

Vaccination and the Humanism of Andres Bello

Andres Bello (1781-1865) was a scholar, poet, and diplomat. He is perhaps best known for his work promoting the American Spanish language as an equal alternative to Castilian Spanish. But he did a lot of other things. Born in what is now Venezuela, he attended university there and was recognized early for intellectual abilities. He was in demand as a tutor. One of his students was Simon Bolivar. As a young man, he translated Virgil and Voltaire into Spanish. When Venezuela revolted against Spanish rule in 1809, he and Bolivar travelled to Britain to seek British assistance for the revolution. After 19 years in Britain, he was hired by the government of Chile to set up a new university, which he led for many years. During this time he wrote the Chilean civil law code and campaigned for Spanish American cultural independence from Spain, publishing a famous grammar book. Today major universities in Chile and Venezuela are named for him. Both countries have put his picture on their currency. But here we are interested in a particular poem he wrote in 1804, *Oda a la Vacuna*, Ode to Vaccination.



Andres Bello

For thousands of years smallpox had killed millions of people in Europe, Africa and Asia. Introduced into the Americas by Europeans after 1492, smallpox killed a large percentage of the native American population. In 1798 the English physician Edward Jenner published a booklet describing how infection with cowpox, a mild disease, conferred lifetime immunity to smallpox, a process called “vaccination” from the Latin word “vacca” meaning “cow”.

In 1803, the Spanish king, Charles IV, responded to Jenner’s discovery by organizing an expedition, the Royal Philanthropic Vaccine Expedition, to vaccinate people throughout the



Goya painting of Charles IV and family

Spanish empire. This was quite a project because there was no way to store the vaccine. The only way to vaccinate people was with live cowpox virus taken from an infected person who had been vaccinated about 10 days earlier. So to carry live virus across oceans required a group of people previously unexposed to smallpox, meaning children, who could be vaccinated in sequence during the voyage. The leader of the expedition was the king's personal physician, Francisco de Balmis. The children to be vaccinated were orphans accompanied by the rectress of their orphanage, the nurse Isabel Zendal.



Isabel Zendal

Francisco de Balmis

The first stop in the New World was Caracas, where Bello lived. Bello wrote his poem to celebrate the expedition. Bello wrote in a “neoclassical” style, imitating his hero, the Roman poet, Virgil. Bello clearly wanted to say that the expedition to vaccinate the Spanish empire was as heroic and exciting as the Trojan war, just far more constructive. Bello was well aware that Charles IV was generally considered a mediocre king. He is mostly known today because he was painted by his court painter Francisco Goya. In 1804, Spain and the rest of Europe was engaged in the Napoleonic Wars, which the humanist Bello thought were horribly wasteful. In the poem Bello first recounts how horrible it was that Europeans introduced smallpox into the Americas.

(Note: no English translation has been published. We are using GoogleTranslate. The meaning and extravagant tone come through, even if the beauty of the poetry is lost.)

Bello: That fierce scourge, that horrible
exterminating plague which, transmitted from the heart
of burning Ethiopia,
disturbed the European borders,
brought weeping
and desolation to the new colonies; in a short time,
everything was damaged and corrupted; an impure gas

infected the very region from the air;
breathing could no longer be done with impunity;
and this diaphanous fluid in which elements
of health and existence always found
man, beast, bird, and insect,
in whose beneficent bosom the very plant draws
its daily nourishment,
became corrupted, and instead of such gifts,
transmitted deadly poison to us.
Suddenly, human bodies were marked
with foul-smelling leprosy,
and all the cities and fields
were covered with deformed corpses.

But in 1803 a competent Spanish government rises to the occasion! Bello was obviously not a big fan of Spanish government. Five years later he was working with Bolivar to overthrow it. But for rhetorical purposes, he was praising its positive acts.

Bello: Charles commands; and at once a glorious
expedition spreads throughout his vast
domains the salutary benefits
of that great and fortunate discovery.
He opens the treasures of his treasury;
and stimulated by the high example
of royal piety,
the zeal of patriotic bodies is invigorated.
He chooses illustrious professors
and a wise director, who, to the performance
of such an honorable office, contribute
their efforts, wisdom, and talent.

That is a fair description of what happened. Bello next compares the vaccination expedition to earlier expeditions seeking conquest, making a contrast to the destruction of the conquistadors. Bello describes the accounts of earlier conquests as “sad annals”.

Bello: May these sad annals be forever covered in dust,
where I note
the trophies erected

of barbaric glory
upon human ashes.
Famous expedition, you tarnish,
you bury in gloomy silence
those melancholy feats,
that ambition and splendor suggested;
you, while warrior battalions
leave their steps imprinted in blood,
and rush over devastation and ruin
to crown themselves with a baleful laurel,
you drive away Death from us
at the cost of toil and sleeplessness;

and as a reward for your sorrows you receive
the grateful tears of the people.

With destruction, corpses, and mourning,
the warriors leave their ill-fated mark;

and you, beneath your feet, everywhere,
sow joy and solace.

At your sight, the horrid tombs
close their black jaws; and feeling
your influence, new life springs forth
from the earth with inexhaustible abundance.

Bello celebrates the great happiness that the expedition will bring.

Bello: Agriculture now feels the benefits of new hands,
and transports us to the beautiful
days of the golden age;

this land no longer fears that trade
among its rich gifts will bring
the greatest of European evils;

and to foreign ships, it opens
its ports with eager joy.
They no longer fear, in exchange for their fruits,

the plague being carried to the heart
of their peaceful huts,
nor does the city air frighten them.

Now the loving mother securely
holds her tender offspring to her breast,
without fearing that smallpox will steal
the precious object of her care.

Now beauty enjoys the homage
that love pays her, without fear
that the destructive contagion, tarnishing
her charms, will snatch away her scepter.

Recognizing such lofty displays
of royal kindness, we will transmit our words
of gratitude to posterity in the distant days.

Then, when the old man, burdened by the weight of age, paints for his
grandchildren the terrible scourge of smallpox, and on his wrinkled brow shows
them, indelibly marked, the ravages of such a fierce contagion, they will say:

"Smallpox, whose very name you pronounce with such horror, what has become of
it?"

And he will answer, his cheeks brimming with tears of affection:
"Charles the Benefactor, banished that plague forever from his people."

Yes, Charles the Benefactor! This is the name by which the universe will know
you, the name given to you by Caracas, and the name that one day humanity and
time will recognize.

Aside from Bello's obvious attempt to play up to Charles IV, there is a clear vision
of good government here. A good government will use science to improve the
lives of the people, and will spend money to make it happen.

The details of the expedition are impressive. As shown in the map, after arriving in
Caracas, the expedition divided, sending one group down to Bolivia and Chile
while another, led by Balmis personally, sailed from Acapulco to the Philippines.



It wasn't enough to just deliver the cowpox virus and instructions on how to use it. Balmis and Zendal had to set up permanent organizations to keep the virus alive in each location. It is estimated that the expedition directly vaccinated 150,000 – 300,000 individuals. But more importantly they set up a system that would keep vaccinations going indefinitely. It wasn't always a sure thing. By the time the expedition arrived in Caracas only one child still had active cowpox. The rest had gotten well. They were vaccinated themselves, but had no ability to vaccinate others. But when the ship docked in Caracas, 28 local children were immediately vaccinated, assuring a steady supply going forward.

After bringing vaccination to Manila, Balmis decided to make an excursion to Portuguese owned Macau on the coast of China. People in Macau had heard about cowpox, had none, and naturally wanted access. Balmis himself was sick with dysentery during the voyage from Manila to Macau. As the ship was arriving in Macau, a storm came up. Balmis wrote in a letter:

Balmis: In a few hours the frigate was dismantled [...] and twenty men lost; there was not one amongst us who did not expect to find a watery grave... my efforts centred on preserving the vaccine and begging for mercy from on high... and I alone gave succour to the three children, despite my lack of energy... finally, on the sixteenth, the weather started to calm down and, at the moment, facing the eminent risks of Chinese pirates and thieves who flood these seas, I disembarked in a small boat, carrying the children in my arms, thus, assuring our lives and the precious vaccine.

This was the first introduction of smallpox vaccine to China.

Note: Positivism

Bello's philosophy of vigorous government action based on science is known as "Positivism". It is a philosophy of "government by experts", not exactly democracy. It was very influential in Latin America in the 19th century. When government is led by competent, honest people like Balmis, it works well, sometimes spectacularly well. In practice, often governments are led by corrupt businesspeople claiming the authority of science to push people around.

Bello is always described as a "humanist". He does believe in human improvement through human effort and science, core humanist values. He did not particularly believe in individual freedom, which many consider another core humanist value. Most modern humanists believe in the classic Chinese slogan "Science and Democracy". But sometimes they come in conflict.

Note: Venezuela and Covid

Venezuela had a very aggressive response to the recent Covid epidemic, testing the entire population and isolating contagious individuals. As a result, Venezuela's covid per capita mortality was very low, 207 per million for a total of 5,856 deaths compared to the United States deaths of 3,607 per million for a total of 1,232,181 deaths. This is despite the general disorganization of Venezuelan society. Maybe having a national hero who was so enthusiastic about public health made the difference.