## The moral obligation to be intelligent and knowledgeable, to be productive and to serve, to be proud and humble

Montagnola, Lugano, Switzerland, May 25, 2024 Commencement Address Nuno Crato Dear students, dear hosts and colleagues, dear parents and friends,

It is my great pleasure to be here today, in this very important moment of your lives, and of the life of this great school, to wish you the best in your future – your new future, which now starts.

For me, it's not only a pleasure; it's an honour.

I must thank TASIS Foundation and my friends Lynn and Michael Aeschliman, for the invitation, the headmaster Mr. Nikoloff, Ms. Hope Schlicht, and all that have made this visit possible.

This is an honour I value for many reasons. Let me start by telling you a personal history.

About seven years ago, my wife and I were working in Italy and crossed the border to visit the Hermann Hesse Museum. As we were driving down the hill, coming back to Lugano and heading to Varese, we saw at our right a fantastic campus. Very nice buildings in a lovely environment. We paused and both said: we would like to know that place. How come there is a school here? And what a campus it was! What a campus TASIS has!

Years later, back in Portugal, I received a phone call from someone inviting me for meeting with a group of educators who were setting up a new school in Portugal. Why me?

We met and I found out they were creating TASIS-Portugal, to which board I proudly now belong! Then, I become aware that the fantastic campus I admired years ago in Montagnola was TASIS! But still: why me?

Last year, I was invited to come here and talk to faculty. What a privilege this was! This year, I'm invited again, this time to talk to students. What a privilege!

The funny, unexpected things that happen in one's life!

But let's get back to what's important here today: YOU. Let's talk about you.

How come we are gathered here today to say goodbye to you? How are you saying goodbye to these years, how did it all happen so fast?

It's a mystery of life that never ceases to surprise me. And as you go along with your lives, I'm sure it will surprise you as well. Now, you are getting a taste of this typical old people's talk about how fast time passes. It's only a taste... be prepared... We are in Switzerland – although you are already citizens of the world – and Switzerland is the country of time... of watches, of trains, of punctuality... well, not always...

We are in Switzerland. Three hundred kilometres from here, across the mountains, 120 years ago, one of the great geniuses who ever lived developed his theory about space and time. His name was Albert Einstein, he was educated in this country and started his research in this country as well. He is known by his Theory of Relativity, although his theory has nothing to do with the psychological relativity of time.

Don't be confused. His relativity of time and space is an objective physical concept. Maybe the word "relativity" is misleading...

But a word is just a word. I'm sure you know these famous lines:

What's in a name? That which we call a rose By any other name would smell as sweet.

Shakespeare, of course...

So, forget the name "relativity" and do not believe when people say Einstein was a relativist. He believed in the existence of reality and in the search for truth.

Time seems to fly, but in psychological terms. An artist can describe it better than any physicist. Another quote:

How did it get so late so soon?

Now, these are the words of an American author and poet, known for his many wonderful children's books: Dr Seuss!

How did it get so late so soon?

How? Why? Maybe because so many things happen, so fast... Psychologists have a theory: Mental time seems to fly when many things happen; and time seems to stall when nothing happens.

So... it's very good that time flew and that your years at TASIS seemed short. Many things happened here.

First, you got an education, in all aspects of the word. You learned to respect truth, to practice goodness, to appreciate beauty. And that's no small thing. But these virtues cannot live in a vacuum. You learnt them as you learnt Mathematics, English, Arts, Sciences, Languages... and your education is so complete that you have a moral obligation to people and to the world: the moral obligation to be intelligent, the moral obligation to be productive, the moral obligation to be just, the moral obligation to be humble.

You are better prepared than most people of your age. Much better prepared.

Yes, you are! Don't think this intense work and your intense study didn't prepare you well.

Nowadays, it's fashionable to say that no one is prepared for the jobs of the future. Computers, internet and Artificial Intelligence, so they say, will make current jobs obsolete. We could not prepare anyone with today's tools for the jobs of the future.

Consequently, some people say, what we know today will soon became obsolete, and so it is unnecessary to learn facts; we should rather develop generic skills, such as creativity, critical thinking, and communication abilities – skills that are intrinsic to humans and no machine could do.

All this is apparently modern. All this is seductive. All this seems to make sense. But it doesn't. This is simply a new argument against knowledge, against scholarship. Don't fall for it. You have that responsibility: Do not undermine knowledge.

The more we learn, the more we love knowledge. The more we know, the better we can argue, reason, and be productive. It's not the other way around. Knowledge is never obsolete. Some things may be more useful than others, at different times, but knowledge of the best humanity has created is never a waste.

What's the utility of reading Shakespeare today? Isn't it outdated? But wait: don't you like the lines I've just quoted?

What's in a name? That which we call a rose By any other name would smell as sweet.

Could anyone say it better? In a more profound and more beautiful way? I doubt it.

So, in a way, I'm pleading for the usefulness of apparent useless things. But there is more to it.

We should value things apparently useless such as music, and literature. The immediate practical usage is not a criterion for educating oneself. On the contrary, what seems to be useless human knowledge may become very useful later.

Science is full of examples. We don't need to go far. Let's go back to the gentleman who lived a few hundred kilometres from here in 1905. I'm talking about Albert Einstein. Again.

He devised lasers on paper, without any concern about their realization. He made corrections to Newton's theory of gravitation and later realized that these corrections allowed for the explanation of a decades-old mystery, strange things that happen with the orbit of planet Mercury. And the examples go on, and on... I'm going to tell you my favourite example.

According to Einstein's theory, movement and gravity change time, by a very small amount at our scale, but they do. For many years, astrophysicists tested this theory on a cosmic scale and made good use of it to explain many galactic phenomena. People thought: this is interesting in theory, but not for our daily world.

To give you an idea about the scale of the time slowdown at Earth scale, suppose you are at top of Mont Blanc and one of your friends is in a boat in Lake Lugano. You experience a weaker gravity than your friend, who is closer to the earth's centre. So, your watch should run faster than his. But how much faster?

Well... you would have to wait six thousand years to see a difference of one tenth of a second! Would you care about this difference?

## Would we? Wait!

We regularly use GPS to move around. I used it to come here, as it is incorporated in Google maps in my phone and shows my position with remarkable accuracy. GPS works by measuring the time electromagnetic signals take to travel between a network of satellites and your device. As gravity slightly – very slightly! – changes with your distance to the centre of the Earth, GPS accounts for these relativistic corrections. As time changes for the satellites, as they are moving, this also must be taken into consideration. GPS uses Einstein's equations. It's a very small correction, you think. No, it isn't!

If relativistic corrections were forgotten, according to some calculations, errors in our position could accumulate up to 10 kilometres per day. By now, I might be close to Einstein's home in Bern, while trying to come to Collina d'Oro.

Apparently useless knowledge comes in handy. But there is more to it. What about creativity? Do you need knowledge to be creative?

Let me give you an example from relatively modern technology. You may not remember it as vividly as your professors and I remember it, but there was a time in which luggage with wheels was not common. People had heavy luggage, suitcases and trunks, put them on carts, pulled them up to trains – or had servants carry their luggage. Suddenly, someone had the idea of putting wheels on the suitcases, add handles, and here we go...

Nowadays, people carry easily around small and large suitcases, they slide on wheels. This was a quiet revolution. It all started in 1970, with an idea of an industrialist named Bernard Sadow. But the idea didn't take off. Then, in 1987 a Northwestern pilot called Bob Plath followed suit and introduced retractable handles. By the end of past century suitcases with wheels began to be generalized, and now they are ubiquitous. Too ubiquitous, in fact...

Some people point out that both wheels and suitcases, in one form or another have been around for millennia. So, all it was needed was some creativity, to join the two ideas. How come it took so long to have this creative idea?

The point is that it is not only or foremost a matter of creativity. Even though mass transportation and mass tourism play a factor, by nudging the invention, only in the late twentieth-century was technology ready for modern wheeled luggage.

First, atomic theory, quantum mechanics and modern material sciences developed to make modern wheels, light and durable as never before, and to make modern retractable handles, using aluminium and modern alloys. Just imagine an old-Egyptian-era wooden trunk over stone wheels! Would you like to walk it around and carry it in an airplane? Would it work?

Modern, state-of-the-art technology is all about creativity, for sure, but it stems from knowledge, and very advanced knowledge.

The same happens with other so-called twentieth-century skills. People may tell you that what is important is your ability to communicate well, and not so to know sciences, literature, grammar, or history. But to communicate what? To explain wheeled luggage efficiency, you need to know some statistics; to explain why vaccines work, you need to know something about cells, bacteria, and virus; to be a good tour guide, you need to know some geography and history.

Moreover, to be able to communicate well, you must master the language, master the grammar, master the vocabulary, and be able to put together your thoughts in orderly sentences with appropriate words.

To communicate well is very difficult. The more you read, the more literature you know, the better you master the rules of the language and the techniques of writing, the better you express yourself.

If you think all I'm telling you now are platitudes, guess what: I'm happy with that reaction! These are platitudes for students of TASIS, because you have been brought up to admire knowledge and to admire the beauty of highest human creations. But these are not simple truths to many students and to many educationalists around the world.

After World War II, we saw many triumphs of democracy and truth. After the fall of the Berlin wall, we saw even more victories of the democratic ideals. But, for some reason I still struggle to understand, we started witnessing the spread of postmodern doubts. "Doubts" is not the exact word, as they are not doubts in the search for truth, but are incapacitating doubts, paralysing doubts, without any purpose of progress in knowledge. They are doubts after doubts without any intention to attain better understanding of reality. Understanding itself become questionable for postmodernism. Knowledge itself became questionable for postmodernism.

And when knowledge is questionable, it is natural that the purpose of imparting knowledge, the purpose of spreading the sciences and the creation of human collective imagination is put into question.

This is one of the major reasons why in many countries and schools around the world students don't get a proper education. Fortunately, you are here, in TASIS. And the TASIS motto is Truth to thought and logic, Goodness to action and morals, Beauty to enjoyment and aesthetics. TASIS is inspired by the vision of Mrs Fleming, whom we all admire. And it's now also inspired by a man who has made more than any other one in recent times to encourage knowledge-rich schools.

This man is an American educator, Eric Donald Hirsch, a retired professor at the University of Virginia who has battled against currents of thought that despise knowledge and who criticise the idea that competencies or skills should be a school's guiding principle. In all countries in which a so-called competencies-based education has been promoted, students' knowledge and general preparation have been declining. In countries and schools in which a knowledge-based curriculum is followed, students have progressed, and general education is striving.

What happened in my country is just one more example. When we followed a knowledgebased curriculum we progressed, went above OECD average, passed much more developed countries, and our youth got a great education for life. When this was reversed, we fell abruptly, and our youth lost the equivalent to years of schooling. In other words, when we followed the rich-knowledge approach, we progressed. When we abandoned it, we regressed. Fortunately, we have now hope again.

I knew E.D. Hirsch work in the late 1980s, while I was still working in the U.S. We met first about 20 years ago and we become friends in the fight for a better education for all. It was through this that the TASIS foundation came to hear about me and invited me to be involved in TASIS-Portugal. The rest is history, as people say. And the mystery of my return to Montagnola is explained. Both TASIS Foundation Board members and I support enthusiastically the love for knowledge that E.D. Hirsh so eloquently promotes. Through Hirsch, the Foundation Board members came to know me.

I would never have guessed that the love to Hermann Hesse's novels that brought me to visit Collina d'Oro and that the intellectual friendship with Hirsch would be why I am here today. Happy coincidences... or maybe more...

I wish you many happy coincidences in your life. But don't forget: luck comes from work, and from good work.

Work well. Whatever you do, do it well. Whatever you study, study it to get a durable and deep knowledge, not to just perform a duty. Whatever you say, say it well.

Today is the first day of your new lives. Enjoy it and work for many more happy days like this one. You have the moral obligation to be intelligent, to be knowledgeable, to be productive. The moral obligation to be proud and humble, to be just and to serve, to be happy!