## The considerable impact of culture on life

Culture is a mandatory tool in life, and to understand the impact of traditions - the very word should be defined. Culture is defined as the 'ideas, customs and social behaviour of a particular people or society', with this in mind, we move on to questioning the importance of heritage. To

truly grasp the importance of traditions we have to consider its role in our everyday lives because cultural values affect how we build relationships, interact with one another and can aid our understanding of different lifestyles and perspectives





Participating in cultural events can benefit the individual in many different ways, and can be a source of delight providing an emotionally and intellectually enriching experience and can encourage celebration or contemplation. Understanding customs is also a creative tool in forming your own identity so can be influential in getting to know oneself.

Conventions and customs can also improve the development of valuable skills for the future. For children and youth, participation in heritage-related activities helps to develop thinking skills, build self-esteem, and improve resilience which in turn can improve education outcomes. For example, in the US, schools that integrate arts across the curriculum have shown consistently higher average reading and mathematics scores compared with similar schools that do not.

Creativity and cultural engagement have been shown to improve both mental and physical health. Research demonstrates that the arts can improve the health and well-being of older adults. It can relieve isolation and can help to form your identity.

Culture can be a way of bringing people together and sharing experiences with others and is the glue that holds communities together. Cultural activities such as festivals or fairs create social solidarity and cohesion. It can improve confidence, pride, and tolerance. Additionally, cultural engagement also plays a role in poverty reduction, this shows how the benefits of tradition for individuals can spill over to society as a whole.

Cities owe their development to heritage and tradition. The development of city narratives and diverse cultural heritage can tell the story of our shared past, this creates a unique selling point

for tourists and business investors. Cultural rich areas can also enhance competitiveness by attracting talent and businesses.

Perhaps before we judge other people's way of life - we can look at how much we have in common with them even if their lifestyle may seem different to your own.

When people think of London being multicultural they often focus on what we have lost, assuming that we have lost our true identity. Instead, I urge that we focus on what we gain, we can explore a whole range of societies without actually leaving the country, giving us a wider perspective as we have experienced a wider range of beliefs. When I go to Sri Lanka, a place I am originally from, the fact that I do not speak Tamil (a local language) is often highlighted. They focus on what I have lost but do not consider that I have friends from every continent and eat food from all corners of the world.

I hope this article has shown you that culture is not just a festival or event that takes place every so often, instead, it is how we behave and interact in our everyday lives. Culture is also vitally important for influencing our quality of life for both individuals and communities.

Sarena Yogendran

## Mathematics is a universal language

What language is understood by most people in the world? Mandarin, Spanish, English or Dothraki? Some say that love is the universal language, understood by all. I would like to argue that the language of Mathematics is the most universal of all. If you showed most people in the world the following:

## 1 + 1 =

How many would write down the correct answer<sup>1</sup>? Numbers and symbols that are understood across the world. Even more so if you showed any Mathematician worth their salt the equation below, with no other context I imagine most would come up with the correct solution<sup>2</sup>

$$x^2 - 5x - 36 = 0$$

Regardless of nationality or language Mathematicians understand the operations, the use of unknowns and the numerical representation.

The Italian astronomer, physicist and engineer Galileo Galilei of the late 14<sup>th</sup> century said 'Mathematics is the language in which God has written the universe' perhaps that is why it is understood by so many?

Maths has been understood and used by numerous civilisations throughout history. The ancient Egyptians knew of Pythagoras' theorem or at least that the lengths 3, 4 and 5 can be used to make right angled triangles. Quite handy when you want to build giant pyramids! The Romans created a numbering system that we still see today at the end of TV shows (MMXX), although they never got round to creating a symbol for zero, apparently it meant nothing to them! The numbering system used today was developed in India during the Golden Age of Islam, along with Algebra and Trigonometry.

I could go on listing people who have helped develop the language that we all know today, Descartes, Leibniz, Gauss, Fibonacci, Newton, Cartwright, Lovelace et al. All of whom I'm sure would have agreed that Mathematics is a universal language. If not how would each of them have built on the other's understanding, given their various nationalities and languages spoken.

However, surely language must have grammar and rules? Mathematics is just a way of describing and understanding the world around us. That is a very good point, whilst I consider my response. Why don't you take a quick break and answer the following?

$$5 + 2 \times 10$$

The answer is 25, did you get that? If you did - well done - you used the correct order of operations<sup>3</sup>. If you got 70, well you have fallen foul of the correct way of using Mathematical operations. Just like language, Mathematics has rules. The correct order of operations is just scratching the surface, there are numerous different rules and symbols that we use, modulus signs, differential notation and matrix algebra add to the great tapestry that is the language of Mathematics.

Mathematics, like other languages, can be beautiful. Some people like poetry or prose, for me there is not much more beautiful than the following.

$$e^{i\pi}+1=0$$

The most important digits and symbols are all wonderfully crafted in a true statement of Mathematical elegance<sup>4</sup>!

Mathematics understood universally, with its structure and beauty is truly a universal language. A language that brings the whole world 2gether as  $73 \div 73$ .

<sup>1</sup> the answer to this is 2

<sup>2</sup> in this case x = 9 or x = -4, you need to factorise into two brackets (x + 4)(x - 9) = 0

<sup>3</sup> the correct order of operations is as follows, Brackets, Indices, Division and Multiplication, Addition and Subtraction, often remember using the acronym BIDMAS

<sup>4</sup> <sup>e</sup> being Euler's number approximately 2.72, *i* being  $\sqrt{-1}$  and  $\pi$  being the ratio between the circumference of a circle and its diameter, approximately 3.14