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## **Will a Character Based Writing System Stop Chinese Becoming a Global Language? A Review and Reconsideration of the Debate**

**Abstract:** Whether China's rise means Chinese becomes a global language like English is a much discussed topic. Most academics and media commentators argue its character based writing system will prevent this because it is difficult and time consuming to learn. In this article I present four counter arguments informed by an analysis of the language practices, language ideologies and language planning surrounding the Chinese writing system and the characteristics of contemporary global English. Firstly, I argue this view is based on the flawed assumption that all learners of Chinese must learn to read and write, and must do so to a native-like level. This does not reflect the global use of English, as not everyone can read and write, and certainly not to a native-like level. People learn as much English as is required for their purposes, and the same would apply if Chinese was a global language. Next, I argue this view ignores the use of devices like computers and mobile phones which convert Pinyin Romanisation into characters, meaning learners need only learn Pinyin and character recognition, saving considerable time and effort. Thirdly, I show there is a historical precedent for the adoption of characters outside of China in the form of the long-standing use of written Chinese for scholarly and official purposes in Korea, Japan and Vietnam. This occurred due to China's status as the most powerful country in the region, if not the world, and demonstrates people will learn and use characters if there is sufficient reason to do so. Finally, I argue this view focuses excessively on linguistic properties. The inconsistencies and irregularities of English's writing system show linguistic properties do not determine whether a language becomes global. I conclude a character based writing system will not, in and of itself, prevent Chinese attaining global language status.

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**Keywords:** Chinese as a global language, Chinese as a second/foreign language, future of English, Chinese characters, language policy and planning

## **1 Introduction**

English is so widespread and frequently used in today's world that it is aptly called a global language. It is the main language of books, newspapers, academic conferences, science, technology, business and medicine, and is increasingly used in sport, popular music, movies and international tourism around the world. It also has official or special status in more than 70 countries across Africa, Asia and the Pacific (Crystal 2003; Melitz 2016). Consequently, English is widely perceived as a means to access knowledge, education, employment, and social status, and the learning and teaching of the language are immensely popular. No other language has ever achieved this status, and English appears well entrenched at the top of the global linguistic order.

However, McKay (2002) argues there are five factors which could reduce the influence of English and perhaps ultimately lead to it losing its global language status: lack of incentive to learn English; replacement by another language in second/foreign language education; improvements in translation technology; lack of resources to support English language education; and resistance to English. The factor most pertinent to this article is the possibility of English being replaced by another language in second/foreign language education around the world. English is the priority second/foreign language in the education systems of a large number of countries because it is a global language, and its teaching in turn produces people able to use English to varying extents. But this situation may not last forever if learning another language is perceived to be more beneficial. Since at least the early 2000s, the world

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has been in the midst of a wave of enthusiasm for learning Chinese<sup>1</sup>, often referred to as 汉语热 (*hànyǔ rè*) or Chinese fever, prompted by China's growing power and influence. There are, according to some estimates, 100 million people studying Chinese (*China Daily* 2017), and it has a growing presence in education systems. To offer a few examples, Chinese will be a compulsory subject in Kenyan primary schools from Grade 4 commencing in the year 2020, and will also be compulsory for two years of senior secondary school in Uganda (Adegoke 2018; Dahir 2019). Chinese is part of the USA's National Flagship Language Initiative, and there is an AP Chinese Language and Culture program (Goh and Lim 2010; Zhou 2011). In Australia, Chinese is one of the priority languages in the National Asian Languages and Studies in Schools Program (NALSSP), the successor to the National Asian Languages and Studies in Australian Schools (NALSAS) plan (Lo Bianco and Slaughter 2016), while the UK's Mandarin Excellence Programme, which aims to produce at least 5,000 students proficient in Chinese by 2020 through intensive language study, covers some 64 schools (IOE Confucius Institute for Schools 2017a, 2017b). Saudi Arabia will add Chinese to the curriculum from school to university level in order to enhance relations with China and achieve the educational goals of its Vision 2030 policy (*Al Arabiya English* 2019). More bilingual Chinese/English schools are opening, including over 200 in the USA, and smaller numbers in the UK and Australia (Kelly 2017; Nicholson 2016).

Such developments have led to speculation that Chinese may be a future global language (see Gil 2011 and Sharma 2018 for reviews of academic and media discussions of this issue). The prevailing view among scholars and commentators is that the character based writing system will prevent Chinese from becoming a global language because it is difficult and time consuming to learn. There are undoubtedly challenges involved in learning and using

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<sup>1</sup> In this article Chinese refers to Mandarin unless otherwise stated.

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characters, and these have been well-documented (see for example Moser 1991). But is a character based writing system really inimical to global language status?

In order to answer this question, I draw on an analysis of the language practices, language ideologies and language planning surrounding the Chinese writing system and the characteristics of contemporary global English. I begin with a brief overview of the Chinese writing system then trace the reasons for its continued use. Following this, I show the view that Chinese cannot become a global language because of its writing system is based on flawed assumptions about proficiency, does not account for the use of technology, ignores a historical precedent for the use of characters beyond China, and focuses too much on linguistic properties.

## **2 Overview of the Chinese writing system**

Gnanadesikan (2009: 2) describes writing as “one of the most important human inventions of all time”. Writing allows information to be recorded and stored in greater quantities and levels of detail than the human memory can manage, and enables information to be communicated over time and across space. Genuine writing systems first appeared around 5,000 years ago. While not the first writing system in human history, Chinese writing is almost certainly one of the few instances of a writing system being invented independently of any outside influences. It first emerged during the Shang dynasty in the form of inscriptions on ox bones and tortoise shells used in divination rituals. These date from around 1200 to 1050 BC, and eventually evolved into the writing system used today. Chinese therefore has the writing system with the longest history of continuous use, having existed in some form for over 3,000 years (Boltz 1996; Chen 1999; Diamond 2005).

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The Chinese writing system is logographic. This means that each unit of the script, or character, represents a morpheme as well as a syllable. In many cases a single morpheme and syllable also constitute a word (Lyovin 1997).<sup>2</sup> There are, however, some exceptions, including disyllabic words like 葡萄 *pútáo* “grape”, and 琵琶 *pípá*, a Chinese musical instrument, as well as some transliterated Chinese expressions in translated Buddhist texts. Characters are composed of lines and dots, known as strokes, written with a single movement of a pen. There are 24 strokes altogether, and characters can range from a single stroke to tens of strokes. All characters are written as though they were surrounded by a square boundary (Gao 2000; Taylor and Taylor 2014).

There are three main groups of characters: pictographs, loan graphs and phonographs. Pictographs are direct representations of objects. Examples include 山 *shān* “mountain”, 田 *tián* “field”, and 口 *kǒu* “mouth”. Loan graphs are characters which are used to represent two or more different words with the same pronunciation. Both “foot” and “sufficient” are pronounced *zú*, for instance, and are written with the same character, 足. Loan graphs came about because at some point in history the character used to write one word was used to write another with the same pronunciation but different meaning (Kane 2006).

Over 80% of characters are phonographs, which means they are composed of two parts, a phonetic determinative which provides some information about how the character is pronounced, and a semantic component, called a radical, which gives information about the character’s meaning (Kane 2006). The character 青 is pronounced *qīng*, and by itself means

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<sup>2</sup> Lyovin (1997) suggests the term morphemographic as a more accurate description of the Chinese writing system and Daniels (1990) suggests logosyllabographic. As neither of these terms have been widely adopted, I have not used them here. DeFrancis (1989) has also argued the Chinese writing system can be regarded as a syllabary, albeit a very complex one. The details of this argument are however beyond the scope of this article.

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“green”. When it is used as a phonetic determinative, different radicals can be added to change its meaning while retaining the same pronunciation (except for changes in tone in some cases). So, for example, adding the radical 日 (*rì* = sun) gives 晴 *qíng*, meaning “sunny”, adding the radical 鱼 (*yú* = fish) gives 鲚 *qīng*, meaning “mackerel” and adding the radical 讠 (*yán* = words) gives 请 *qǐng*, meaning “please”. There are around 200 radicals and several thousand phonetic determinatives which combine in this way, although not every radical can be combined with every phonetic determinative (Gao 2000; Xing 2006).

The helpfulness of the phonetic determinatives is limited in a number of ways. To begin with, it is not always clear which part of a character is the phonetic determinative and which part is the semantic component, as both can appear in any position, including on the left, right, top, bottom, inside or outside of a character, and some parts can function as both phonetic determinatives and semantic components (Taylor and Taylor 2014). Phonetic determinatives do not indicate tone at all, and often give only part of a character’s pronunciation, such as the final sound. Sound changes in the Chinese language over time also mean around a third of them do not reflect current pronunciation, and even when they do, the high number of homophones in Chinese means the same phonetic determinative is used in many different words (Gnanadesikan 2009; Moser 2016). Taylor and Taylor (2014) also point out that some knowledge of characters is required to know the sound of the phonetic determinative, and as such they are not useful for complete beginner learners of the language. The Chinese writing system cannot therefore be described as phonetic in any meaningful sense, making Chinese virtually unique amongst the world’s languages (Chen 1999).

### **3 Sticking to the script: Language practices, ideologies and policies regarding characters in China**

The writing system has been a major focus of language policy in China. Spolsky (2004, 2012, and 2018) identifies three components of language policy: language practices, language beliefs or ideology, and language management<sup>3</sup>. Language practices are patterns of language use such as what language (or variety of a language) is used for what, with whom, where and how. Language beliefs/ideology are the views, opinions and perceptions people hold towards a language (or variety of a language) and the ways in which it is used. Language management is any attempt to change or influence language practices, and may be undertaken by a variety of actors, ranging from governments to individuals (Spolsky, 2004, 2012, and 2018). These components are interconnected because language beliefs/ideology influence how language is used, and language practices contribute to the formation and continuation of beliefs/ideology about language. Attempts to change language practices are also based on views about how language should be used, and influence not just practices themselves but beliefs/ideology as well (Liddicoat 2013). Gottlieb (2012) further points out that different groups within society may hold different language beliefs/ideologies, and these represent competing influences on practices and management. This broad conceptualisation of language policy offers a useful way to understand how the Chinese writing system has been thought of, used and reformed, and why characters have persisted.

For over a century now, there have been tensions in China between viewing characters as a problem and viewing characters as an essential aspect of Chinese culture which cannot be done away with, and these have played out against the backdrop of important political and social events. In pre-modern China, characters, and writing in general, were very highly

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<sup>3</sup> Spolsky uses the term “language management” instead of “language planning”.

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regarded. As Gottlieb and Chen (2001: 6) explain, “script was taken to be sacrosanct by the general public, to the extent that many people would not dare to step on a piece of paper with characters written on it”. For scholars and officials, who gained their positions through mastery of the written language and classic philosophical and literary works, the character based writing system was seen as superior to all others. They certainly knew about, and some even studied, the phonetic scripts used to write Uyghur, Tibetan, Mongolian and Sanskrit, but believed people who used such scripts lacked the sophistication of the Chinese (DeFrancis 1950)<sup>4</sup>.

A drastic reconsideration of the writing system and its role in society was sparked by China’s clashes with Western countries, beginning with the Opium War of 1839-1842. For most of the time since the script was invented, Chinese was written in a traditional literary style of language called 文言 *wényán* (literally meaning “text-based speech”)<sup>5</sup>. It was used for writing about subjects such as history and philosophy, as well as technical writing and most literature, and was also the language of administration. *Wényán* was very different from the spoken language, due to its economy of expression, lack of punctuation and heavy use of literary allusions, and required many years of dedicated study to learn. As most Chinese people lacked the time and resources to do so, the vast majority of the population were unable to read or write, and could only speak their native dialects (Norman 1988; Taylor and Taylor 2014). Reform of the writing system, together with the development of a national standard spoken language, was seen as essential to modernise and develop the country<sup>6</sup>. Scholars and

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<sup>4</sup> A similar view existed among many generations of Korean scholars and officials educated in written Chinese and its associated texts, who believed characters were a superior writing system to the phonetic Hangeul script designed for Korean (Kornicki 2018). I will have more to say about the use and status of Chinese characters outside of China in section 4.3.

<sup>5</sup> I thank the anonymous reviewer for suggesting “text-based speech” as an appropriate literal translation of *wényán*.

<sup>6</sup> The development of a national standard spoken language is discussed in Chen (1999) and Moser (2016).

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officials such as Huang Zunxian and Qiu Tingliang called for *wényán* to be replaced by 白话 *báihuà*, (literally meaning “plain speech”), a vernacular literary language used since the Tang and Song dynasties for popular novels such as *Journey to the West* and *Dream of the Red Chamber*, and lexico-grammatically much closer to the everyday spoken language. This suggestion was applied during the Qing dynasty’s Reform Movement of 1898, and resulted in the use of *báihuà* for a considerable number of newspapers, magazines and textbooks, although some strong opposition remained among sections of the intelligentsia and the literati (Chen 1999).

Efforts to reform the writing system were given extra impetus during the Republican era, when prominent writers and intellectuals such as Hu Shi and Chen Duxiu argued the case for *báihuà*. Some advocates of writing reform went even further, arguing that characters should be replaced with a phonetic script. For those like Qian Xuantong and Fu Sinian, switching to *báihuà* was not enough to make the written language easily accessible and enable widespread literacy and education (Chen 1999; Moser 2016). However, as DeFrancis (1950) points out, such views were in the minority, and the bulk of opinion at the time favoured maintaining characters. The *báihuà* movement was very successful; by 1920, the Ministry of Education had prescribed that all textbooks must be written in *báihuà* and *báihuà* must be taught in the first two years of primary school. *Wényán* was still used to some extent in government documents, business correspondence and some journalism into the 1940s, but *báihuà* had essentially taken over as the vehicle of written Chinese (Chen 1999; Norman 1988).

Attempts to adopt a phonetic script instead of characters, on the other hand, achieved only limited success. A number of phonetic scripts had in fact been developed by Western missionaries from the 16<sup>th</sup> century onwards and by Chinese from the late 19<sup>th</sup> century. Some

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of these enjoyed brief periods of popularity in certain areas of the country and even some official support, most notably 官话字母 (*guānhuà zìmǔ*, Mandarin Phonetic Alphabet), invented by Wang Zhao in 1900 and later revised by Lao Naixuan to cover Wu, Cantonese and Min in addition to Mandarin. Over 60,000 books were published in the Mandarin Phonetic Alphabet on topics ranging from history to zoology, and dozens of schools were established to teach it, usually by wealthy Chinese women who wanted to encourage literacy among women and girls, or provincial officials who saw literacy as necessary for increasing the efficiency and effectiveness of their armies and workforces. However, attempts by its creators to have it endorsed by the national government became mired in bureaucracy, and were unsuccessful (Chen 1999; DeFrancis 1950).

In 1913, the Conference on the Unification of Pronunciation gave serious consideration to the development of a phonetic script, and produced the 注音字母 *zhùyīn zìmǔ*, or Phonetic Alphabet, consisting of 39 symbols based on Chinese characters. It was promulgated by the Ministry of Education in 1918 along with a statement that it was to be used to facilitate the learning of characters, rather than to replace them (Chen 2001). According to Chen (1999), it proved useful in demonstrating and promoting the pronunciation of the national standard language in the ensuing years up until the 1949 revolution. It remains in use in Taiwan today under the name 注音符號 *zhùyīn fúhào* (Moser 2016).

There was also interest in simplifying characters. Scholars submitted a list of more than 2,000 simplified characters based mainly on shorthand versions to the Ministry of Education for its consideration, and in August 1935 the Ministry issued a reduced list of 324 simplified frequently used characters for use in schools and publications. This was withdrawn just six months later due to intense opposition from some government figures, chief among them the

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Minister of Personnel Supervision, Dai Jitao. Dai argued that simplification would result in the loss of China's cultural heritage and separate people from the knowledge and traditions contained in material written in the past (Zhao and Baldauf 2011, 2012).

The Chinese Communist Party (CCP) was interested in script reform even before it came to power, and decided on a policy of using an alphabetic script instead of characters. According to proponents of script reform in the CCP, "Chinese characters were a product of the old feudal society, and had become a tool with which the ruling class oppressed the labouring masses", and were considered "an insurmountable impediment to higher literacy, and so unsuitable for a modern society" (Chen 1999: 186). The CCP had some success with this during its Yan'an period, when it adopted a system called *Latinxua Sin Wenz*, or Latinised New Writing, invented by Chinese immigrants to the Soviet Union in cooperation with Soviet linguists. Its proponents believed each dialect should have its own alphabetic script, and no fewer than 13 versions of Latinised New Writing were developed to cover the major dialects (Chen 1999). Some 300 publications and a pocket dictionary were produced, and it was taught to children (Moser 2016).

Reforming the writing system was considered so important that the Chinese Script Reform Association was established on the same day as the People's Republic of China (PRC), on 1 October 1949. Between 1950 and 1958, more than 1,700 scripts were proposed. However, the CCP changed its policy and instead decided to simplify characters rather than replace them, and develop a phonetic script as an aid for learning characters only. The likely reasons for this are opposition from intellectuals and the literati, more pressing concerns facing the CCP at the time, and Stalin's suggestion to Mao Zedong during his visit to the Soviet Union that

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China should not use the Roman alphabet but a uniquely Chinese script (DeFrancis 2006; Rohsenow 2004).

In 1956 the State Council issued the Scheme of Simplified Chinese Characters, containing simplified versions of 515 characters and 54 radicals. The General List of Simplified Characters appeared in 1964, containing 2,236 characters consisting of all of those in the 1956 scheme and characters which contained its simplified radicals. Simplification was conducted mainly on the principles of adopting shorthand versions of characters already in use among the public, reviving older versions of characters with less complex forms than their modern versions, removing certain parts of characters altogether, replacing parts of characters with simpler parts with the same pronunciation, and where possible, using a single character for a number of words with the same pronunciation (Chen 1999; Ramsey 1987). The main effect of the simplification process was to reduce the number of strokes in characters. According to Zhao and Baldauf (2011), the number of strokes in the simplified characters was reduced from 16 to 10.3 on average.

Further simplification was attempted in 1977. Work on the Second Simplification Scheme commenced during the chaotic years of the Cultural Revolution (1966-1976), and as such was heavily influenced by the radical politics of the time rather than sound linguistic and technical principles. It consisted of around 100 shorthand versions of characters, 853 simplified characters, 61 simplified radicals and 263 characters which were to be replaced by homophones. A trial implementation of 248 of these characters in the media was greeted with resistance and criticism from the public and linguists alike, and was soon abandoned. It was officially repealed at the National Conference on Language and Script Work in 1986. The General List of Simplified Characters was reissued in the same year with only minor changes,

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and some characters were returned to their original form (Rohsenow 2004; Zhao and Baldauf 2011)<sup>7</sup>.

Traditional characters made something of a comeback in the 1980s, spurred by the renewed interest in traditional customs and cultural practices which had been repressed and criticised during the Cultural Revolution, made possible by the easing of political constraints and the opening of society. Traditional characters appeared on shops signs, name cards and reprints of books and other materials written before simplification. Some of the proposed simplified characters from the 1977 list were also taken up by some members of the public (Kane 2006). Most significantly, a group of prominent and politically connected individuals, led by Yuan Xiaoyuan, a returned overseas Chinese woman, went as far as to argue traditional characters should be reintroduced. Zhao (2005) calls this group the Chinese Character Culture Faction (CCCCF) because they believed the traditional characters best represented Chinese culture, possessed aesthetic beauty, encoded and transmitted information better than other scripts and bestowed cognitive advantages. They established an academic journal, *Chinese Character Culture*, and a research institute, the International Chinese Character Research Association, to pursue their agenda (Guo 2004). At roughly the same time, developments in technology raised new issues regarding how characters could be digitised to enable Chinese to be used in computing systems and later cyberspace (Zhao 2010).

There appears to have been some sympathy towards the CCCC position in the government as its emphasis on the uniqueness and superiority of characters was in line with the government's patriotic education campaign to encourage loyalty to China and minimise

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<sup>7</sup> Whether simplification increased literacy remains open to debate. On the one hand, by the year 2010, over 95% of China's population aged 15 and over could read and write (World Bank 2019), which represents a vast increase in literacy since the early 20<sup>th</sup> century. However, Taiwan also has a very high literacy rate of 98.04% (Kuo 2011), but did not undertake simplification.

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Western cultural and ideological influence among the population following the large-scale student protests of the 1980s (Guo 2004; Zhao 2005). Some high ranking government and Party figures attended events held by the International Chinese Character Research Association, and traditional character versions of important official publications such as *People's Daily* and *Outlook* were launched in the mid-1980s, targeted primarily at overseas Chinese populations (Guo 2004).

However, the main thrust of the government's response from this time has been to focus on maintaining the use of officially sanctioned simplified characters and digitising characters. For example, the Language Law of 2001 emphasised the use of standardised characters over unofficial or informal versions, and permitted the use of traditional characters only for historical relics and sites, artistic works, handwritten characters on inscriptions and signs, variant characters in personal names and when required for teaching, research and publications (Rohsenow 2004). Later, in 2009, the List of Standard Common Characters was released with the main aim of setting characters for personal names, place names and scientific and technical terms, particularly for use in computer input systems (Premaratne 2012; Zhao and Baldauf 2012).

As characters were being simplified, a Romanisation system for writing Chinese phonetically, 汉语拼音 *hànyǔ pīnyīn*, literally meaning "Chinese spelled sounds", was also developed. Commonly referred to simply as Pinyin, this system consists of symbols from the Roman alphabet and is based on the Beijing dialect of Mandarin. Its intended purpose is to facilitate learning of characters for all Chinese speakers and the learning of the pronunciation of Modern Standard Chinese for speakers of non-Mandarin dialects. It has been used in the PRC since 1958, and is also the main Romanisation scheme used internationally, having been

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accepted by the International Standardisation Organisation as the means for transcribing Chinese in 1982 (Chen 1999; Ramsey 1987; Rohsenow 2004). The National Conference on Language and Script Work of 1986 declared that there would be no further moves towards phonetisation of the writing system, confining Pinyin to these auxiliary roles (Zhao and Baldauf 2011).

A widely held perception throughout all the eras discussed here which has worked against the replacement of characters is that a phonetic writing system is not suitable for Chinese because of its large number of homophonous morphemes and words. Kirkpatrick (2010) gives the example of *jī*, which can have thirty-five different meanings. In speaking these are not problematic because the context makes clear what is being talked about, but in writing, where such contextual clues are reduced or missing completely, homophones can only be distinguished by using different characters.

In addition, there are many dialects of Chinese across the country, some of which are mutually unintelligible in their spoken forms. The written script however, is the same all over China and no matter what dialect one speaks, the written script can generally be understood<sup>8</sup>. As discussed above, adopting a phonetic script implies different scripts for each dialect. The fact that characters are not truly phonetic also means people can read very old texts such as Tang dynasty poetry and the works of Confucius, at least to some extent. This cannot be done with a language with a phonetic script because the sounds of the language, and therefore their representation in writing, would have changed considerably since the time the text was written. Characters have therefore provided Chinese people with a sense of unity and the

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<sup>8</sup> Modern Written Chinese is based on the grammar and lexicon of Mandarin, and is therefore easier to understand for L1 speakers of Mandarin than for L1 speakers of other dialects (Chen 1999). There are also some characters for words specific to Cantonese, and these are used for various purposes such as in newspapers published in Hong Kong (Kane 2006).

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nation with a sense of continuity with its past (Chen 2007; Taylor and Taylor, 2014). The issue of unity has arguably become more important and sensitive in the current political environment under President Xi Jinping.

There have been no further serious attempts to replace characters with a phonetic script, making it very likely characters will continue to be used for the foreseeable future at least.

#### **4 Sticking on the script: Can Chinese go global?**

In the 21<sup>st</sup> century, the debate about characters has taken on a new dimension, focused on the future global status of Chinese. A review of academic and media sources shows the dominant view is a character based writing system will prevent Chinese from becoming a global language. To determine whether this is a sound argument, it is necessary to explore and analyse the language beliefs/ideologies which inform it, as well as draw implications from the current language practices associated with English as a global language for those likely to accompany Chinese should it become a global language.

##### **4.1 Flawed assumptions**

The linguist John McWhorter (2015) says that “truly mastering the writing system virtually requires having been born to it”. Similar views are expressed in the media, such as an article on the Voice of America (VOA) Learning English website which says Chinese has “a tone and writing system that is more difficult for adult learners to master” than other languages (Brock, 2014). Such statements assume everyone must learn to read and write, and must do so to a native-like level. However, this does not reflect the current situation and use of English. Not everyone can read and write, and certainly not to a native-like level.

While there are no definitive figures for levels of English language proficiency around the world, the Education First English Proficiency Index (EF EPI) does give a broad brush indication, and is based on actual test results rather than estimates or impressions of proficiency, as is often the case. It is also regularly referenced by researchers working in the field of English language education. The 2018 EF EPI ranks 88 countries/territories from very high to very low levels of proficiency in English based on the EF Standard English Test results of over 1.3 million participants. The EF Standard English Test is conducted online and covers reading and listening skills. While rankings are not broken into individual skills, the results as displayed in Table 1 show a cline of proficiency with 12 countries in the very high group, 15 in the high group, 17 in the moderate group, 21 in the low group and 23 in the very low group, as defined by the Common European Framework of Reference (CEFR) levels (Education First 2018)<sup>9</sup>.

**Table 1:** Levels of English language proficiency worldwide

<b>Proficiency Band</b>	<b>Number of Countries/Territories</b>	<b>Example Countries/Territories</b>
Very high (CEFR Level B2)	12	Sweden, Netherlands, Singapore
High (CEFR Level B1)	15	Poland, Philippines, Switzerland
Moderate (CEFR Level B1)	17	India, Nigeria, Hong Kong SAR
Low (CEFR Level B1)	21	Georgia, Chile, China
Very low (CEFR Level A2)	23	Iran, Morocco, Tunisia

*Source:* compiled from data in Education First (2018)

Clearly there are more countries/territories in the very low and low groups than the high and very high groups. Yet English functions as a global language despite the fact not everyone possesses native or native-like proficiency. The reasons for varying degrees of proficiency are complex, but one important contributing factor is that people learn only as much English

<sup>9</sup> The EF EPI states “the High, Moderate, and Low Proficiency bands correspond to CEFR level B1, with each band corresponding to a single EF course level” (Education First 2018: 45). No further information is given about the EF course levels but presumably they are catered to different proficiency levels.

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as is required for their purposes. The same would apply to Chinese as a global language. To offer an example of such language practices, I observed a stall holder in Adelaide's Central Market call out to Chinese shoppers, “买菜, 买菜” (*mǎi cài, mǎi cài*), which means “Buy vegetables, buy vegetables”. It is unlikely the stall holder knows how to read or write the characters but there is no need to: he only needs enough Chinese to attract the attention (and money) of Chinese shoppers. Such language practices are similar to stall holders in markets in China who call out “Hello, look, look” to foreign tourists.

Even where reading and writing are necessary, not all learners will need to reach the same level of proficiency. A large Chinese dictionary would have 50,000 or more characters, but nowhere near that amount is required for what a learner (or a native speaker for that matter) might reasonably be expected to do. Table 2 below shows the number of characters required for various purposes, ranging from limited literacy to scholarly, high level literacy.

**Table 2:** Characters required for various types of literacy

<b>Purpose</b>	<b>Number of Characters Required</b>
Scholarly, high level literacy	6,000
Functional literacy	3,500
Limited literacy	2,000

*Source:* compiled from data in Taylor and Taylor (2014)

The amount of characters required will again depend on what a learner needs to do with the language. It should not be assumed that “mastery”, with its implied native speaker level, is an appropriate goal or model for all learners. This notion has in fact been heavily critiqued and criticised in English language teaching and learning for more than two decades (see for example Canagarajah 1999; Cook 1999; Phillipson 1992), so it is strange that it should be applied to discussions of Chinese as a potential global language.

## **4.2 Technology and the learning and use of characters**

The difficulty of and time required to learn characters are often put forward as reasons why Chinese will not become a global language. A typical statement is expressed by Lu (2008: 268) who says, “the complexity and difficulty of the writing system handicap its spread”. He (2008: 273) goes on to say “if the writing system of Chinese remains hard to learn for foreign learners, it will be hopeless for Chinese to become a world language”. Ulrich Ammon says that although Chinese will increase in importance among the world’s languages in the future, it is “difficult to read and write” (quoted in Noack 2015). Martinez (2015) similarly argues that difficulty and time will count against Chinese when he says, “the language is just too hard for outsiders to attain fluency in it[,] at least for outsiders who can’t devote themselves full-time to memorizing thousands of characters over a number of years”. MacKenzie (2018: 98) echoes this sentiment when he says most people whose L1 is not related to Chinese “will find learning Mandarin an overly daunting prospect” because “learning to read Chinese involves learning several thousand characters” and substantial time to learn them.

The scope and scale of the task of learning characters should not of course be underestimated. Approximately 30% of class time in Chinese primary and secondary school is spent on learning Chinese, with a considerable amount of that focused solely on learning characters. According to some estimates, it takes two years longer to learn the Chinese writing system than a phonetic writing system (Chen 1999; Kirkpatrick, 2010). Drawing on his substantial experience teaching the Chinese language, Kane (2006) suggests that second/foreign language learners can learn approximately 30 characters per week at most. Learning to read and write even the minimum number of characters described above will therefore be time consuming for most learners. Kirkpatrick (2010) also raises the valid question of whether there is sufficient time in the school/university curriculum to learn to read and write Chinese.

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However, technology has had a considerable impact on writing practices, and can make learning and using characters considerably easier and quicker for those learners who do need to do so. Computers, mobile phones and other electronic devices have software which converts Pinyin into characters. When Pinyin is typed, a character generation box will appear on the device with all the characters whose pronunciation matches the Pinyin, arranged in order of frequency of occurrence. The required character can then be selected. Entering two or more syllables at once usually expedites the process as it is clear what characters are needed from among the options available (Taylor and Taylor 2014). For example, if one wants to write 你好, the Chinese word for “hello”, which in Pinyin is rendered *nǐ hǎo*, one simply types the letters “ni” and the software will display all the characters which are pronounced “ni”, and one selects the correct character. The same is then done for “hao”. Typing “nihao” as a single unit will bring up both characters together. This is arguably the dominant way of writing for Chinese speakers today<sup>10</sup>. In the context of debates about the possibility of Chinese becoming a global language, this means people need only learn Pinyin and character recognition, rather than character writing. This obviously saves much time and effort.

These same technologies make accessing learning materials easy and immediate. A YouTube search for “how to write Chinese characters” for example shows dozens of videos and a Google search shows 116,000,000 results. Mobile apps are another such source. The Chinese Characters First Steps app, developed by Open University, allows learners to look up the meaning, pronunciation and typical uses of characters in an online dictionary; use Pinyin to select and recognise characters; and test their knowledge of characters (Kan, Owen and Bax

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<sup>10</sup> In China there is concern that this is leading people to forget how to write characters. I see this as a separate issue from non-native speakers learning Chinese as a second/foreign language.

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2018). All of these provide a richer and more varied environment for learning and using characters than what was available to learners prior to the development of such technologies.

There is already research on how technology can facilitate the learning and use of characters (see for example Levy and Steel 2015; Shei and Hsieh 2012; Kan, Owen and Bax 2018), and this will likely grow as Chinese is added to the school and university curriculum around the world. This will in turn lead to improvements in teaching practice. Although the Chinese script may still take more time to learn than a phonetic one, sound teaching methods and quality teaching materials implemented by well-trained teachers can make this process far more efficient and effective.

#### **4.3 A (partial) historical precedent**

Bruthiaux (2002) argues writing systems are one key factor in determining whether another language could replace English as a global language and sees this as particularly detrimental to the prospects for Chinese. He (2002: 140) says the “continued reliance on a primarily logographic script is likely to limit the chances of Chinese as currently written acceding to a global role even in the likely event of a massive expansion of China’s geopolitical clout in the coming decades”. Robert Lane Greene, *The Economist’s* language correspondent, makes a similar argument: “As long as China keeps the character-based system—which will probably be a long time, thanks to cultural attachment and practical concerns alike—Chinese is very unlikely to become a true world language, an auxiliary language like English, the language a Brazilian chemist will publish papers in, hoping that they will be read in Finland and Canada” (Lane Greene 2012). And Pullum (2016), in a piece titled “The awful Chinese writing system”, poses the question “is the Chinese writing system a sufficient reason on its own to guarantee that Mandarin will not become a global language like English?”, and answers in

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the affirmative. Dorren (2018: 335), meanwhile, acknowledges Chinese will become more important in the future due to China's rise, but rules out the possibility that it will become a global language because it "is just too damn difficult" because of its "inefficient script". MacKenzie (2018: 98) is equally direct in seeing the difficulty of learning the script as a significant obstacle, arguing it "would seem to count against Mandarin becoming a *written* global lingua franca [emphasis original]"<sup>11</sup>.

Chinese has in fact been adopted by people outside of China before as a result of China's standing in the world. Scholars, officials and Buddhist monks in Korea, Japan and Vietnam used Chinese characters as their written lingua franca from roughly the 3<sup>rd</sup> century to the second half of the 20<sup>th</sup> century, as documented by Denecke (2014), Kornicki (2018) and Snow (2010). Its use and status were akin to Latin in medieval Europe, and as such these countries constituted what Denecke (2014: 209) calls the "Sinographic Sphere". Chinese was used for reading and writing texts in the domains of administration, religion and highbrow literature (Denecke 2014). Most interesting in light of claims that Chinese is unsuited to a global role is the phenomenon of 笔谈 *bǐtán*, "brush talk". Brush talk involved East Asian diplomats conducting face-to-face communication with their Chinese counterparts by writing characters down on paper. A shared spoken language was unnecessary because of the logographic nature of the Chinese script (Denecke 2014). Clements (2018) shows brush talk was also practiced during diplomatic interactions between Choson Korea and Tokugawa Japan from the 17<sup>th</sup> to 19<sup>th</sup> century.

Chinese was not used because of the merits of characters as a writing system, but because China was admired as the most advanced and civilised country in the world, and these people

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<sup>11</sup> MacKenzie (2018) also argues tones and homophones will prevent Chinese becoming a spoken global lingua franca but this is not the focus of this article.

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desired to emulate China. This admiration of Chinese culture and civilisation was sufficient to prompt the learning and use of characters *despite* the difficulties involved. Of course, this is a somewhat limited precedent as the use of Chinese at this time was clearly not on the same scale as present day English. Those who did use Chinese also employed various techniques to make the use of characters easier, such as notating texts with diacritic marks which indicated grammatical aspects of the native language and following the sentence structure of their native language when writing texts in characters (Denecke 2014; Snow 2010).

Nevertheless, it does demonstrate people will invest time and effort to learn and use characters if there is sufficient motivation to do so. China's economic and political importance could well provide such impetus today, a point I will return to later.

For now, it should also be noted that these past language practices have left a powerful legacy. With the exception of Vietnam which has used a Romanised writing system called *Quoc Ngu* since 1945 (Lo Bianco 2001), these countries still use Chinese characters to some extent. Japanese uses Chinese characters (called as *kanji* in Japanese) for the majority of its nouns as well as verb, adjective and adverb stems, and *hiragana* (a syllabary) for its affixes. Another syllabary, *katakana*, is used for foreign loan words and names. Both are based on the shapes of Chinese characters (Gottlieb 2001). Some 2,136 characters are taught in schools and approximately 3,000 are used in newspapers, magazines and books (Gottlieb 2012).

In the case of Korean, just over half of its vocabulary is originally from Chinese, and these words are partly written with Chinese characters (called as *hanja* in Korean) in newspapers and journals in South Korea. Secondary school students are also expected to learn 1,800 characters. In North Korea, the use of characters has been eliminated in everyday usage, but

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3,000 characters are still taught across secondary school, technical school and university to maintain comprehensibility of the script in case of reunification (King 2007; Song 2001). Learners who are literate in these languages will have the advantage of being familiar with many Chinese characters already<sup>12</sup>.

#### **4.4 Focus on linguistic properties**

A common thread running throughout all of the statements presented here is that they focus on the linguistic properties of Chinese. This idea is captured in Kirkpatrick's (2010: 15) statement that "The major – perhaps the only – disadvantage that Chinese has is a linguistic one, namely the complexity of its script"<sup>13</sup>. According to Araya (2012), "The writing system for Mandarin is arcane, and it consists of thousands of symbols rather than a simple alphabet", and this will greatly affect its chances of ever becoming a global language. Once again, there is a disconnect between these statements and what is known about how English became a global language. A basic tenet in this field of study is that the global status of a language is not determined on linguistic grounds. Claims that English become a global language because of its linguistic properties, such as its high number of loan words, minimal inflections or lack of grammatical gender, have been dismissed by scholars (see for example Crystal 2003; Galloway and Rose 2015).

It is also worth remembering that English has its own script problems due to considerable discrepancies between how English sounds and how it is spelled. One writer has described the English alphabet as having an "idiosyncratic and whimsical relation to pronunciation" (Dorren 2018: 326). There are six such discrepancies, as shown in Table 3 below.

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<sup>12</sup> Of course not all students in these countries will finish their education able to read and write these characters proficiently but they will nevertheless have some familiarity with the script.

<sup>13</sup> Kirkpatrick (2010) makes this point in his discussion of the prospects of Chinese becoming a working language of the Association of Southeast Asian Nations (ASEAN), but it is relevant to my discussion of Chinese as a potential global language.

**Table 3:** Sound/spelling discrepancies in English

<b>Discrepancy</b>	<b>Examples</b>
A single sound can be represented by different letters	<u>h</u> e; be <u>l</u> ieve; <u>s</u> ee; <u>p</u> eople; <u>s</u> eize; <u>s</u> ea; sil <u>l</u> y; <u>k</u> ey where all words represent [i] with different letters
A single letter can represent different sounds	<u>d</u> ame [eɪ]; <u>d</u> ad [æ]; <u>f</u> ather [a]; <u>c</u> all [ɔ]; vill <u>a</u> ge [ɪ]; <u>m</u> any [e]
A single sound can be represented by more than one letter	<u>sh</u> oot [ʃ]; <u>ch</u> aracter [tʃ]; <u>Th</u> omas [t]; <u>ph</u> ysics [f]; <u>de</u> al [i]; <u>co</u> at [oo]
Some letters do not represent any sounds in a word	<u>w</u> hole; resign; <u>gh</u> ost; lam <u>b</u> ; <u>i</u> sland; <u>p</u> sychology
Some sounds do not have a specific letter to represent them	<u>c</u> ute; <u>f</u> uel; <u>u</u> se where ‘u’ is [ju]
A single letter can represent two sounds	bo <u>x</u> ; sax <u>o</u> phone where ‘x’ is [ks]

*Source:* compiled from data in Dobrovolsky (2011) and Fromkin et al. (2018)

All of these make learning English complicated for non-native speakers. Yet, none of them stopped English becoming a global language for the simple reason that it is not the linguistic properties of a language which make it global, but the power and influence of the countries in which it is spoken. Britain was the leading colonial power during the 17<sup>th</sup> and 18<sup>th</sup> centuries, and the originator of the Industrial Revolution in the 19<sup>th</sup> century, while the USA was the world’s leading economic, political, military, scientific, and cultural power throughout the 20<sup>th</sup> century and into the early 21<sup>st</sup> century. Assuming China’s power and influence continue to grow, it is reasonable to expect that the use and status of Chinese will also expand, regardless of its linguistic features.

## 5 Conclusion

According to Vaish (2010), the use and status of Chinese on the global level has yet to receive adequate attention from applied linguists, especially in comparison to the vast amount of work conducted on English. Ascertaining the role of the writing system is one key aspect of understanding the future global dynamics of the Chinese language. Much of the discussion to date has shown flawed assumptions about proficiency, a lack of recognition of the use of technology and the historical precedent for the adoption of characters, and excessive focus on

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linguistic properties. This is not to say that Chinese will become a global language any time soon; as I have argued elsewhere, it is still a long way behind English (Gil 2011). But, should conditions prove right, a character based writing system will not prevent Chinese becoming a global language.

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