

Reading across cultures

数字中有何奥秘?

我们生活在一个被数字主宰的世界里。的确如此，文艺复兴时期伟大的天文学家和数学家伽利略·伽利雷就指出，“整个宇宙是用数学语言写就的。”不管我们转向哪个领域，数学都提供了解开自然界和人类社会奥秘的钥匙。建筑业、银行业、计算技术、医药业，可以列举的领域无穷无尽。其中，音乐占据了很重要的一个位置。音高、音调以及节奏共同创造出动人的音乐，这背后隐藏着坚实而必然的数学规律。实际上，我们可以说音乐即数学。

这些规律放之四海而皆准，但是不同的国家对数字的理解各不相同。在一份 2006 年发表的研究报告中，日本的经济学家教授西山丰指出，东方文化更喜欢奇数，而在西方，自牛顿以来，人们更喜欢偶数，因为它理性，看起来比奇数更完整。他引用了一句英国谚语“两人的智慧胜过一人”来证明他的理论，而日本也有同样的一句谚语“人多智广”。还有一句英语谚语也说“两人为朋，三人为众”。

不同文化对于“吉利数字”和“不吉利数字”的归类在一定程度上证明了奇偶数的这种差别。比如，在大多数西方国家，13 是个不吉利的数字，而在中国，9 是个幸运数字。所以，在美国你会发现有些旅馆没有 13 号房间，而中国的一些古代宫殿门上会有 9 个一组的门钉。

但是事情并不像这位科学家的研究所得出的结论那样简单。比如，在中国文化中，6 和 8 被认为是吉利的数字，中国有句俗语“好事成双”，这和那句英国谚语有异曲同工之处。我们游历欧洲就会发现并不是在每个国家 13 都是不吉利的数字。在意大利，17 才是不吉利的数字，因为在罗马数字中，17 (XVII) 能被重新组合成罗马墓碑铭文上经常出现的一个词 (VIXI)。所以说，数字中到底有什么奥秘呢？这似乎是仁者见仁、智者见智的事情。

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What's in a number?

1 Read the passage and answer the questions.

1 What did Galileo Galilei say about the universe?

The entire universe is written in the language of mathematics.

2 What have music and architecture got in common?

They are both based upon mathematics.

3 Who is Yutaka Nishiyama?

A Japanese professor of Economics.

4 Why does he believe the West has a preference for even numbers?

He claims even numbers are seen as more “rational” and complete.

5 Why don't some hotels in the US have a room number 13?

The number 13 is deemed unlucky in the US.

6 Why is 17 unlucky in Italy?

Because in Roman numerals the number 17 (XVII) can be rearranged to look like a word found on the inscription of Roman tombstones (VIXI).

2 Work in pairs and answer the questions.

1 Do you know any more Chinese proverbs about numbers?

- Luck will change in ten years.
- Three feet of ice does not result from one day of cold weather.
- It is better to travel ten thousand miles than to read ten thousand books.

2 Which numbers are lucky in China, and why?

The number 8 is lucky as it sounds like the word with the meaning of getting rich. The numbers 6 and 9 are lucky too, because the number 6 means easiness and smoothness and the number 9 means longevity.

3 Which numbers are unlucky, and why?

The number 4 is unlucky because it sounds like the word which means death.

4 What do you know about the history of Chinese mathematics?

According to Confucius, math was one of the Six Arts gentlemen had to learn. *The Nine Chapters on the Mathematical Art* is a very old and important mathematical work. China has always valued the subject of mathematics.

5 How important is mathematics in Chinese universities today? Why?

It is very important, perhaps the most important subject. In fact, you cannot graduate without a good knowledge of mathematics. It is essential for development in all aspects like economics, technology etc.

Additional activity

Ask Ss to make a list of numbers they know to have significance in Western or Eastern cultures.

Some ideas:

- 3 kings: they travel to see the baby Jesus
- 5 senses: vowels in English
- 10 Commandments: 10 rules of behaviour in the Bible
- 11 players: in a football team
- 12 apostles: Jesus' 12 close followers
- 12 days of Christmas: the festive period of Christmas which runs until 6 January when all decorations etc must come down
- sweet 16: when turning 16, girls in the US and Canada will have a sweet 16 party which generally marks a coming of age
- 18 / 21: coming of age
- 40 days of Lent: the 40 days before Easter when some Christians eat less food or stop doing something that they enjoy

Yutaka Nishiyama, *A Study of Odd- and Even-Number Cultures*, Bulletin of Science, Technology & Society, Vol.26, No.6, 479-484, Sage Publications, December 2006

<http://bst.sagepub.com/content/26/6/479.abstract>