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**GLOBAL PERSPECTIVES**

Paper 3 Presentation

PRE-RELEASE MATERIAL

**To be given to candidates**

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**9777/03/PRE**

**May/June 2018**

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**READ THESE INSTRUCTIONS FIRST**

**Guidance for Teachers**

This Resource Booklet contains stimulus material to be used by candidates preparing their presentation for 9777/03. One copy should be given to each candidate.

Presentations must be prepared in a four-week period. This may take place at any point before 31 May 2018, by which date all presentations must have been submitted to Cambridge via the Cambridge Secure Exchange.

The Presentation is marked out of 40.

**Instructions to Candidates**

- You should use the enclosed stimulus material to help you identify the subject for your presentation.
- Your presentation should attempt to answer a question.
- Your presentation must address alternative perspectives on the question you select and must engage directly with an issue, an assumption, evidence and/or a line of reasoning in one or more of the documents within this Booklet (i.e. you should not just pick an individual word or phrase which is not central to the reasoning of or the issues covered by the documents).
- You are expected to reflect on these perspectives using your own research.
- Your presentation should be designed for a non-specialist audience.
- Originality in interpretation is welcomed.
- Your presentation may be prepared in a variety of formats and should normally include an oral commentary.
- The speaking or running time of your presentation should be a maximum of 15 minutes.
- Whether presented or not, the submission must include a verbatim transcript of the presentation.

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This syllabus is approved for use in England, Wales and Northern Ireland as a Cambridge International Level 3 Pre-U Certificate.

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This document consists of **12** printed pages.

## Document 1

### 'China can help to make the world a safer place'

Adapted from an article in *China Daily*, 26 August, 2015.

**The author is an honorary fellow with the Center of China-American Defense Relations, Academy of Military Science, PLA, China.**

China is rising, amid awe, fear and admiration. It is getting closer to the place it had once enjoyed in its heydays. But a rising China yearns to be loved rather than awed, let alone feared. From 1949 to 1979, albeit for different reasons, China fought a war in every decade. During the Cold War era, China had to prepare for the worst scenario involving confrontations with two superpowers at the same time. But from 1980 onward, China has not used force in any dispute with any country. In other words, China's growth in comprehensive national strength since reform hasn't made it belligerent and its integration with the outside world has made its behavior more benign and predictable.

Although it has veto power as a permanent member of the UN Security Council, for many years China believed it was wearing a straitjacket of international systems and regimes that are made by the West. But China's attitude has changed in recent years. As the second-largest economy in the world, it no longer calls for establishing 'a new international political and economic order'. Instead, Premier Li Keqiang declared during his visit to India that China is the beneficiary and protector of the current international order and international system. The warm response from many Western countries to the China-proposed Asian Infrastructure Investment Bank is an example of how China can really help in improving current international financial systems.

A stable world order depends, in the first place, on whether China and the US can trust each other. In spite of talks at all levels and direct communication links, the biggest issue between the two countries is still trust. China is not convinced that the US can accommodate a socialist country, while the US believes a stronger China is determined to drive it out of the Western Pacific. For many in China, no matter how the US changes its tone, America's rebalance toward Asia is at least because of China and at worst against China. The latest efforts of the US – trying to dissuade its allies from joining the AIIB – doesn't assure China of the US's 'good intention' either. Indeed the Sino-US relationship will never be void of twists and turns, but the best hope is it will be manageable, rather than confrontational.

The last thing the PLA wants is to be seen as 'world police'. But this doesn't mean it cannot cooperate with the West in common areas. In fact, the PLA's external relations extend to more than 150 countries. The Chinese naval task forces have worked in tandem with the naval forces of European Union countries to escort ships for the World Food Program. Its medical resources are shared with navies from more than 20 countries in fighting piracy. It is even discussing technical possibilities of mutual refueling with the EU and NATO.

In human history, a unipolar world never existed, a bipolar world only survived briefly and a multipolar world is often the reality. Seventy years after the end of WWII, the world has gone through the vicissitudes of the Cold War, the independence of colonial countries, the disintegration of the Soviet Union and the rise of China. Each of these has fundamentally shaped the world order. If indeed the rise of China is the most important event of the twenty-first century, the message is clear: The PLA can help to make the world a safer place.

## Document 2

### 'How to benefit from China's innovation boom'

**Adapted from an article on the website of the World Economic Forum, a not-for-profit foundation based in Geneva, Switzerland.**

**Edward Jung, former Chief Architect at Microsoft, was Chief Technology Officer at Intellectual Ventures.**

For more than a century, the United States has been the dominant global force for innovation. But China and other Asian countries are now testing that dominance, and the West should welcome the challenge.

China's move from imitation to innovation has been a matter of national policy in recent years. In 2011, for example, the government established a set of ambitious targets for the production of patents. Almost immediately, China became the world's top patent filer.

China soon surpassed the US in other important measures. Each year, Chinese universities award more PhDs in science and engineering than US institutions do – and more than twice as many undergraduate degrees in these fields.

Moreover, China is set to outpace the US in investment in research and development. Since 2001, China's R&D expenditure has been growing by 18% annually and has more than doubled as a share of GDP. In the US, that ratio has remained relatively constant.

To be sure, such metrics can easily be manipulated – a fact that critics are quick to point out. But statistics from the US National Science Foundation reveal a genuine drive to innovate across much of Asia, with East, South and Southeast Asian countries together spending more on R&D than the US. And technology-intensive activity in the region is fast approaching that of North America and Western Europe.

In fact, Asian countries are helping to fuel one another's innovative success. China's invention initiative has produced such rapid results in part because the government actively cooperates with its Asian competitors.

Indeed, despite territorial disputes and other divisive issues, the commissioners of the patent offices of Japan, South Korea, China and, to a lesser extent, Singapore and Taiwan meet often to define and coordinate their intellectual-property (IP) policies. China's leaders know that they can learn from countries like Japan and South Korea, which implemented policies to encourage innovation and protect IP rights long before China did.

The precise impact of Asia's IP expansion is impossible to predict. But its transformative potential is obvious.

Asian countries are essentially giving tens of thousands of top minds the opportunities and incentives to tackle today's most pressing challenges, such as developing cost-effective sustainable energy solutions, ensuring affordable health care for aging populations, and improving the quality of life in overcrowded cities. These complex problems demand a plurality of innovative talent and long-term international collaboration – not just to find solutions, but also to deploy them. In an increasingly knowledge-based global economy, partnerships and cooperation will be the natural order.

In this context, the West would be foolish to resist Asia's IP emergence. Instead, Western governments should support, learn from and reap the rewards of the invention boom in the East. For example, the US, which leads the world in bringing innovative products to the market, should offer commercialization channels to innovative Chinese universities and small companies. And Chinese and Western companies should be encouraged to invest in one another's IP.

Such cooperation has already begun. For example, in 2008 Intellectual Ventures (which I helped found) established a presence in China and other countries with emerging innovation cultures in order to focus their inventors' talent and energy. The resulting global network of more than 400 institutions and over 4,000 active inventors has produced more patent applications than many R&D-intensive companies do.

In this ecosystem, everyone wins. The inventors gain access to the company's expertise in IP development and to an international community of experienced problem-solvers.

Imagine if more such initiatives were launched, not only by companies but also by governments. A cooperative approach could help to improve the troubled trade dynamics between Asia and the West.

As Asian innovation comes into its own, the US and other developed countries must find ways to participate – or risk missing the opportunity of the century in a vain bid to recapture bygone supremacy.

### Document 3

#### 'The myth of the Thucydides trap: examining China–US relations'

Adapted from an article in *Harvard Political Review*, 16 October, 2015.

Apoorva Rangan was based at Harvard University.

Several hot-button issues were on the agenda for Chinese President Xi Jinping's recent visit to the United States: cyber security, nuclear policy, and climate change, to name a few. An Ancient Greek academic would seem to have no place at a table set with such twenty-first century issues.

Yet, the fourth-century BCE historian Thucydides holds relevance in the context of current US–China relations. Thucydides wrote the definitive history of the Peloponnesian War, a 20-year military conflict between Athens and Sparta from 431 to 404 BCE.

Here's his framework: Sparta was an established power in control of the Peloponnesian League, while Athens was quickly rising in the Greek world order. Thucydides wrote, 'The Athenians made their empire more and more strong, and greatly added to their own power at home. [The Spartans] for most of the time remained inactive ... and also [were] prevented from taking action by wars in their own territory.'

Sparta eventually declared war, aiming to strike before Athens grew even stronger. Thucydides thus attributes the war to 'the growth in power of Athens, and the alarm which this inspired in Sparta.' The established power's fear and overextension and the rising power's ambition rendered the two parties vulnerable to conflict.

Sound familiar? Harvard Kennedy School professor Graham Allison thinks so. Referencing the historical model as 'The Thucydides trap', Allison recently published an analysis of the 16 most recent international conflicts between an established power and a rising one, dating back to the 1600s. Included in the list are tensions between Germany and Britain before World War I as well as Soviet–American relations during the Cold War. Twelve of these Thucydian conflicts resulted in war, while four remained peaceful.

According to Allison, the United States and China may be setting their own Thucydides trap. He draws a parallel between Chinese and Athenian expansion and compares the United States' and Sparta's fear and overextension. Allison uses the historical record to argue in *The Atlantic* that the potential for violent conflict between the United States and China is greater than many people believe. In the context of Allison's assertions, President Xi Jinping's recent visit to the United States deserves to be examined with the Thucydides framework in mind. While there are definitely broad similarities between the United States–China and Sparta–Athens dynamic, several key differences decrease the likelihood of violent conflict.

#### The players

There are salient similarities between the Greek dynamic and the modern one: a democratic power versus a tightly centralized one, and a society founded on free speech versus one reliant on governmental control.

It's also true that China is expanding at unprecedented rates, economically and globally, justifying parallels to the rapid expansion of Athens. Singapore's late president Lee Kwan Yew foreshadowed the country's growth in 1994, stating, 'It is not possible to pretend that [China] is just another big player. This is the biggest player in the history of the world.' The Congressional Research Service released a report last month stating that from 1979–2014, 'on average, China [was] able to double the size of its economy in real terms every eight years'. The communist power is expected to displace the United States as the world's largest economy. The International Monetary Fund predicts that in terms of purchasing power parity, China's GDP will be 21.9 percent larger than the United States' in 2019. And if current rates of growth continue, the nation may also reach military parity with the United States by the 2030s.

If China and the United States could not simultaneously possess power, and if the two countries were diplomatically unengaged, these factors would perhaps point in the direction of violent conflict. However, Xi Jinping's recent visit suggests that both parties are invested enough in each other to steer clear of the trap.

### **Diplomacy, not war**

Xi Jinping's September visit to the United States was the third meeting between the Chinese and US leadership within two years. His visit underscores China's awareness of its increasing priority on the US foreign policy agenda but also its attention to diplomacy.

According to Allison, the Thucydides trap's formation depends on two factors: 'the rising power [China]'s growing entitlement, sense of its own importance, and demand for greater say and sway, on the one hand, and the fear, insecurity, and determination to defend the status quo this engenders in the established power [United States] on the other'.

Allison's conclusion of probable war is suspect, however, because not all of these characteristics apply to current US–China relations. Though gross parallels can be drawn between the two pairs of countries, there are increasingly fundamental differences between Athens–Sparta and modern geopolitics. Including the Cold War, the last three pairs of countries that mirrored the Athens–Sparta dynamic avoided direct conflict, indicating that global powers increasingly favor diplomacy over warfare.

The key to avoiding conflict moving forward, therefore, will be for China to grow with transparency about its economic and military intentions and for the United States to respect that growth. If the two countries can continue to nurture their diplomatic bond with Thucydides' warnings in mind, they can avoid missteps of mythic proportions.

**Document 4****‘Stronger China–US ties can benefit Africa’**

Adapted from an article in *Global Post*, 26 September, 2015.

**Xinhua News Agency is the official press agency of the People’s Republic of China.**

A seasoned diplomat and cabinet minister of Zimbabwe said Africa could benefit from closer China–US cooperation as the heads of the world’s two powerful nations met.

Asked to comment on the meeting of Chinese President Xi Jinping with his American counterpart Barack Obama, Christopher Mutsvangwa, a former ambassador to China, said it is a great opportunity when the first and second economies meet at such a high level to exchange ideas.

‘China has made a lot of progress as a developing country in recent years, while the US has a lot of technology, a lot of clout, the two of them coming together, it is very positive,’ said the official.

Mutsvangwa said he hoped the entente between the world’s two major powers could translate into more cooperation in joint development efforts between the two so that Africa can benefit.

‘It only means that we can have a better global atmosphere,’ Mutsvangwa said.

Mutsvangwa said he wants to credit China for the interest it has shown in Africa, particularly the Forum on China–Africa Cooperation (FOCAC), a structure created in 2000.

Since then, China notably ramped up its engagement with Africa. China overtook the US as Africa’s largest trading partner in 2009, while by the end of 2014 Chinese investment stock in Africa had reached 30 billion US dollars, a figure expected to further rise to 100 billion US dollars in the next five years.

‘Now it’s a very fashionable trend with all the major world economies taking an interest in having summits with African leaders,’ he said.

The United States, Japan, and India are among the countries that now have similar mechanisms as FOCAC.

‘It’s a very good development which means Africa will no longer be at the margins of economic development,’ Mutsvangwa said. ‘We are very happy about that as Africans.’

## Document 5

**‘The US and China can avoid a collision course – if the US gives up its empire. The problem isn’t China’s rise, but rather America’s insistence on maintaining military and economic dominance right in China’s backyard.’**

Adapted from an article in *The Guardian*, 29 May 2015.

**John Glaser is based in Washington DC. He has been published in *Newsweek*, *Washington Times*, *The National Interest*, *Reason* and *The American Conservative*, among others.**

To avoid a violent militaristic clash with China, or another cold war rivalry, the United States should pursue a simple solution: give up its empire. Americans fear that China’s rapid economic growth will slowly translate into a more expansive and assertive foreign policy that will inevitably result in a war with the US. Harvard Professor Graham Allison has found: ‘in 12 of 16 cases in the past 500 years when a rising power challenged a ruling power, the outcome was war.’ Chicago University scholar John Mearsheimer has bluntly argued: ‘China cannot rise peacefully.’

But the apparently looming conflict between the US and China is not because of China’s rise per se, but rather because the US insists on maintaining military and economic dominance among China’s neighbors. Although Americans like to think of their massive overseas military presence as a benign force that’s inherently stabilizing, Beijing certainly doesn’t see it that way.

According to political scientists Andrew Nathan and Andrew Scobell, Beijing sees America as ‘the most intrusive outside actor in China’s internal affairs, the guarantor of the status quo in Taiwan, the largest naval presence in the East China and South China seas, [and] the formal or informal military ally of many of China’s neighbors.’ (All of which is true.) They think that the US ‘seeks to curtail China’s political influence and harm China’s interests’ with a ‘militaristic, offense-minded, expansionist, and selfish’ foreign policy.

China’s regional ambitions are not uniquely pernicious or aggressive, but they do overlap with America’s ambition to be the dominant power in its own region, and in every region of the world.

Leaving aside caricatured debates about which nation should get to wave the big ‘Number 1’ foam finger, it’s worth asking whether having 50 000 US troops permanently stationed in Japan actually serves US interests and what benefits we derive from keeping almost 30 000 US troops in South Korea and whether Americans will be any safer if the Obama administration manages to reestablish a US military presence in the Philippines to counter China’s maritime territorial claims in the South China Sea.

Many commentators say yes. Robert Kagan argues not only that US hegemony makes us safer and richer, but also that it bestows peace and prosperity on everybody else. If America doesn’t rule, goes his argument, the world becomes less free, less stable and less safe.

But a good chunk of the scholarly literature disputes these claims. International relations theorist Robert Jervis has written that ‘the pursuit of primacy was what great power politics was all about in the past’ but that, in a world of nuclear weapons with ‘low security threats and great common interests among the developed countries’, primacy does not have the strategic or economic benefits it once had.

Nor does US dominance reap much in the way of tangible rewards for most Americans: international relations theorist Daniel Drezner contends that ‘the economic benefits from military predominance alone seem, at a minimum, to have been exaggerated’; that ‘there is little evidence that military primacy yields appreciable geoeconomic gains’; and that, therefore, ‘an over-reliance on military preponderance is badly misguided.’

The struggle for military and economic primacy in Asia is not really about our core national security interests; rather, it’s about preserving status, prestige and America’s neurotic image of itself. Those are pretty dumb reasons to risk war.



There are a host of reasons why the dire predictions of a coming US–China conflict may be wrong, of course. Maybe China’s economy will slow or even suffer crashes. Even if it continues to grow, the US’s economic and military advantage may remain intact for a few more decades, making China’s rise gradual and thus less dangerous.

Moreover, both countries are armed with nuclear weapons. And there’s little reason to think the mutually assured destruction paradigm that characterized the Cold War between the US and the USSR wouldn’t dominate this shift in power as well.

But why take the risk, when maintaining US primacy just isn’t that important to the safety or prosperity of Americans? Knowing that should at least make the idea of giving up its empire a little easier.

## Document 6

**‘Smile! Genetic engineering is good for you; ignore the pessimists who claim we are on a slippery slope to designer babies. They said exactly the same about IVF.’**

**Adapted from an article in *The Times*, 7 September 2015.**

**Matt Ridley is a British journalist and politician who has written several popular science books.**

Fifteen years after the first sequencing of the human genome, the genetic engineering of human beings is getting closer. Will that mean designer babies and the rich winning life’s lotteries from the start? And will we ever stop this slither down the slippery slope to playing God? My answers are: no, and I hope not. Despite dire predictions, almost nothing but good has come from genetic technology so far, and we’ve proved that we don’t slip down such slopes: we tread carefully.

The current excitement is over gene editing. A precise way of doing this, called CRISPR-cas9, is all the rage among the white-coated pipette-users. Last week, Britain’s five leading medical research bodies (one of which, I should declare, counts me as a fellow, the Academy of Medical Sciences) issued a joint statement supporting the careful use of the new technique on human cells for research and possibly therapy. They even recognised that there might one day be a justifiable demand to use the new technique on embryos in such a way that the changes would be inherited.

We have had bio-ethical worries about six times in the past four decades. First, in the mid-1970s, the discovery of how to do genetic engineering in bacteria led to agonised debates about the risks of biological warfare and accidents. Scientists themselves imposed a moratorium and held a conference to devise rules. Today the technique is routinely used, has virtually never been misused, and has saved or improved the lives of millions: diabetics, for example, use human insulin made by bacteria genetically engineered to include human genes. It turned out better than feared.

Second, in the late-1970s, the discovery of how to fertilise human eggs in test tubes led to equally agonised debates about what this might do to human reproduction – such as allowing people to seek out highly prized human specimens to father or mother their children. In fact, the technology is used not to help people have other people’s babies, but to help them have their own. It has reduced a large cause of wretched unhappiness – infertility – and made millions happy. It turned out better than feared.

Third, in the 1990s scientists began to modify the genes of plants. Opponents raised the prospect of horrifying risks to our food and the environment. Yet trillions of genetically modified meals have now been eaten by animals and people without any widespread problems at all. GM crops have cut insecticide use, raised yields and delivered healthier foods. Today’s scandal is not the harm GM crops have done, but the suffering they have not been permitted to alleviate, thanks to irrational opposition. Even if you are still worried, you must concede that so far it has turned out better than feared.

Fourth, around the millennium, scientists developed techniques to clone mammals and some of us found ourselves on talk shows discussing when vain plutocrats would duplicate themselves or their pets, and at what risk to morality. In fact, cloning has proved helpful in only a very few laboratory settings, but aside from one or two pretty harmless pet-cloning episodes, has not been used at all for frivolous purposes. It turned out better than feared.

As the reaction to early gene therapy failures illustrates, the slopes are not slippery. We advance very carefully down them, retreating if necessary and re-evaluating the issues at every stage. People want to use these techniques to cure diseases, not to do eugenics. Genetic knowledge has not undermined morality or respect for human life. All this does not, of course, prove that future techniques will not be abused, but it must count for something.

The latest gene-editing technique is generating attention because it is so much more precise and effective than previous ways of altering genes. Its first use will probably be in gene therapy – extracting white blood cells from a cancer patient, editing the cells’ genes to fight the cancer and re-injecting them – but even this is a long way off. Work on genes in cells that go on to make sperm or eggs is even further away. Some scientists are calling for a moratorium on even the experimental use of CRISPR-cas9 on embryos until we have discussed all the ethical implications.

That would be a mistake. As genetically modified plants have shown, moratoriums are blunt instruments – easy to impose and difficult to lift when it turns out they are doing more harm than good, especially in the age of social media.

We should always tread carefully, but we should take comfort from the truly remarkable track record of genetic technologies in alleviating more human suffering than we dared to hope, and encouraging fewer bad outcomes than we feared.

## Document 7

**‘Can we trust scientists’ self-control?; new biological techniques create the potential for catastrophe. The self-control of scientists is not enough to protect us, or to secure public trust. National governments must step in.’**

**Adapted from an article in *The Guardian*, 27 April 2015.**

**Filippa Lentzos was Senior Research Fellow, Department of Social Science, Health & Medicine, King’s College London. Koos van der Bruggen was an independent biosecurity expert and former adviser for biosecurity to the Royal Netherlands Academy of Arts & Sciences. Kathryn Nixdorff was Professor Emeritus, Department of Microbiology & Genetics, Darmstadt University of Technology.**

There is a growing convergence of concern about new technologies in the life sciences that are raising significant societal, ethical, environmental and security risks. Global public engagement must be a priority for deliberation about these technologies and for developing a set of common red lines.

The genome-editing technique CRISPR-Cas9 is the latest in a series of technologies to hit the headlines. This week Chinese scientists used the technology to genetically modify human embryos – the news coming less than a month after a prominent group of scientists had called for a moratorium on the technology. The use of ‘gene drives’ to alter the genetic composition of whole populations of insects and other life forms has also raised significant concern.

But the technology posing the greatest, most immediate threat to humanity comes from ‘gain-of-function’ (GOF) experiments. This technology adds new properties to biological agents such as viruses, allowing them to jump to new species or making them more transmissible. While these are not new concepts, there is grave concern about a subset of experiments on influenza and SARS viruses which could metamorphose them into pandemic pathogens with catastrophic potential.

In October 2014 the US government stepped in, imposing a federal funding pause on the most dangerous GOF experiments and announcing a year-long deliberative process. Yet, this process has not been without its teething-problems. Foremost is the de facto lack of transparency and open discussion. Genuine engagement is essential in the GOF debate where the stakes for public health and safety are unusually high, and the benefits seem marginal at best, or non-existent at worst. As a previous piece on this blog noted in relation to CRISPR-Cas9, where there have been calls for a similar process: ‘A moratorium without provisions for ongoing public deliberation narrows our understanding of risks and bypasses democracy.’

The White House is to be commended for putting the funding pause in place last October and launching the year-long deliberative process. While the immediate aim might not be to develop international policy, GOF is inherently a global issue and the debate needs a globally representative group. Provision must be made for robust, broad and deep public engagement and harnessing the views of civil society.

There is more at stake than just a certain set of experiments or the degree of freedom of research. There will be further loss of public trust in scientists and in the institution of science itself if it appears that decisions about such exceptionally risky projects are taken without substantial, genuine involvement by the public and wider civil society. The United States is the only country with the convening power to make an international set of revamped, trust-building meetings happen. Stepping in was admirable, but now is the time to step up.

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