendents home, stowed away all tools, and locked the site office. Then he drove to the control center at the Lange Houtstraat in The Hague^{liiii}, where he would revise the design of his language tower, gathered around the drawing board with his best architects. He had deliberately left the crane behind, because one thing he knew for sure: Unlike at that time to Babel, to *this* construction site he would return, because the land was dear to him and the foundation of the tower, the unbalanced bilingualism of most of its inhabitants, was already pretty solid. With a number of carefully considered adjustments the tower would be indestructible.

ⁱ This is a translation of the valedictory lecture that I delivered on September 27th, 2017, on the occasion of my retirement as a professor of Experimental Psycholinguistics at the University of Amsterdam.

ⁱⁱ The term *individual multilingualism* contrasts with *social multilingualism*, the co-existence of two or more languages within a community.

ⁱⁱⁱ When using the term *multilingualism* and in particular *bilingualism*, the general public generally thinks of *simultaneous, balanced* bilinguals, persons who have been exposed to two languages from birth and who have developed equal skills in both languages. Another association with the term is that of a high level of proficiency in both languages, similar to that of native speakers of the languages in question. However, in the study of multilingualism, the term *bilingualism* also refers to persons who have become bilingual only at a later age, who differ in their level of proficiency in the languages they speak (*unbalanced bilinguals*) and who are not fluent in all components of linguistic ability. Among Dutch university students with Dutch as their mother tongue and English as a weaker second language, especially (but not exclusively) speech production in English is less developed than in Dutch

^{iv} The terms *additive bilingualism* and *subtractive bilingualism* were introduced around 1980 by Canadian researcher Wallace Lambert in a number of publications in which he attempted to explain why a 1962 study found a positive effect of bilingualism on non-verbal cognition in children for the first time. Previously, bilingualism was considered to be detrimental to cognitive development. Additive bilingualism arises when the mother tongue and a second language are both highly regarded by society. Under those circumstances, the use of both languages is encouraged, so that the mother tongue is not weakened by neglect. The second language is, as it were, added to the extant linguistic repertoire of the language user. In children, this form of bilingualism is associated with a higher level of cognitive functioning compared to monolingual children. Subtractive bilingualism arises when the use of the mother tongue is discouraged because it has a lesser status than the second language. Learning this new language is accompanied by a loss of proficiency in the mother tongue. It is known that this leads to a reduced cognitive functioning in children, because language can no longer be optimally used as an instrument in thinking. See: Lambert, W. E. (1977). The effects of bilingualism on the individual: Cognitive and sociocultural consequences. In P. A. Hornby (Ed.), *Bilingualism: Psychological, social, and educational implications* (pp. 15-27). New York: Academic Press; Peal, E., & Lambert, W. E. (1962). The relation of bilingualism to intelligence. *Psychological Monographs*, 76, 1-23.

^v European Commission (2012). *Europeans and their languages*. Special Eurobarometer 386.

^{vi} Is Europe the new Babylon?

http://www.albatros.org/english/living/ourtimes/europe_new_babylon.htm. Consulted on March 20, 2017; Why is the EU parliament building modeled after the cursed tower of Babel?

<http://www.nowtheendbegins.com/eu-parliament-building-tower-babel-common/>. Consulted on August 12, 2017.

^{vii} This Declaration was drafted in Bologna in June 1999 by the Ministers of Education of the European Member States. The Declaration lays down agreements aimed at promoting the mobility of students and staff across Europe by, among other things, harmonizing the structure of the bachelor and master degree programs and degree certificates, by accepting passed courses between the institutions, and by encouraging the exchange of students and staff by means of grants.

^{viii} About 2.3 million pages are translated in the European Union every year. In principle, all reports and other documents of the European institutions are translated from the three working languages French, German and English into all 24 official languages. G. Harding, EUobserver opinion: EU: 28 countries, one common language. <https://euobserver.com/opinion/128249>. Consulted on July 31, 2017.

^{ix} Sutton, P. (2006). The place of English in an expanding Europe. *Armenian Folia Anglistika*, 82-89.

^x This translation of my valedictory lecture dates from May 2020. The figures provided in my valedictory lecture, held on September 27th, 2017, were 69 percent and 20 percent all-English master- and bachelor-degree programs, respectively.

^{xi} Thanks to Jan Kraak for adapting “the forbidden poster” and other illustrations in this text.

^{xii} Van der Meulen, M., Van der Gucht, F., & Heeringa, W. (2017). *Aan het werk met de staat van het Nederlands! Over de taalkeuze van Vlamingen en Nederlanders in het bedrijfsleven* (Getting to work with the state of Dutch! About the language choice of Flemish and Dutch people in business). The Dutch Language Union.

^{xiii} NRC, May 8, 2017.

^{xiv} Van der Meulen et al. (2017), p. 4.

^{xv} Non-linguistic forms of thinking, with non-linguistic concepts as ingredients thereof, also exist. This is evident from the fact that babies, non-human primates, and other animal species are also capable of certain forms of thinking. Also the fact that people can come up with new concepts and then name them is an indication that non-linguistic forms of thinking exist. For a number of views on the relationship between language and thought, see: Wolff, Ph., & Holmes, K. J. (2011). Linguistic relativity. *WIREs Cognitive Science*, 2, 253-265.

^{xvi} George Orwell (1949). *Nineteen Eighty-Four*. Penguin editie, 1977, p. 242.

^{xvii} Ibid. p. 249.

^{xviii} Ibid. p. 249.

^{xix} Newspeak. <https://en.wikipedia.org/wiki/Newspeak>. Consulted on June 22, 2017.

^{xx} Nineteen eighty-four. https://en.wikipedia.org/wiki/Nineteen_eighty-four. Consulted on July 20, 2017.

^{xxi} ‘Woordenschat’ translates into ‘word treasure’ in English.

^{xxii} See for example: Cobb, T. (2007). Computing the vocabulary demands of L2 Learning. *Language Learning & Technology*, 11, 38-63; Nation, I. S. P. (2006). How large a vocabulary is needed for

reading and listening? *The Canadian Modern Language Review*, 63, 59-82; Van Zeeland, H., & Schmitt, N. (2013). Lexical coverage in L1 and L2 listening comprehension: The same or different from reading comprehension? *Applied Linguistics*, 34, 457-479.

^{xxiii} Hazenberg, S., & Hulstijn, J. H. (1996). Defining a minimal receptive second-language vocabulary for non-native university students: An empirical investigation. *Applied Linguistics*, 17, 145-163.

^{xxiv} In an English-taught educational environment with predominantly native speakers of English and with English as the dominant language within and outside the university, many of the initially missing words will still be learned. The Amsterdam study shows that too, but for foreign students in a Dutch-language study program. However, in an English-taught educational environment with mainly second-language speakers of English and an external environment in which Dutch is (for the time being) dominant, that learning will be considerably slower or will not take place.

^{xxv} See for example: Higby, E., & Opler, L. (2015). Losing a first language to a second language. In J. Schwieter (Ed.), *The Cambridge handbook of bilingual processing* (pp. 646-664). Cambridge: University Press; Levy, B. J., McVeigh, N. D., Marful, A., & Anderson, M. C. (2007). Inhibiting your native language: The role of retrieval-induced forgetting during second-language acquisition. *Psychological Science*, 18, 29-34; Linck, J. A., Kroll, J. F., & Sunderman, G. (2009). Losing access to the native language while immersed in a second language: Evidence for the role of inhibition in second-language learning. *Psychological Science*, 20, 1507-1515. Frequently asked questions in this research area are what factors cause language loss and whether, and under what circumstances, language loss is reversible.

^{xxvi} The problem of a relatively limited power of expression in English is exacerbated by the fact that the knowledge of the English words that *are* known is more incomplete than that of the corresponding Dutch words. They contain fewer nuances of meaning, or only a few of the multiple meanings that words generally have are known.

^{xxvii} Raad voor de Nederlandse Taal en Letteren (*Council for Dutch Language and Literature*) (2015). *Vaart met taalvaardigheid: Nederlands in het hoger onderwijs* (Accelerating language proficiency: Dutch in higher education).

^{xxviii} Onderwijsraad (*Education Council*) (2011). *Weloverwogen gebruik van het Engels in het hoger onderwijs* (A well-considered use of English in higher education).

^{xxix} Koninklijke Nederlandse Academie van Wetenschappen (*Royal Dutch Academy of Sciences*) (2017) *Nederlands en/of Engels? Taalkeuze met beleid in het Nederlands hoger onderwijs* (Dutch and/or English? Policy-informed language choice in Dutch higher education).

^{xxx} *Manifest van het Taalcollectief: Een pleidooi voor een taalrenaissance in het hoger onderwijs van de 21^{ste} eeuw – te beginnen met het Nederlands* (Manifesto of the Language collective: A plea for a language renaissance in higher education of the 21st century – starting with Dutch). July 2015.

^{xxxi} In Orwell's *Nineteen eighty-four*, the United States of America and Great Britain are on the territory of Oceania. Continental Europe is part of the super-state Eurasia.

^{xxxii} See for example: Christoffels, I. K., De Groot, A. M. B., & Kroll, J. F. (2006). Memory and language skills in simultaneous interpreters: The role of expertise and language proficiency. *Journal of Memory and Language*, 54, 324-345; De Groot, A. M. B., Borgwaldt, S., Bos, M., & Van den Eijnden, E. (2002). Lexical decision and word naming in bilinguals: Language effects and task effects. *Journal of Memory and Language*, 47, 91-124; Starreveld, P. A., De Groot, A. M. B., Rossmark, B. M. M., & Van Hell, J. G. (2014). Parallel language activation during word processing in bilinguals: Evidence from word production in sentence context. *Bilingualism: Language and Cognition*, 17, 258-276. The slower word processing in English is not caused by the extremely irregular English spelling, because in a fourth study the response times for one and the same set of *Dutch* words was shorter for native-

speakers of Dutch than for second-language speakers of Dutch: Kaandorp, M. W., De Groot, A. M. B., Festen, J. M., Smits, C., & Goverts, S. T. (2016). The influence of lexical-access ability and vocabulary knowledge on measures of speech recognition in noise. *International Journal of Audiology*, *55*, 157-167.

^{xxxiii} Indefrey, P. (2006). A meta-analysis of hemodynamic studies on first and second language processing: Which suggested differences can we trust and what do they mean? *Language Learning*, *56*, 279-304.

^{xxxiv} Stowe, L. A., Haverkort, M., & Zwarts, F. (2005). Rethinking the neurological basis of language. *Lingua*, *115*, 997-1042; Hernandez, A. E., & Meschyan, G. (2006). Executive function is necessary to enhance lexical processing in a less proficient L2: Evidence from fMRI during picture naming. *Bilingualism: Language and Cognition*, *9*, 177-188.

^{xxxv} See for example: Munro, M. J., & Derwing, T. M. (1994). Evaluations of foreign accent in extemporaneous and read material. *Language testing*, *11*, 253-266; Munro, M. J., & Derwing, T. M. (1995). Processing time, accent, and comprehensibility in the perception of native and foreign-accented speech. *Language and Speech*, *38*, 289-306.

^{xxxvi} Ibid.

^{xxxvii} Lev-Ari, S., & Keysar, B. (2012). Less-detailed representation of non-native language: Why non-native speakers' stories seem more vague. *Discourse Processes*, *49*, 523-538.

^{xxxviii} Lev-Ari, S., & Keysar, B. (2010). Why don't we believe non-native speakers? The influence of accent on credibility. *Journal of Experimental Social Psychology*, *46*, 1093-1096.

^{xxxix} The subjects in this study, that is, the persons who rated the trivia statements on credibility, were native speakers of English, as in almost all studies into the effect of a speech accent on speech processing. Due to the increase in the use of English as a lingua franca, studies are gradually emerging in which both the speakers and listeners in this type of experiment are non-native speakers. For a discussion, see Pickering, L. (2006). Current research on intelligibility in English as a lingua franca. *Annual Review of Applied Linguistics*, *26*, 219-233.

^{xl} For indications that applicants with a speech accent are indeed disadvantaged, see: Hosoda, M., Nguyen, L. T., & Stone-Romero, E. F. (2012). The effect of Hispanic accents on employment decisions. *Journal of Managerial Psychology*, *27*, 347-364.

^{xli} NRC, 28 juli 2015.

^{xlii} The five languages with the largest number of native speakers are Mandarin Chinese, Spanish, English, Arabic, and Hindi, in that order. Together they have about 2.3 billion native speakers and more than 1 billion second-language speakers. Of these languages, English alone has more second-language speakers (about 430 million) than native speakers (about 370 million). Source: <https://www.ethnologue.com/statistics/size>. Consulted on 20 March, 2017.

^{xliii} The author of a book on polyglots, Michael Erard, derived this book's title from this specific skill of multilinguals: *Babel no more* (2012). New York: Free Press.

^{xliv} See for example: Kharkhurin, A. V. (2012). *Multilingualism and creativity*. Bristol, UK: Multilingual Matters.

^{xlv} Peal, E., & Lambert, W. E. (1962). The relation of bilingualism to intelligence. *Psychological Monographs*, *76*, 1-23.

^{xlvi} Emmorey, K., Luk, G., Pyers, J. E., & Bialystok, E. (2008). The source of enhanced cognitive control in bilinguals. *Psychological Science*, *19*, 1201-1206.

^{xlvii} Calvo, N., Ibáñez, A., & García, A. M. (2016). The impact of bilingualism on working memory: A null-effect on the whole may not be so on the parts. *Frontiers in Psychology*, *7*, 1-4. For a discussion of some of these effects of bilingualism, see: Adesope, O. O., Lavin, T., Thompson, T., & Ungerleider, C. (2010). A systematic review and meta-analysis of the cognitive correlates of bilingualism. *Review of Educational Research*, *80*, 207-245.

^{xlviii} Schweizer, T. A., Ware, J., Fischer, C. E., Craik, F. I. M., & Bialystok, E. (2012). Bilingualism as a contributor to cognitive reserve: Evidence from brain atrophy in Alzheimer's disease. *Cortex*, *48*, 991-996.

^{xlix} The more focused attention control and the delay of cognitive decline in aging seem to occur mainly in this group of multilingual people. The presumed cause of these effects is that in communicative situations in which multilingual speakers have to use one particular language they cannot simply "turn off" the other languages. The mental activation of the other language (or languages) must be suppressed in order to prevent the multilingual from inadvertently switching to another language. The brain mechanism that suppresses the other language(s) is not specifically dedicated to language processing but also regulates other behaviors. Because multilingual people who use both of their languages continuously use this mechanism excessively often, they become particularly adept at *executive control*, as regulating our behavior is called in technical jargon. See for instance: Craik, F. I. M., Bialystok, E., & Freedman, M. (2010). Delaying the onset of Alzheimer's disease: Bilingualism as a form of cognitive reserve. *Neurology*, *75*, 1726-1729. For indications that this cognitive benefit of multilingualism occurs selectively, see: De Bruin, A., Treccani, B., & Della Sala, S. (2014). Cognitive advantage in bilingualism: An example of publication bias? *Psychological Science*, DOI: 10.1177 / 0956797614557866; Paap, K. R., & Greenberg, Z. I. (2013). There is no coherent evidence for a bilingual advantage in executive processing. *Cognitive Psychology*, *66*, 232-258.

ⁱ The idea that the language we speak influences the way we think is called *linguistic relativism* and the hypothesis that this causal relationship between language and thought exists is the *Sapir-Whorf hypothesis*. For a kaleidoscopic overview of the different ways in which languages represent the world and the consequences of this linguistic diversity for the cognition of multilingual people, see: V. Cook & B. Bassetti (Eds.) (2011). *Language and bilingual cognition*. New York: Psychology Press. For a discussion of this book, see: De Groot, A. M. B. (2013). About doublespeak and doublethink. *American Journal of Psychology*, 378-384.

ⁱⁱ See for example: De Bot, K. (2014). The effectiveness of early foreign language learning in the Netherlands. *Studies in Second Language Learning and Teaching*, *4*, 409-418; Huibregtse, I. (2001). Effecten en didactiek van tweetalig voortgezet onderwijs in Nederland (*Effects and didactics of bilingual secondary education in the Netherlands*). Unpublished dissertation, Utrecht University; Van de Craen, P., Surmont, J., Ceuleers, E., & Allain, L. (2013). How policies influence multilingual education and the impact of multilingual education on practices. In A.-C. Berthoud, F. Grin., & G. Lüdi (Eds.), *Exploring the dynamics of multilingualism: The Dylan project* (pp. 343-361). John Benjamins.

ⁱⁱⁱ For a more comprehensive discussion of the Sapir-Whorf hypothesis as a source of inspiration for science-fiction authors, see: Brooke, K. (2011). Epilogue: Bilinguals save the world. In V. Cook & B. Bassetti (Eds.), *Language and bilingual cognition*. New York, NY: Psychology Press.

ⁱⁱⁱⁱ This street houses the VSNU-Vereniging van Universiteiten (*Association of Dutch Universities*).