

## Leveraging storylistening to improve public reasoning

By WANG YOURAN

In contentious areas such as climate change and artificial intelligence, public reasoning is influenced by the quality of public knowledge. By analyzing the role of stories as narrative evidence in those areas, Sarah Dillon, a professor of literature at the University of Cambridge, and Claire Craig, the provost of Queen's College at the University of Oxford, make the case for leveraging stories in order to improve public reasoning and for reimagining what public humanities mean. Their co-authored book *Storylistening: Narrative Evidence and Public Reasoning* was published by Routledge in February.

### Definitions

"We see an urgent need to reassess the value, power, and importance of stories in light of major recent social and political events, such as the financial crisis, the COVID-19 pandemic, and the Brexit referendum," Craig said. The book *Storylistening* draws together insights about the interactions between stories and human actions to demonstrate how stories can inform public reasoning and decision-making.

"Story" is here defined as a causal account of an occurrence that includes entities with agency, that can be distributed or shared, and in which both form and content generate affect and cognition. Stories can be textual or non-textual.

Narrative evidence is the product of the expert act of both direct critical engagement with stories, and critical engagement with others' storyimbibing. Critical engagement means explicit observation, analysis, and reflection. Storylistening is the theory and practice of gathering narrative evidence to inform decision-making, especially in relation to public reasoning. Narrative evidence is the result of storylistening and part of a pluralistic evidence base.

The definition of public reasoning is taken from the work of Sheila Jasanoff,

who is a professor of science and technology studies at Harvard University. In her book *Science and Public Reason*, she defines public reasoning as the "institutional practices, discourses, techniques, and instruments through which modern governments claim legitimacy in an era of limitless risks—physical, political, and moral."

### Functions of stories

Craig and Dillon focus on four cognitive functions of stories, in particular in relation to systems and collectives rather than individuals. The first function is to provide new points of view to inform the framing of a policy debate and of the systems important to it. For instance, many stories about alien intelligence convey the breadth of ways intelligence may be redefined in the light of new technologies such as machine learning. Some stories explore social engagement with distributed intelligence, rather than superficially fixating on potential humanoid entities.

Through stories' function in the creation of collective identities, storylistening enables new ways to explore what those identities are and what they mean. For example, storylistening illustrates collective characteristics of researchers in a particular field, showing how stories, identities, and research questions intertwine, with implications for the directions of research and technologies as well as the make-up of fields.

The modeling function of stories enables explanation and understanding. On the one hand, stories play a part in the creation and use of non-narrative models. There are storyline approaches to computational modeling of extreme weather events, and stories can act as part of scientific models in areas such as climate change, economics, and epidemiology. On the other hand, stories also function as narrative models in their own right. For instance, the American writer Kim Stanley Robinson envisions in his novel *Aurora* a model

of social and behavioral conditions for a zero-waste world, exploring not just how to balance material cycles but what kinds of governance and skills might be needed.

Stories may be the only way of collectively thinking through the potential behaviors of complex systems in some cases. Stories do not provide scientific knowledge, but narrative evidence enables surrogative reasoning about things about which there is no scientific knowledge. Stories also offer alternative approaches to, and perspectives on, subjects also known through scientific means.

Finally, stories contribute to new forms of anticipation. In the 1990s the American writer Don DeLillo and others anticipated the financial fragility that became manifest in the 21st century. *On the Beach* (1957), an apocalyptic novel written by the British writer Nevil Shute, depicts a chilling scene: a small group of survivors await in the Southern Hemisphere the arrival of deadly radioactive dust spreading towards them from the Northern Hemisphere which has been destroyed by nuclear weapons during the third World War. This novel indirectly helped shape the attitude of the international community towards nuclear weapons in the 1960s, with the Partial Nuclear Test Ban Treaty signed in 1963.

### Benefits and risks

"The aim of the book is to empower people to listen more critically and more carefully to existing stories," Craig noted. The unique benefits of storylistening to public reasoning include finding new ways to reason in important areas where scientific evidence may not be sufficient, such as with respect to complex systems, times or points of extreme disruption, or areas of reasoning concerned with social and cultural matters as well as physical, technical, or engineering systems. In all cases, narrative evidence needs to be created and used in ways which complement scientific evidence and lead to stronger modes of public reasoning.

The risks associated with stories' powerful and persuasive effects, and the potential for them to be misused or to have unruly consequences, already exist. Storylistening is about new ways to manage those risks, enabling better understanding of both truth and untruth. "Some people may be concerned that narrative evidence risks distorting, undermining, or replacing scientific evidence. To avoid this, we are clear that narrative evidence must be part of a plural evidence base," Craig concluded.



Sarah Dillon (Left) and Claire Craig (Right) Photos: PROVIDED TO CSST

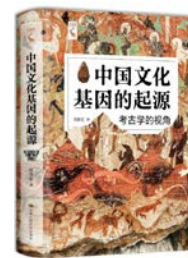
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Geng said that the circulation system is not only a production and sales platform, but also a huge engine that leads production and consumption upgrades. The development of rural industries, especially the integrated development of primary, secondary, and tertiary industries in rural areas, must prioritize the construction of a modern agricultural product circula-

tion system. It is important to accelerate the construction of agricultural product processing centers, cold chain and fresh logistics centers, agricultural product processing and distribution centers, and new marketing centers for agricultural products.

The high-quality development of rural industries is inseparable from the input of modern resources and factors of produc-

tion, such as talent, technology, capital, land, management, and data. Talent, in particular, has become an important resource driving the high-quality development of rural industries. Geng suggested establishing a talent incentive mechanism involving policy support, financial loans, tax incentives, and entrepreneurial funds, to support and encourage talent to return to rural areas.



*The Origins of Chinese Cultural Genes: An Archaeological Perspective*

By Chen Shengqian  
China Renmin University Press  
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## Archaeology decodes Chinese cultural genes

By XU ZIJIN  
and YANG LINXU

*The Origins of Chinese Cultural Genes: An Archaeological Perspective*, written by Chen Shengqian, a professor from the School of History at Renmin University of China, presents an archaeologist's thinking on "Chinese cultural genes," and combines prehistoric archaeological achievements to explore the core of Chinese civilization stretching back for thousands of years.

A cultural gene is a long-standing cultural trait that appears from time to time and determines the identity of a group. It is distilled from structures that have long been stable in a culture. Chen believes that human culture has a similar tendency to the development of biology, that is, it conforms to the assumption of evolution. The idea stems from what British biologist Richard Dawkins called the "dual inheritance theory," or gene-culture coevolution. According to the theory, the source of biological change is gene mutation, recombination, and migration, while that of cultural change is innovation, synthesis, migration, and diffusion, both of which share similar characteristics. However, due to the complex culture system of different levels, culture genes demonstrate the characteristics of fragmentation, neutrality, multi-layer, continuous creation, and continuous transmission. Compared with cultural tradition and cultural traits that are more inclined to structuralist and static concepts, cultural genes can undoubtedly better explain the fundamental attributes, inheritance, and change mechanism of human culture.

The book focuses on the spiritual core of the Chinese cultural gene. At the core of the Chinese cultural spirit is unremitting self-discipline and social commitment with virtue, which leads the long duration of the Chinese nation. The early roots of Chinese cultural genes can be traced at least to the early Neolithic age when agriculture first originated. Chen even concluded that the Chinese cultural gene may have formed earlier. In Paleolithic archaeology, there is a famous "Movius line," along which the kit of chopping tools in East Asia showed a continuous and stable tradition of Paleolithic cultural development, which was quite different from the Acheulean tradition on the western side of the Movius line. Such an assumption makes sense, but still needs further theoretical and material evidence.

In Chen's view, agriculture has greatly changed human society, and the essence of agriculture or food production is control. In contrast to highly mobile hunter-gatherers, food production requires a group of people to cultivate and multiply on a tract of land over a long period of time. This generalization of the nature of agricultural production explains the emergence of new identity representations including social class, birth, and bloodlines. Then came the birth of states and civilizations. Thus the author held that the Chinese civilization system's pattern was established around 10,000 years ago.

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