Jan Krejčí, "[Speech to the Congress of Naturalists and Physicians]," *České Noviny* (May 16, 1880)

We have assembled under the common slogan of scientific progress and the culture of humanity stemming from it, imbued with the belief that these slogans, in the turmoil of communal life, in the labyrinth of individual and social conditions, will enable us to stride along the paths and trails that lead to the welfare and glory of the dear country.

From the outset let it thus be vowed most solemnly as our common purpose and resolve that this not be just Platonic love of science under the notorious pretense that science is an end in itself, and not be some kind of false cosmopolitanism that neglects the intellectual endeavors of the nation itself. But in addition to the tireless cultivation of the sciences and *the dissemination of their results throughout our nation*, and in addition to respecting the rights and moral intellectual aspirations of other peoples, *we have in mind the welfare and honor of the Czech nation*. For both true science and true humanism can only operate *in concreto* and not *in abstracto*, both in terms of subject matter and purpose.

Serving homeland and nation faithfully and sincerely means: devoting one's best [individual] efforts to it, yet searching together for the most appropriate ways to validate these efforts. This task was clearly paramount to the venerable fathers of our national awakening at the end of the last century.

In the two-hundred-year struggle for national and intellectual independence, the material strength of the Czechs was exhausted against immensely overwhelming hostile elements. After half a century of gloomy tension the indestructible power of the Czech spirit then began to reappear in the renewed love of the mother tongue among individuals, the first awakened sons of the poor homeland, and it immediately recognized their discernment that it is not in the renewal of the old orders from before White Mountain, but in the implementation of modern ideas that the awakening of the hitherto dormant nation can be achieved.

At that time the words of the defenders of the third estate reverberated powerfully at the gates of parliaments, hitherto accessible only to the privileged classes of nations; in England, America, and France, the previously unheard-of echo of natural rights common to all the people, together spread however the unprecedented light of culture, and from the multitudinous sides of the magnificently growing nature research [i.e., *Naturforschung* in German] its rays shone forth into all the dark corners of communal life—it was the era of Washington and Franklin, Mirabeau and Lavoisier. Since that time the floodgates of progress in the material and intellectual movement of European nations have been removed, and two currents, the current of political changes and the current of scientific inventions, have since been animating the phenomena of their public life—with a quieter and deeper great river gradually emanating new channels and new directions of the general education of nations.

It cannot be denied that, compared to the wondrous advances in the natural sciences and their practical application, all the systems of governments and the whole social and moral structure of the most advanced nations remain far behind, and that often the old barbaric views of the state and its intellectual needs gain the upper hand over the philanthropic aims of science.

Yet despite this the reactionary countercurrent cannot resist the natural scientific views triumphantly making their way forward, but progress is not only dependent on the efforts of

enlightened citizens, it is also connected with the material gain of all classes of people, and not only the welfare but also the material existence of nations depend on it. The most superficial survey of the condition of Europe, says Humboldt, teaches every thinker that when there is an unequal contest or when there is a more sustained delay in the progress of natural science, national wealth must necessarily start to diminish and finally completely disappear.

Science and art must already be regarded as substantial parts of the national wealth, and they are often a compensation for material goods that nature has granted in more modest measure. A nation that lags behind in natural science and industry, a nation whose esteem is not channeled toward such fruitful activity, must inevitably decline steeply in general education, in its wealth and welfare, and all the faster if science and industry in neighboring nations are continually rejuvenating with new forces.

Needless to say, the predilection for nature research and industry could prevent the cultivation of activity in the field of law, history, and philosophy, or not permit the flight of sublime imagination in aesthetic works whose ornamentation and charm only gives further the refined character to the works of the nation whose intellectual education is elevated above mere material ostentation. Father [Jan Evangelista] Purkyně [founding figure of modern Czech science], when patriotic youths drew close to him, motivated them with spirited words in favor of all-round education: The human spirit is a translucent gem, the more beautiful and glittering, the more facets it has; the most brilliant, however, truly shines if it has the gold-plated substrate of nature research.

These kinds of ideas about modern distinctions for educating our newly-awakened nation dominated the thought of our revivalist fathers. Besides the motivational task, however, they were also confronted with the harder task of defending against the baser egoism of domestic renegadism and against the niggardly coarseness of foreign-born restoration importuning on our patriotic little band under the banner of ersatz culture.

And do you know how this little band triumphantly resisted these attacks? It was these two slogans of marvelous power that gave it the irresistible powers that gradually joined it to all the countrymen of the most high-minded thought, so that they grew quickly into a mighty host: love for the common people and the idea of true civic freedom.

Diverting the efforts of higher education into a foreign-language channel inaccessible to the common people would amount to condemning the people to eternal intellectual and material helotry. Our revivalists have never separated their efforts from the cause of the people, however, and thus do we stay true to them in proclaiming that there is nothing further from us than creating a privileged educated caste. If enlightenment is the sole condition for our national existence, then education must penetrate more deeply into the entire nation, the less that it appears to be about the number of post offices in comparison with other civilized nations. Other less populous nations like the Dutch, Danish, and Swedish are an example, when it comes to ancient origins of culture we do not stand behind them, and a still greater motive of our modern awakening, however, is the inducement and support for proceeding resolutely down the path set out by the fathers.

There were no magnates like among the Poles and Hungarians, the elders [i.e., predecessors] who raised the banner of national education at the dawn of the new era; there were no palaces in which the works of Jungmann, Presl, and Tyl found readers, but the cottages of our

villages and the houses of our small towns; they were and still are second-born sons of farmsteads and small trades from which came the patriotism of priests, lawyers, physicians, and teachers, people who wrote literature and poetry and inquired about our common people and in their name.

If the great landowners then, apart from debatable exceptions, or the citizens who have grown wealthy, or part of the bureaucracy consider alienating themselves from the nation they came from and among whom they live, the nation that ennobles their claim to higher statuses [in the sense of dignitas]; yet if until recently every patriot, once he demonstrated his love for the people too eagerly or loudly through his mother tongue, was being excluded from participation in higher statuses, from public honor, even from all sources of welfare, by the influence of these classes: it does not change anything in the judgment of the enlightener and philanthropist that the motive for the behavior is nothing other than vulgar selfishness, but love for the nation is the primary phenomenon of true world-citizenship that is the ideal of all the most exalted spirits of modern education.

Elevating national self-esteem on the basis of intellectual work and the validity of the natural rights of a suppressed nationality is not only a requirement of humanity, but a requirement of an offended universal right and of civic freedom. No nationalization showed itself to be a cultural deed, but each was merely an act of the violent right [pěstní právo] to brutally vanquish, it was the exploitation of the weaker by the stronger for the purpose of material gain. Thus it was in the old days under the pretext of Christian Enlightenment, so it is even in modern times under the pretext of bearing culture to the east, [------] recently due to the general confinement of nations.

Against this oppressive current emanating from the great neighboring empire, which arrays the nations into vast armies for mutual oppression, in whose brutal clashes the permanent results of education are destroyed, and whose upkeep absorbs all the fruits of the productive labor of educated humanity, the only protection is the cultivation of international moral law, which counters with the preservation and enhancement of all indigenous national groups, defending them from inundation by a leveling, monolingual, modern absolutism of the most privileged tribes.

Nature itself is free to develop multilateral diversity; only a desert is uniform and dull, and the freer nature is, the more diversely and exuberantly it develops. What good air, heat, and moisture are for plants and animals, the morality of international codes and freedom are for the life of nations.

It would therefore be completely wrong to assume that nations and states do not have the same rules of justice and honesty, tolerance and patience, as in the lives of individuals, but that violence and guile, cruelty and ruthlessness can culminate in state wisdom, if they but lead to the desired aim. For just as immorality poisons the mind of individuals and inevitably excludes them from civil society in the end, so does immorality in the principles governing whole nations lead these inevitably to perdition, gradually undermining the center of gravity of their respective values and the condition of international legitimacy, which cannot depend on anything other than concurrence toward the ultimate peace and harmony of all nations for the purpose of achieving their ultimate goals of intellectual and material wellbeing.

The concern that nations, if each of them were to proceed along its own paths to higher levels of culture and enlightenment, would thereby always branch away and become more distant

from one another, is a faint and irrelevant one. The purpose of all human culture is not always to discover and use one and the same path, but to achieve the ultimate goal of enlightenment and welfare.

Beyond this trade and industry mediate, art and science bring nations into contact, so that any kind of isolation of any nation that wants to associate with enlightened nations cannot even be conceived, unless blinded by foolish self-esteem it wants to confine itself, to its own greatest detriment, within some Chinese wall.

Modern science [scholarship] is in fact natural [science], and with its supreme creations it turns the intellectual [spiritual] realm completely independent, free, and altruistic, limited neither by the divisions of nationality and faith, nor by the prejudices of sex and estate, nor by the circumstances of wealth and age; to everyone who wants to benefit from it, it opens its wealth while being inexhaustible. Delivering its gifts to all mankind, science willingly grants their use everywhere for domestic needs and peculiarities; still giving away yet still getting richer while it collects a double reward everywhere, and so what a beneficent messenger committed to honor and gratitude nation to nation, science prepares everywhere the common ground of consensus, peace, and human friendship.

. . . .

In days long past the participation of Czechs in the cultivation of the natural sciences was one of the most valid testimonies of their calling to higher education, and even now it is a guarantee and proof before the educated world that we their followers and sons also clearly have in view the common aim of all educated mankind, embarking again on the path of independent nature research [i.e., Naturforschung].

So it will not be considered extravagant boasting if I single out some features of Czech participation in the cultivation of the natural sciences, in particular by laying out our efforts and our work in this field in recent years, because I am confident of the salutes even of the most distant apostles of progress to whom chance proclaims this speech of ours, confident that the verdicts they reach about our works will joyfully welcome this unexpected addition to the treasury of human scholarship, from the region and from the nation, thought to have totally died away from the efforts and abilities of the new global scholarship. (This is followed by a detailed account of the activities of Czech scholars in the past and present in the fields of medicine, mathematics, astronomy, and natural sciences.) [I.e., not included in the condensed newspaper version.]

Czech nature researchers can exclaim to the state administration just as Archimedes did to the tyrant Ilieron: "Give me a lever and a place to stand and I will raise the earth"; *Give me only higher scientific institutes, and you will see to what level I will raise natural science in Bohemia!* Like all of you I could not be further from the smug illusion that our current results could be compared to or replace the magnificent results of English, French, German, and Italian work in this field.

[Learning from German science we need to recognize that cultivating science also means cultivating our native language.]

. . . .

Natural science with its contemplative character searches everywhere for causes and their connections, it dispels the specters of superstitious imagery under whose dominion nations have shuddered in terror for thousands of years: mankind will awaken as from a terrible dream and see a world full of charms and beauty, full of unknown and unutilized powers, but also full of its own legitimacy, which must not be violated without punishment.

. . . .