KS BULL

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Lynne Truss' award-winning book, *'Eats Shoots and Leaves: The Zero Tolerance Approach to Punctuation'*, starts with this joke:

> A panda walks into a café. He orders a sandwich, eats it, then draws a gun and fires two shots in the air. "Why?" asks the confused waiter, as the panda makes towards the exit. The panda produces a badly punctuated wildlife manual and tosses it over his shoulder. "I am a panda," he says, "Look it up." The waiter turns to the relevant entry and sure enough, finds an explanation: ***"Panda** – Large, black-and-white bear-like mammal, native to China. Eats, shoots and leaves."*

That a single, misplaced comma can turn a bamboo-chomping herbivore into a gun-toting thug underlines both the importance of punctuation and the need for precision in our use of language. There is good reason why GP and KI teachers seem particularly obsessed with subject-verb agreement, correct syntax, the appropriate use of topic sentences and the like. Precision is necessary if we want to communicate our ideas accurately and effectively.

However, good writing is more than just technical proficiency. Truss' book on punctuation is an apt illustration. A book focused on teaching its readers where, when and how to use a semi-colon does not immediately sound like a page-turner, but *'Eats Shoots and Leaves'* manages to be instructive while being funny and engaging at the same time. A skilled writer not only conveys information accurately, she makes the material relevant, accessible and interesting for the reader.

The aim of the KS Bull is to encourage good writing. We hope you will find the varied collection of student essays interesting and thought-provoking. We also hope that through the different examples of effective writing, you will gain insights that will help you refine your own writing skills.

Happy reading.

Reavley Munn Ye (Mrs)
Deputy Principal (Curriculum)

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Essay 1 | Yee Zi Ling Zerlina | 14A03B

To what extent is Singapore a liveable city?

A liveable city is one where its citizens can live comfortably – physically, in good health; emotionally and mentally, where citizens are happy; as well as financially, where the people do not have to worry about their finances. Singapore seems to have fulfilled these criteria – we are touted as one of the most comfortable countries in Asia, we have a clean and safe city that is praised by many, and an advanced healthcare system where the people's health is taken care of. Also, our political scene is one of the least corrupt in the world with a good government ensuring political stability. However, there is another side to this seemingly perfect country as well – the cost of living may have become too high for some Singaporeans to cope with, and, coupled with their financial worries in old age, as well as the increasing unhappiness generated by the influx of immigrants, Singapore may not be the perfect fairy-tale city that is liveable for all citizens, after all. Singapore's cleanliness and safety make it a liveable city. It is a place where people can breathe clean air and go to bed at night with peace of mind. Without doubt, it is one of the cleanest and safest cities in the world. While countries like France have their streets littered – or even covered – with cigarette butts, Singapore has laws and regulations which prohibit littering, and even bans on the sales of chewing gum (one of the most common pieces of litter), ensuring that our 'Green and Clean' city lives up to its name. In other countries, one may find skilled pickpockets roaming the streets, whereas in Singapore, there are relatively few cases of theft and other forms of crime. Its gun laws prevent violent crime such as the tragic case of a shoot-out at the premiere screening of 'Batman: The Dark Knight Rises' in Colorado. Singaporeans are able to live without fearing for their safety every minute of the day. Thus, Singapore, in this aspect, has done well to make itself a liveable city for all Singaporeans, with clean air that ensures the people's health, and safety provided by good law enforcement.

Singapore's government also boasts little corruption and red tape, which ensures political stability essential for a liveable city. There have been no wars or political riots in Singapore since we gained independence, and our government's foresight has made Singapore what it is today – from a small and insignificant fishing village in the early years, to the vibrant economic hub we are today. Our government is also democratically elected, and claims to be as transparent as possible. However, recent issues of embezzling and scandals in the personal lives of members of the civil service and Members of Parliament have embroiled the government in murkier waters, and evoked distrust amongst the people. Still, Singapore's government is, undeniably, one of the least corrupt in the world, and has managed to ensure the people's economic welfare with rapid and sustainable economic growth. Thus, the Singaporean government's responsible governance and lack of corruption have made Singapore a politically-stable country to live in.

Singapore's excellent healthcare facilities also ensure the people's health, which is essential for it to be called a 'liveable city'. The government's policies have allowed a skilled workforce to emerge, with qualified doctors and nurses who contribute to the advanced healthcare system in Singapore. Advanced technology, especially in

the biomedical field, with facilities such as the Biopolis, a biomedical hub, allows for intensive and highly specialised research, enabling our medical system to achieve a world-class standard. Patients from less developed countries flock to Singapore for specialised treatment due to our sophisticated facilities and well-trained medical staff. Thus, the health of its people is ensured, making Singapore a city where people do not have to worry excessively about the availability of medicine and their health.

However, while Singapore has made itself a liveable city in the aspects of people's health, safety and political stability, the high cost of living may have gotten too much for Singaporeans to bear; in this aspect, Singapore is not a liveable city. With rapid economic growth, Singapore has transformed from a third-world country to a first-world country in less than half a century. This economic growth has made Singapore the sixth most expensive city in the world to live in, and the Singapore dollar has appreciated 15 per cent in the last five years. Despite enjoying a much higher quality of life now, Singaporeans may have trouble coping with inflation as the prices of their basic necessities – housing, food and transport – climb at worrying rates. The prices of HDB flats in Singapore have increased by fifty per cent from 2007 to 2011 – merely four years – making home ownership a dream that not everyone may be able to attain. Also, public transport fares have risen, the most expensive being taxi fares. With the escalating costs of living, it is increasingly harder for Singaporeans to live in such an expensive city with many entertaining thoughts of migrating to places with a more relaxed pace of life, and a lower cost of living. Thus, by looking at the people's reactions to Singapore's economic growth and resultant cost of living, it is clear that Singapore has become a city that is unaffordable to live in for a growing number of people.

The fact that Singapore is not a welfare state means that Singaporeans have to face the worries of rising costs as they retire, making Singapore a country that is not liveable in this aspect. Healthcare costs are high, despite the many schemes that the government has put in place to relieve the financial worries about healthcare. A Mindshare survey conducted in 2012 showed that 72 per cent of Singaporeans think that it is too expensive to fall sick in Singapore, revealing their worries and concerns about ageing in Singapore. The government has drawn up measures to enable Singaporeans to age without worry, such as the Central Provident Fund (CPF), where monthly contributions to their personal accounts come from Singaporeans' own income. This acts as a retirement fund for Singaporeans, so that they do not carry a financial burden into old age. However, this is a disadvantage to the low-income earners as their CPF savings are bound to be less than a high-income earner. Also, MediShield, which uses the funds in the CPF, is used to cover Singaporeans' medical bills. Thus, if a low-income earner were to fall ill in old age, he/she would barely have enough to cover his/her medical bills, given the high cost of healthcare and his/her meagre amount in the CPF. With healthcare costs seen as too expensive for more than half of the country's citizens, this is, indeed, a cause for worry. Thus, Singaporeans do not have the ability to age gracefully and worry-free, making Singapore a country that is not liveable for many of the elderly who face healthcare costs due to old-age ailments – and especially so for the low-income earners.

The increasing number of immigrants in Singapore, an action made possible by the government, has resulted in much resentment and dissatisfaction amongst Singaporeans, making Singapore an unhappy country to live in. Foreigners make up nearly 30% of the population in Singapore, and Singaporeans have increasingly started

to show signs of xenophobia, as the strain on the country's infrastructure is largely caused by the growing immigrant population. For example, the trains and buses are often overcrowded and break down, and Singaporeans increasingly blame this on foreigners. Cultural misunderstanding and incompatibility between Singaporeans and foreigners serve to further exacerbate the xenophobia, for example, when the mainland Chinese couple complained about the intolerable smell in their HDB flat, which was caused by the local Indian families cooking of curry, or the NUS mainland Chinese scholar who called Singaporeans 'dogs'. These incidents sparked much unhappiness and anger online, where Singaporeans fuelled each other's resentment towards the foreigners. Thus, the increasing population density, resulting in much overcrowding and the breakdown of inadequate infrastructure, as well as cultural differences, resulting in ignorance on the part of foreigners, and disdain on the part of Singaporeans, have resulted in Singaporeans' unhappiness. This has made Singapore an increasingly unhappy country for the people to live in, which makes it a country that is not liveable in terms of the people's state of happiness.

It is interesting to note, however, that the question implies that it is possible for a country to be perfect – to be completely liveable, in all aspects of the people's lives. However, this seems like an ideal that is unrealistic, as there will always be imperfections in any country. The Scandinavian countries – which are known to be the happiest in the world – with a comfortable pace of life, may not enjoy an economy as prosperous as Singapore's, while the richest countries in the world – the USA and China, each have their fair share of problems – the people's safety is not guaranteed in America, while pollution and political problems plague China. Thus, it is unrealistic and perhaps naïve to think that a country could be perfectly liveable, in every sense of the word.

In conclusion, Singapore's cleanliness, safety, political stability and advanced medical system make it a country that fulfils the physical well-being of the people. However, the people's welfare seems to be compromised as a result of the pursuit of economic growth, the growing dissatisfaction and discomfort have made Singapore a country that is not liveable for the people. Hence, it can be seen that the government and the people have differing ideas of what makes Singapore liveable, and a compromise has to be made to ensure the happiness of the individual and the well-being of the country's economy.

Marker's comments:

A thoughtful essay with flashes of insight. You have displayed substantial knowledge about the current state of affairs in Singapore. Do note, however, that an introduction should not be excessively long. In addition to that, there could have been more explicit links to the idea of liveability in the explanation of the paragraph, else it will merely sound like a list of problems. Nonetheless, it was well done.

'Intelligence plus character – that is the goal of true education.'
(Martin Luther King, Jr.) Discuss.

It is difficult to define what true education is. Formal education, so coveted by educational institutions, preaching the value of Hard Science, History and Economics, is just one aspect of it. Recently, a revolution in education has been taking place, with more advocating an integration of character education into a system of arid facts and abstract theories. True education, to me, is not something that an education system itself can define. It is an amalgamation of formal schooling, life experiences and teachings by parents or friends. It seeks to grant an individual a set of constantly evolving skills and a code of ethics for life to make a difference, a positive one, to society. It is not the place here to debate on the merits and demerits of formal schooling versus experiential learning. Suffice to say, the imparting of knowledge and the construction of an individual's character are both incredibly important goals that form the bulk of what true education should fulfil.

In most countries today, the education system is still rather significantly skewed towards formal schooling, the transfer of textbook knowledge from teacher to student in a lecture theatre filled to the brim with supposedly like-minded individuals. There is nothing trivial about this, however. The gathering of working knowledge, be it Newton's Law of Gravitation to explain why our feet are firmly implanted on the Earth's surface or the microscopic view of a human body, is an important aspect of the "intelligence" granted by true education. Despite the scathing criticism that sceptics have levied against this system of formal education, as one which shreds students' self-esteem and terrorises their creativity, it is important to note that without these dry facts thrown around in classrooms, it would be surprisingly difficult to pursue the career of a doctor or lawyer or even a teacher. True education, as I have mentioned, seeks to allow an individual to benefit society, and many, if not all, of the routes leading to this objective require some form of formal schooling. In Singapore, our soaring GDP, sky-high liveability index and renowned rate of growth are testament to the success of an educational system which focuses on the attainment of knowledge and tangible intelligence. Without this aspect, it is difficult to succeed in life, and even more so in the competitive rat-race our globalised world encourages. Education without the attainment of knowledge as a goal is neither a good nor a "true" one.

Apart from the lengths of formal schooling, true education should seek to impart a cornucopia of other types of intelligence, to individuals. Some of the ones that stand out most in today's society include the much enforced "people intelligence", on the ability to communicate well with others, and creativity, the ability to think out of the box. While it is not necessary to ooze charisma of famous speakers like Martin Luther King Jr. or Barrack Obama, it is imperative that we be educated to at least have a resemblance of how to collaborate, compromise and work with others. In addition to teaching how to maintain good interpersonal relations, true education should also aim to bolster one's creativity and adaptability, one of the main attributes that many employers are looking for today. In a recent study conducted by the Association of American Colleges and Universities (AAC&U), it was revealed that more than 90% of employers are searching for potential employees with the ability to communicate their

ideas to their peers in both verbal and written form and more than 70% are seeking candidates who can create and come up with innovative new ideas. A good example of one such company is Google, the technology giant which takes the formulation of novel concepts very seriously. In fact, to allow employees comfortable avenues to think and innovate, the company provides play areas and dance classes to stimulate the flow of ideas. Evidently, intelligence in all its forms plays a huge role in education. Martin Luther King Jr. is definitely correct in saying that true education must seek to impart intelligence to its disciples, be it through schooling or through experience.

But, of course, intelligence is not the only goal of true education. Character is another giant aspect and one that many people maintain should form the crux of education. In fact, the explosion of individuals advocating the importance of an education in character, in morality and in ethics has encouraged many generations across the world to revise the education system into one that focuses less on academia and more on values. Singapore is an excellent example of this. In a commendable effort to lighten the heavy emphasis on knowledge and steer the bulk of education towards a more value-based system, the government has implemented measures such as Character Leadership Education (CLE) classes as well as the elimination of examinations at the lower primary level. In fact, there are even suggestions to do away with the infamous Primary School Leaving Examination (PSLE) to encourage institutions of higher education to select their students based on character, not book smarts. Even in the working world, companies conduct interviews instead of written tests to judge an individual's code of conduct, not the amount of hard knowledge he has amassed in his childhood. Even if, somehow, a person's sheer intelligence allows him to land a job, it is his character, conduct and sense of right and wrong that allow him to keep it. The fruitlessness of an intelligent but socially clueless individual is exemplified in the novel "Flowers for Algernon" where a man, upon attaining intelligence, looks down on others who are not as knowledgeable as he is and gradually loses the ability to communicate with the rest of society. Character plays a large role in deciding how far a person can go in life and it is something that true education must address as thoroughly as possible.

It is clear that Martin Luther King Jr. is absolutely right in saying that intelligence plus character are the goals of true education. However, in many societies around the world, the former is heavily favoured over the latter. Even a first-world nation like Singapore, despite its efforts to strike a balance in the educational system, continues to allocate a disproportionately large amount of resources to the development of intelligence over that of character. This is understandable to a certain extent since the rapid development of the island nation from a fishing village to a bustling metropolis relied largely on the previous cookie-cutter education system to churn out professionals prodigious in the areas of Mathematics and Science. However, now that we have achieved economic success, it is time to focus on the creation of balance in the system, to lessen the stress placed on intelligence and increase the emphasis on a system based on values, because both are understandably crucial to the attainment of success. A nation of charismatic geniuses will eventually be led to ruin if each of them indulged in fundamentally immoral acts like thievery or embezzlement. Similarly, a nation of good-natured, morally upright fools will find it impossibly challenging to attain the economic success necessary to stay afloat in the competitive world. True education is one that imparts the right balance of intelligent and character, one that can give birth to men like Martin Luther King Jr. or Mahatma Gandhi. The key word is balance.

In conclusion, it is not the man who is sharp and witty but ultimately unlikeable and immoral nor is it the man who is friendly with an impeccable code of morals but cannot appreciate the nuances of knowledge who will most benefit humanity. It is the man who has undergone "true education", who has been imparted with a balance of intelligence and character, who will go furthest. I believe it is mostly, if not universally, agreed that the goal of true education is intelligence plus character. What remain are the steps that we must take to ensure that such an incredible education is provided for everyone, for a brighter future.

Marker's comments:

Well articulated, nuances and all! A good, balanced and intelligent response. It has been my pleasure to read this!

| **Essay 3** | Wong Hong Zhe Gabriel | 14S03O |

'An eye for an eye.' Should we apply this principle in addressing wrongs?

"An eye for an eye, and the whole world goes blind", Gandhi once warned, in his valiant, non-violent quest for Indian independence. Throughout the annals of history, cycles of retaliation from the Three Crusaders to the Israeli-Palestinian conflict have besmirched the tapestry of humanity, and tainted its cloth of conscience.

While retaliation, encapsulated in the principle of an eye for an eye, can, to a certain degree, be warranted if executed with purpose and proportion, it should not be the default or primary reaction to a perceived or actual grievous wrong given the risks of escalation and further harm to all parties involved. Hence, instead of regarding this as a principle to correct all injustices, individuals, society and humanity should use the maxim "an eye for an eye" sparingly and in situations of incorrigibility or moral emergencies.

Many political and social actors are often tempted to resort to retaliation as a means of deterring future attacks and hence preventing more wrongs by highlighting ones capacity to inflict commensurate harm on the adversary. Such an outlook is underpinned by the theory of Realpolitik within International relations, the idea that nation states only respond and react based on their respective national interests, and hence the best way to deter harmful acts against oneself is to highlight how such actions can also be detrimental to the other party. Hence, political actors who are able to demonstrate their forceful and aggressive ability to retaliate against any adversary will be better able to prevent future wrongs from being inflicted on them by showing how these wrongs can irrevocably hurt the other side. Such a viewpoint underpins Singapore's national defence objective, which is often described as a "poisonous shrimp". Surrounded by larger, more powerful neighbours, we openly showcase our openness and readiness to retaliate and wreak significant military devastation on the aggressor to ensure our national security. However, such threats must often be carried out when the situation arises for it to be deemed credible. For instance, Israeli's aerial bombardment of Hamas military targets during the Gaza war accentuated its warning of retaliation if terrorists targeted its civilians. Therefore, "an eye for an eye" can be highly effective in preventing opportunistic aggressors from continuing to perpetuate acts of injustice against oneself.

Secondly, "an eye for an eye" is essential for maintaining social control by the state and is the bedrock of many countries' criminal justice system. Such a perspective subscribes to the belief that the human condition is inherently violent, as epitomised in Hobbes' legendary description of life as "short, nasty and brutish" and the only way to restrain such violence and antisocial behaviour from manifesting is through violent retributive acts against criminals by the State. Such a view was proposed by the Chinese Mohist Legalist School of Philosophy, which often encourages the government to use the most severe, retributive means possible to punish offenders to enforce social cohesion. Such treatment also satisfies the aggrieved's desire for "retributive justice", whereby the perpetrators are subjected to equal misery as the victim. Hence, many countries

and societies have enshrined versions of retributive justice within their criminal justice system. A notable example is Shariah law in the Islamic world which gives victims the right to request, in a court of law, equal punishment for the criminal as the harm inflicted on them. For instance, if a victim was permanently blinded in an acid attack, she has the legal right to pour acid over her attackers' eyes. Only through such forms of retributive violence, theorists would argue, can the beastly nature of humankind be deterred and social order maintained to foster culture and civilization.

Lastly, "an eye for an eye", if proportionate, satisfies the intrinsic human need for fairness and equality. The harm inflicted is returned, and the feelings of revenge helps assuage the trauma of the victims and satiates society's innate need to see fairness restored. Such a view can even be argued to be part of Natural Law, since it is intrinsically human to want to ensure evildoers receive their "just deserts", and retribution has been enshrined in many ancient moral codes. Besides, Islam, Judaism and Christianity also advocate some form of natural justice, as seen in the "Ten Commandments" where the divine ordains society with the right to punish those who violate the precept "Thou Shalt Not Kill" with equal punishment – death. Therefore, "an eye for an eye" can be justified under natural justices as a reasonable means of restoring moral parity, if calibrated and proportionate.

However, others will differ. Firstly, many will emphasise how the principle of retaliation can degenerate into cycles of revenge that leave all parties worse off and can jeopardise the safety of innocents. This is especially the case if the injustice is only perceived, and the response borders on excessive. The other party, feeling similarly aggrieved, may retaliate in similar measure, resulting in both sides spiralling into ceaseless cycles of senseless, unproductive conflict. Often, the cycles of revenge blur the moral lines between both sides and may lead to atrocities perpetuated on each other and on innocents, regarded sometimes conveniently as collateral damage. Nowhere is this more evident than in the Arab-Israeli conflict, where two perceived wrongs - centuries of mistreatment by foreign powers of the Jews, which forced them to abandon their homeland, and the forced eviction of Palestinians from their places of residence under the British mandate to create the Jewish state - have led to enduring conflict between Israel and the Arab world, resulting in many devastating terrorists attacks and military retaliation that have claimed countless lives. Hence, "an eye for an eye" can be counterproductive and detrimental to all due to the high risks of cycles of retaliation if improperly executed.

Secondly, such a principle can be ethically wrong due to the intention to inflict harm on another party. This can be best summed up in the proverb "two wrongs do not make a right". From the deontological perspective, most cogently argued by Immanuel Kant, one has a moral duty and obligation not to cause harm to others, and the subjecting of harm to oneself does not waive that right. As Karl Popper would add, the inflicting of violence in return, as the phrase "an eye for an eye" connotes, can often be driven by irrational desires for revenge not ethically justified, as it does not redress the underlying cause of the wrong. As such, angels of non-violence, such as Martin Luther King, have expressively advocated against retaliation despite being subjected to assassination attempts and unlawful detention, because they view any form of retaliation with intention to damage the other party as fundamentally unconscionable. Hence, those who subscribe to ethical deontology may oppose the maxim "an eye for an eye" as a principle for addressing injustice.

To synthesise, before a blanket adoption of the principle "an eye for an eye", it is always paramount to address the wider consequences and implications of such retaliation, and ponder if there are successful, alternative non-violent, non-retaliatory approaches that would yield more optimal results. This argument is underpinned by the realisation that in many cycles of revenge, at least one, if not both of the parties are acting irrationally. If a conciliatory solution can be found that avoids retaliation and can better the interests of the aggrieved party, then both sides should seek that solution not just to achieve win-win outcomes, but also to avoid the deontological prohibition against doing harm that some may hold. For this reason, non-violent leaders such as Mahatma Gandhi were so successful politically. By advocating dialogue, rather than retribution for centuries of colonial oppression, he was able to achieve a win-win solution of independence for India with its vital industries and infrastructure intact and even improved, as an endowment by the British. This was unlike in Algeria where the French colonial masters painstakingly ensured all electrical wiring was destroyed and removed as punishment for the brutal war for independence fought by the Algerians. Not only would such alternative solutions to retaliation achieve redress for the victims in terms of benefits accrued, it also averts all the moral or utilitarian pitfalls that revenge may engender, and hence must be sought over a blatant impulse to exact retaliation.

In conclusion, while retaliation or "an eye for an eye" can be employed in certain exceptional circumstances, parties must always take care to exercise it with discretion, restraints and enlightenment or as a last resort when an obdurate adversity steadfastly avoids dialogue or negotiation. Forsaking caution and unbridling our impulse for revenge may inevitably lead to deterioration of well-being for all, and should be avoided by everyone. As every circumstance is unique and every injustice dependent on the moral code, the circumstances and the context of the situation in which it occurs, only with careful application and consideration of the maxim "an eye for an eye" with circumspection and intellect can wrongs be adequately redressed, and in the eternal words of Martin Luther King, allow us to hew out of a mountain of despair a stone of hope". Perhaps, ironically, only when we apply the principle "an eye for an eye" sparingly can we achieve the maximum effect of draining the swamps of injustice and releasing the eternal wellsprings of hope and peace.

Marker's comments:

Well done! You obviously understood the question. You should have included a discussion on the death penalty – does it work? Or should we move away from such laws?

Essay 4 | Pang Thong Sheng Joseph | 14S03G

'Everyone should be involved.'
How practical is this approach in tackling environmental issues?

Throughout the ages, mankind has always relied heavily on the environment for survival. Be it for sustenance or for shelter, the environment has always been Man's lifeline of sorts, without which Man would certainly be unable to survive on this planet. However, Man's over-reliance on the environment has led to several undesirable environmental outcomes. It is a commonly held view that since everyone lives on this planet, the burden should be undertaken by everyone, or that everyone should be involved in tackling environmental issues. I agree that everyone can and should play their part in tackling environmental issues. However, it would be highly impractical to apply this view to all situations, given the limitations of each individual, making this approach viable only in certain situations.

It would be inaccurate to say that the mentality that everyone should have in tackling environmental issues is completely impractical. People can still carry out measures that tackle environmental issues, albeit on a smaller scale, which are within their means, and by extension, certainly practical. Simple things can be changed in our lives to help tackle environmental issues. Such things may seem to be insignificant at first, as they are viewed as isolated efforts. However, if repeatedly done over a long period of time by a group of people, the collective efforts of this group of individuals would lead to a significant change. For example, if every single member of the Singaporean public were to recycle a sheet of paper every day, in a year, the amount of paper recycled would be enough to amount to several acres of rainforest that would have been destroyed to satisfy the needs of our country. The act of recycling a single sheet of paper may seem insignificant on a micro scale, but the collective effort of many individuals produces the butterfly effect, which can kick start a series of events which can ultimately contribute to tackling environmental issues. Thus, it can be seen that small practical acts of environmental consciousness are manageable for the community at large – everyone is able to and should play their part, making this approach feasible.

However, this approach has a serious flaw that will burden attempts at tackling environmental issues. This view that everyone should be involved may be made somewhat impractical due to the very fact that it relies on whether everyone will want to be involved in protecting the environment. Sure, everyone has their part to play, whether they bother with doing so is another matter altogether. Often, people are just too self-centred to be bothered with measures that involve them going out of their way, even if such measures are within their means. If they see no immediate benefit to themselves in undertaking the task, no matter how small the task may be, it is likely that many would not bother with it. In Singapore, even though the government has made it such that recycling bins are commonplace, and recycling drives require no more out of an individual than to place what they wish to recycle in a plastic bag to leave outside the door, the recycle bins are still largely unused, and the recycling drives have seen abysmal participation rates. This situation is not just limited to individuals; it can also be seen from the actions of companies and countries. It is also impractical to have the view that everyone should be involved in tackling environmental issues, simply because such parties view such attempts as detrimental to their own goals, where

companies may have to reduce profits or go out of their way to resolve issues such as pollution and carbon emissions, and countries may have to sacrifice their economic growth. Hence, it is impractical to believe that everyone should be involved as it could be one thing to agree that the burden falls on everyone's shoulders and another thing altogether to rely on this mindset when tackling environmental issues.

It needs to be noted that even those who acknowledge that everyone has a part to play in tackling environmental issues and want to do so are often times unable to do so or simply lack the power to do so. A large majority of people that make up the 'everyone' the question mentions are just mere civilians. Even though they possess great collective power, it still does not suffice to be able to tackle certain environmental issues. An example of this would be the British Petroleum oil spill off the Gulf of Mexico, which posed a great environmental problem, polluting the area around the spill and harming the ecosystem as a result. Though it is acknowledged that the onus is on everyone to tackle environmental issues, it is simply impractical and unfeasible in this situation where 'everyone' would not have been able to do much about the situation at all. It would be a challenge for everyone to be included in the clean-up during the aftermath of the event. How would it be possible for the whole human population to take part in sieving the oil out of the sea? Not very possible, it may seem. The approach where everyone should be involved would hence be inapplicable and impractical for the simple reason that many simply do not have the power to effect such change, and involving too many people would be the case where 'too many cooks spoil the broth' possibly causing more harm than good in the long run. Thus, it is impractical to view this approach when tackling environmental issues on a large scale.

Despite the majority of the population being unable to do much in the case of such large scale damage, there exist several groups of people who can effect the changes necessary to tackle such environmental issues. Hence, it would be practical to say that everyone, including the governing bodies of nations, should be involved in tackling environmental issues as they hold the power to do so. The government holds power over the judicial and legislative systems and is able to set down laws to prevent groups of people from creating environmental problems, effectively nipping the issue in the bud. Governments have imposed heavy fines on companies that dump toxic chemicals into water bodies. Japan has restricted the amount of fish that a fisherman can catch, in a bid to stem the problem of overfishing and its damage to the environment. Countries all over the world have signed the Kyoto protocol, which caps the carbon emissions of each country, in a bid to reduce global carbon emissions and reduce the rate at which global warming occurs. Hence, it can be said to a smaller extent that the idea that everyone should be involved is somewhat practical in tackling environmental issues, as the government is able to effect changes that the rest of the people - that is, 'everyone' - are unable to accomplish.

To conclude, though I agree that everyone should be involved in the tackling of environmental issues, I also acknowledge that it is ridiculous to expect everyone to be able to or even want to do so in the first place. Hence, I feel that this approach will be largely impractical when it comes to tackling environmental issues, as the steadfast reliance on everybody, be it those who are willing or unwilling or those who are able or unable to, would be too unreliable to effect actual changes to tackle environmental issues.

Marker's comments:

This is a generally thoughtful response, though it would have been good if more time had been spent explaining the constraints faced by different groups of countries in tackling environmental issues and providing objective data instead of subjective observations (e.g. Singaporeans' recycling habits). You should also have considered the ways that people can become involved. Besides helping out directly in such issues, individuals can also donate money or help out with campaigns to raise awareness of such issues.

Essay 5 | Wong Wen Jun Lawrence | 14S03O

'How important is it for us to recognise and celebrate our heroes?'

Every year, when we go to the cinemas, we are often greeted with walls plastered by movie titles involving a hero. The classic 'hero and villain' plot, though overused at times, seems to reflect society's fervent desire for hope. This often gets expressed in the form of heroes. Probing deeper, one could ask if this is merely an avenue for us to feel good about humanity or does it provide something more? I believe that it is very important for us to recognise and celebrate our heroes.

Some may treat the topic of heroes with much cynicism. Recognising and celebrating heroes may be perceived as living in the past. Subconsciously, it reinforces conformity and imposes upon us the 'ideals' which we should follow. Looking at the political arena, we can see many leaders who try to draw lessons and find inspiration from past leaders who have been regarded as heroes. While Ghandi and Nelson Mandela were indeed heroic and exemplified the fortitude of mankind as they strove against oppression, the world has changed and their relevance may be in question. Practical issues such as healthcare and education are more pressing today. In such cases, it is less important to be a visionary and harp on heroes of the past, so as to draw strength and highlight a common identity. Instead, such societies probably need technocrats who can enable efficient change. This not only applies to people in the political scene, but extends to the people, who at times need to be less caught up with their heroes.

Additionally, some may challenge the importance of celebrating such heroes. They believe that such heroes are formed from mere acts. Given the circumstances, background and a little luck, they feel that anyone could have done the same thing. On many occasions, sceptics also try to downplay on others' deeds by claiming that it was only right to do so, hence, there is no need to recognise and celebrate something which all of us should be doing. When the Huang River flooded due to an unexpected monsoon event of high propensity, Chinese soldiers rushed in to help the victims in inundated areas. As the levees failed, some of the soldiers even tried to build a human barricade so as to ease the discharge of water onto the inner city areas. Such acts of bravery are certainly heroic as they put their life on the line, so as to savethe lives of others. However, some critics said that it was part of their job to protect the citizens. Furthermore, they argued that celebrating such efforts is unnecessary and may, in fact, promote crisis mismanagement. As such, it can be deduced that it is not important for us to recognise and celebrate our heroes as these are mere acts.

On the other hand, no matter how small the act is, so long as someone goes above and beyond the call of duty to better another's life, it deserves recognition and celebration. It is important for us to do so as it gives ordinary people like us something to look forward to. We all need a glimmer of hope at times to spur us on. It is essential in making us less cynical, as human beings who believe in the goodness of humanity. Given that we criticise more than we appreciate, by celebrating heroes, we are giving ourselves the chance to be touched by humanity and to be reborn. If we ourselves are unable to be convinced of the goodness of Man, life will simply become 'nasty, brutish and short', as Thomas Hobbes puts it. Just a few days ago, a New Zealand soldier who

was on vacation in Kenya helped save more than a hundred lives from the wrath of militant Somali group al-Shabaab, who struck the Westgate mall. He could have simply walked away, ensuring his own safety, but he did not. That courage is commendable and truly exemplifies the human spirit of helping one another. Celebration and recognition of such bravery is crucial to reinforce what mankind should stand for, and would inspire more individuals to do such good deeds.

As the cliché goes, heroes come in all shapes and sizes, so it is especially important for us to also recognise and celebrate unsung heroes. In the recent Batman movie, the main protagonist mentioned how he wanted to conceal his identity in the hope that the world will realise that anyone can be a hero, that it does not matter who is behind the mask. Indeed, we should not make the assumption that heroes are associated with bravery and big sacrifices. It could be the cleaner at the gate who helped you pick up your things or the elderly person who makes it a point to talk to you on your lonely journey home. To some, these are mere acts of kindness, but one cannot deny that they help make our lives better, even if you did not ask for it. That can be deemed as heroic. Just recently, during the 'haze season' in Singapore, where the pollution index soared, two local Singaporeans went around distributing N95 masks to the needy elderly. This is something which most Singaporeans have the capacity to do, but they were the only ones who did it. It is very important for us to recognise and celebrate such heroes as it will rekindle the warmth in society. More importantly, we need to make the effort to ensure that not only do the heroes get recognised, but the many others who supported him or her, enabling a hero to emerge are also acknowledged.

Undoubtedly, celebrating our heroes is important to us spiritually. It fulfils the fundamental capacity to show appreciation for others, which can pave the way for self-actualisation, as theorised by Maslow. While sceptics raise valid points on how there are more pressing issues to deal with or the undesirable implications of such recognition, these are often myopic views of the situation as the act in itself is an achievement which should not be downplayed. Moving forward, it may be a good thing if celebrating and recognising heroes become more important, as this may lead people to view such acts to be within the capacity of everyone and that everyone can indeed be a hero.

Marker's comments:

Well done! You answered the question with great ease. Sensible and mature! You could have included more areas of discussion – it would be interesting to explore if our definition of a hero is becoming irrelevant because of the rise of anti-heroes.

President Obama's second Inaugural Address used soaring language to reaffirm America's commitment to the dream of equality of opportunity: "We are true to our creed when a little girl born into the bleakest poverty knows that she has the same chance to succeed as anybody else, because she is an American: she is free, and she is equal, not just in the eyes of God but also in our own." The gap between aspiration and reality could hardly be wider. Today, the United States has less equality of opportunity than almost any other advanced industrial country. Study after study has exposed the myth that America is a land of opportunity. Perhaps a hundred years ago, America might have rightly claimed to have been the land of opportunity, or at least a land where there was more opportunity than elsewhere. But not for at least a quarter of a century.

It is not that social mobility is impossible, but that the upwardly mobile American is becoming a statistical oddity. According to research from the Brookings Institution, only 58 percent of Americans born into the bottom fifth of income earners move out of that category, and just 6 percent born into the bottom fifth move into the top. Economic mobility in the United States is lower than in most of Europe and lower than in all of Scandinavia.
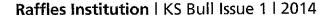
Another way of looking at equality of opportunity is to ask to what extent the life chances of a child are dependent on the education and income of his parents. Is it just as likely that a child of poor or poorly educated parents gets a good education and rises to the middle class as someone born to middle-class parents with college degrees? Even in a more egalitarian society, the answer would be no. But the life prospects of an American are more dependent on the income and education of his parents than in almost any other advanced country for which there is data.

How do we explain this? Some of it has to do with persistent discrimination. Latinos and African-Americans still get paid less than whites, and women still get paid less than men, even though they recently surpassed men in the number of advanced degrees they obtain. Though gender disparities in the workplace are less than they once were, there is still a glass ceiling: women are sorely underrepresented in top corporate positions and constitute a minuscule fraction of C.E.O.'s.

Discrimination, however, is only a small part of the picture. Probably the most important reason for lack of equality of opportunity is education: both its quantity and quality. After World War II, Europe made a major effort to democratise its education systems. We did, too, with the G.I. Bill[1] , which extended higher education to Americans across the economic spectrum.

But then we changed, in several ways. While racial segregation decreased, economic segregation increased. After 1980, the poor grew poorer, the middle stagnated, and the top did better and better. Disparities widened between those living in poor localities and those living in rich suburbs – or rich enough to send their children to private

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[1]The G.I. Bill was a U.S. law that provided a range of benefits for returning World War II veterans.

schools. A result was a widening gap in educational performance – the achievement gap between rich and poor children was greater than for those born 25 years earlier.

Unless current trends in education are reversed, the situation is likely to get even worse. In some cases it seems as if policy has actually been designed to reduce opportunity: government support for many state schools has been steadily gutted over the last few decades – and especially in the last few years. Meanwhile, students are crushed by giant student loan debts that are almost impossible to discharge, even in bankruptcy. This is happening at the same time that a college education is more important than ever for getting a good job.

Young people from families of modest means face a Catch-22: without a college education, they are condemned to a life of poor prospects; with a college education, they may be condemned to a lifetime of living at the brink. And increasingly even a college degree is not enough; one needs either a graduate degree or a series of (often unpaid) internships. Those at the top have the connections and social capital to get those opportunities. Those in the middle and bottom do not. The point is that no one makes it on his or her own. And those at the top get more help from their families than do those lower down on the ladder. Government should help to level the playing field.

Americans are coming to realise that their cherished narrative of social and economic mobility is a myth. Grand deceptions of this magnitude are hard to maintain for long – and the country has already been through a couple of decades of self-deception. Without substantial policy changes, our self-image, and the image we project to the world, will diminish – and so will our economic standing and stability. Inequality of outcomes and inequality of opportunity reinforce each other – and contribute to economic weakness. We have an economic, and not only moral, interest in saving the American dream.

Policies that promote equality of opportunity must target the youngest Americans. First, we have to make sure that mothers are not exposed to environmental hazards and get adequate prenatal health care. Then, we have to reverse the damaging cutbacks to preschool education. We have to make sure that all children have adequate nutrition and health care – not only do we have to provide the resources, but if necessary, we have to incentivise parents, by coaching or training them or even rewarding them for being good caregivers. Giving more money to poor schools would also help. So would summer and extracurricular programmes that enrich low-income students' skills.

Finally, it is unconscionable that a rich country like the United States has made access to higher education so difficult for those at the bottom and middle. There are many alternative ways of providing universal access to higher education, from Australia's income-contingent loan programme to the near-free system of universities in Europe. A more educated population yields greater innovation, a robust economy and higher incomes – which mean a higher tax base. Those benefits are, of course, why we have long been committed to free public education through 12th grade . But while a 12th-grade[2] education might have sufficed a century ago, it does not today. Yet we have not adjusted our system to contemporary realities.

Adapted from "Equal Opportunity, Our National Myth" by Joseph Stiglitz (The New York Times, February 2013)

[2] *12th grade is equivalent to JC2 in Singapore.*

Paper 2   Lea Tan   14S06B

Application Question

Joseph Stiglitz discusses the problems faced by Americans who desire upward mobility in society and their government's need to address these problems. Evaluate the issues that you find pertinent in your society and discuss the efforts made by your government to address these issues. You must refer to ideas in the passage.

The issues raised in Stiglitz's exposition are problems faced by any society with a pronounced income gap and rigidity in social mobility and Singapore is none the exception. Especially germane are the issues relating to education, particularly in Singapore's meritocratic society.

Stiglitz raises the issue of affording extra-curricular activities and learning outside of school as one of the key reasons as to why there is a disparity in education, which makes the rich richer and leaves poor struggling. Meritocracy, in its most idealistic form, promises an equal shot at the stars for allbased on intelligence and hard work. While it is true in theory, it is rare to see those froma lower class emerging tops in the Singaporean educational system. It is an undeniable fact that the rich are in a better position to send their children to extra-curricular lessons like the "music lessons and summer camps" Stiglitz mentions, and especially tuition outside of school that serves as advanced teaching and home revision for students. As such, the poor are handicapped in Singapore as well when it comes to accessing higher education, with the top-echelon universities looking for the all-rounded student with not only stellar academic performance but also various other talents to further recommend themselves. The annual intake of the coveted medicine faculty of the National University of Singapore is dominated by students from illustrious family backgrounds, with a number being sons and daughters of doctors, lawyers and bankers. The poor are further bogged down by having to support themselves with part-time work, doing housework and babysitting younger siblings. They do not have the time or means to enrich their university applications in a culture where, like the USA, a college degree is considered one of the most essential prerequisites of success and future wealth. It is evident that social mobility is greatly hindered.

Stiglitz points out another pertinent burden on students from lower-and middle-income groups in America: the decreasing financial support from the government for public schooling and the "crushing" weight of "giant student loan debts", which hinders academic progress and education of these disadvantaged students. In Singapore, the government has made it a main goal to reduce the possibility of a similar outcome, with five hundred million dollars invested into the vocational-training Institute of Technical Education (ITE) and numerous financial assistance schemes given to all schools to cushion their students in times of hardship. Stiglitz's argument cannot, in this case, be fully applied to Singapore. Effective government strategies have seen the development of many a "poorer" student, but the author's point is still insightful in illustrating how the disadvantage of lacking financial means greatly stymies social mobility. It is no rare occurrence to see sixteen-year-old students dropping out of school due to financial troubles, despite all the various schemes, while the better-off are awarded scholarships and monetary awards. The efforts to "level the playing

field" in Singapore, while admirable and more effective than those in the United States, still have room for improvement.

All in all, Stiglitz's passage raises relevant issues and gives one valuable insight into the factors behind social immobility in terms of education, and can be pertinently applied in assessing the situation in Singapore. While the Singaporean circumstances are not as bleak, it is clear that social immobility is almost inevitable with each society's pursuit of excellence, yet it remains an issue to be remedied.

Marker's comments:

Instead of making assertions like "It is an undeniable fact that..." or "It is no rare occurrence...", it would have been better if you had fully explained the logic of your argument to make your point of view clearer. Still, overall, this was a balanced and mature evaluation of the Singapore context.

Essay 6 — Lee Jia Le — 13S03Q

Is the pursuit of nuclear technology still desirable in today's society?

The meltdown of the Fukushima Daiichi Nuclear Power Plant in 2011 sent shockwaves around the world, and cast major doubts on the feasibility of nuclear energy in our world today. Yet, as our fossil fuel reserves continue to deplete and our carbon emissions continue to increase at an alarming rate, the pursuit of nuclear technology can be a potential solution to the energy crisis we are set to face in the next half of the decade. However, as our world changes and new alternative energy is being developed, the risks of relying on nuclear energy and nuclear technology may not be worth the benefits they bring. The increasingly volatile landscape has also brought about another danger associated with nuclear technology – the development of nuclear weapons, which would surely threaten security in the world. Therefore, the pursuit of nuclear technology in today's society is far from desirable.

The pursuit of nuclear technology can be important in meeting our energy needs due to the continuous depletion of our current energy resources. Today, fossil fuel is still the number one source of energy, accounting for most of our energy production which powers our economies and our homes. However, coal and oil are non-renewable resources which take millions of years to be replenished. Moreover, with the ever-increasing population in the world today (our population grows at an astonishing rate of 10,000 an hour), the demand for energy is large and will only increase in the future. Hence, nuclear energy can be utilised as an alternative energy source to meet our increasing energy demands. Nuclear energy, as of now, is still a rather untapped energy resource. Its high power efficiency and reliability have led to its desirability. Several countries are already starting to depend more on nuclear energy and less on the burning of fossil fuels. For instance, nuclear energy accounts for a massive 80% of France's energy production. As fossil fuels continue to be depleted at an exponential rate, countries do have a reason to pursue nuclear technology.

The pursuit of nuclear technology may also be more desirable as it can serve to cut down on our carbon emissions due to the non-polluting nature of nuclear energy. At the turn of the century, carbon emissions have shot up to dangerous levels that can hurt our development. The release of greenhouse gases like carbon dioxide into the atmosphere during the burning of fossil fuels has led to an increase in global temperatures, contributing significantly to the phenomenon of global warming. This year, NASA released reports linking extreme weather events such as Hurricane Katrina and Rita to climate change. Continue on our current course and we are set to encounter more frequent environmental catastrophes. This underlines the urgency to reduce our carbon emissions, and the usage of nuclear energy as an alternative can help us achieve this aim, as the process of harvesting nuclear energy does not involve combustion and the production of greenhouse gases. Hence, considering the current environmental challenges, the pursuit of nuclear energy is even more desirable.

However, the risks associated with nuclear technology in cases of nuclear power plant failures have led to nuclear technology being undesirable in today's society. The

production of huge amounts of energy may be a plus point of nuclear technology, but at the same time, it heightens the risk of plant failure and radiation leakage. The 1986 Chernobyl disaster in Ukraine is a reminder of the threat of nuclear energy as its insidious effects are still evident today. In 2006, the International Physicians for the Prevention of Nuclear Warfare released reports linking both deformities and high infant mortality in the region to the disaster, and stating that hundreds of thousands of people who worked at the disaster site still suffer from radiation sickness. The long-term health impact of a nuclear power plant meltdown should be sufficient reason to rethink our pursuit of nuclear technology. In small countries like Singapore, the pursuit of nuclear technology is even less of an option as should such incidents occur, the whole country may be wiped off the map and the impact will be even more devastating.

Yet, some may argue that an increase in the safety of nuclear plants should decrease the risk of radiation leakage, and hence the pursuit of nuclear energy is still desirable. In many of the US nuclear plants today, the nuclear reactors are sealed inside concrete chambers up to four feet thick, and measures such as automated shutdown systems of the reactors have been implemented. Moreover, some may cite the fact that nuclear power plant failures are rare – only three of such incidents have occurred, namely the 1986 Chernobyl disaster, the 1979 partial meltdown of the Three Mile Island reactor in Pennsylvania, and the most recent 2011 Fukushima Daiichi power plant disaster. However, one must consider the gravity of such events and the fact that there is no hundred-percent prevention against such incidents, like the case of the Fukushima Daiichi plant failure, where the trigger was an unpredictable earthquake. Hence, it is still undesirable to pursue nuclear technology.

In addition, the pursuit of nuclear technology is undesirable as it can lead to the surreptitious development of nuclear weapons. The world today is becoming increasingly volatile – the shortage of water, food and energy resources can very easily ignite a swathe of violence across the world. As such, the pursuit of nuclear technology to engage in nuclear warfare can become increasingly widespread. The recent nuclear threats against the US made by North Korea are an indication of how nuclear technology can be used for the wrong reasons. In World War II, the US became the first country to employ such nuclear technology in warfare, through the dropping of two atomic bombs on Hiroshima and Nagasaki. The impact was horrifying and to date, people in the region still suffer from radiation sickness and birth deformities. Indeed, the horrific destruction that can be wrought by nuclear warfare prompted Albert Einstein to famously declare, "I know not with what weapons World War III will be fought, but World War IV will be fought with sticks and stones." The pursuit of nuclear technology in this field is hence far from desirable as it opens the door to countries or extremist groups to exploit the technology for nuclear warfare.

All in all, the pursuit of nuclear technology is no longer desirable today due to the high risk of operating a nuclear power plant and the increasingly conflict-prone state of the world which can fuel the development of nuclear weapons for nuclear warfare. Although it is not completely undesirable to pursue nuclear technology due to the potential benefits it can bring in countering climate change and solving our energy crisis, other forms of alternative energy which do not pose as much of a risk to our safety are more desirable options. As we continue to develop new forms of

technology such as solar energy, wind energy and hydroelectric power to make them more efficient and reliable energy resources and increase efforts in environmental protection, the incentive to pursue nuclear technology will only decrease.

Marker's comments:

This essay is a very competent piece that has fully relevant and well-substantiated arguments as well as a good attempt at balance. Keep it up!

Essay 7   Tan Jia Liang   13S06B

Is the pursuit of nuclear technology still desirable in today's society?

Nuclear energy first unveiled its might and destructive capacity to the world during World War II, when "Little Boy" and "Fat Man" claimed hundreds of thousands of lives in Hiroshima and Nagasaki and forced Japan to surrender to the Allies. The Manhattan Project has sparked off the pursuit of nuclear technology globally ever since, in terms of both nuclear weapons and nuclear energy. However, history and current events have constantly shown how the pursuit of nuclear technology has never been desirable or is no longer desirable in today's society. While this may be true of nuclear technology as a weapon of destruction, it may not be totally applicable to nuclear technology as a means to meet our energy demands.

The pursuit of nuclear technology as a tool of war and destruction was probably perceived to be desirable by certain countries in its innate function as a form of deterrence against external threats. Indeed, given the sovereignty and freedom of every country to make its own decisions, the pursuit of nuclear technology for the interests of the nation and its people seems justifiable. Similar to the development of other forms of military capabilities and technology, the pursuit of nuclear technology as a weapon serves to enhance the military might of a nation and safeguard its people from external threats of war or violence. Its effectiveness as a tool of deterrence is further put forward by the theory of Mutually Assured Destruction (MAD). Given that two countries have nuclear weapons and missiles which can be easily fired upon each other and given the massive destructive capacity of the weapons, both countries are forced to think twice before going to war. At the same time, it also prevents the unnecessary sacrifice of innocent lives and the destruction of economies and livelihoods which all wars threaten and eventually cause. This was demonstrated in the Cuban Missile Crisis, where the game of brinksmanship between nuclear giants United States and the former Soviet Union eventually ended without the loss of lives. As such, deterrence has been constantly used as a justification by nations such as Iran, Iraq and Pakistan in their pursuit of nuclear technology as a weapon, which is seemingly desirable to these nations and the prevention of unnecessary wars and violence in the world.

However, globalisation, the enhanced interconnectedness of the world in political, economic and societal aspects and various diversifying trends have moulded and shaped a new world, which is inherently different from the past. To hold on to the view that nuclear technology is desirable to the world due to its effectiveness as a form of deterrence and prevention of war is definitely parochial and myopic. The rise of international governance and the formation of an ever more global society have resulted in more effective and diplomatic ways of national defence than the stockpiling of nuclear weapons. Agreements and treaties to protect peace and place controls on the proliferation of nuclear arms have been signed by many nations and supranational organisations such as the United Nations have been established to achieve global peace and the prevention of war. Given the nuances and complexities of politics in today's society, a war waged between two countries is no longer just confined to them for they threaten world peace and stability, which can lead to intervention by

other countries. The pursuit of nuclear technology for warfare is hence an increasingly outmoded, isolationist notion.

The truth is, given the complexity of today's society, the pursuit of nuclear technology threatens world peace more than it does to safeguard it. Rogue nations such as North Korea have repeatedly ignored international condemnation and opposition against their nuclear developments. Instead of bringing world peace, the misuse and abuse of nuclear arms by rogue nations such as North Korea to showcase their military capabilities and pursue nationalistic goals have threatened it. Their actions have the capability to spark off a nuclear arms race not merely in Asia but globally, heightening tensions and raising suspicion between countries. This has already been reflected by growing cries for nuclear technology by countries such as Pakistan and India. And when matters are not handled with careful consideration, they get blown out of proportion. The threat of nuclear warfare is hence real and uncalled for, making the pursuit of nuclear weapons undesirable in today's society due to its capabilities in threatening world peace and stability.

The issue of the misuse of nuclear technology not just by governments, but also by terrorist groups also further underscores the undesirability of nuclear technology in today's society. This is due to the growing might and influence of terrorist and radical religious groups in today's society, which is inherently different from the past. The pervasiveness of new media like the Internet has allowed terrorist groups such as Al-Qaeda to spread their influence and communicate effectively. In fact, the recent jail breaking of one of Pakistan's most notorious prisons by the Taliban which led to the escape of hundreds of convicts, and in which the Al-Qaeda was suspected to be involved, reflects the growing capacity of these terrorist groups. As such, there is no guarantee that nuclear plants would not be infiltrated and when they are, the consequences are definitely pernicious and deadly. The potential of nuclear weapons being misused when they fall into the wrong hands is a sobering reality, and one with such explosive repercussions that renders the pursuit of nuclear technology undesirable.

Is this then the same conclusion for nuclear technology as an energy source? The Chernobyl Accident, Three Mile Island accident and the recent Fukushima disaster warn against the pursuit of nuclear technology even as an energy source due to its huge destructive capacity and long-term implications and repercussions. The nuclear explosion at Chernobyl itself has not only claimed thousands of lives, but has also rendered the area uninhabitable for decades up till now due to the residual radiation. The long-term implications of mutations have also demonstrated the destructive capacity of nuclear technology. The Fukushima disaster has also led to radiation pollution of the rivers and seas, which has a regional impact on Japan's neighbours. Therefore, it seems that the pursuit of nuclear energy is still undesirable in today's society as we are still incapable of preventing nuclear disasters and accidents, especially when they are brought about by natural forces which are unpredictable, as demonstrated in the Fukushima disaster.

It is, however, unfair to pass the verdict that the sole cause of nuclear disasters is the wrath of nature. Probing deeper, one must understand that the nuclear accident in Fukushima was also about a lack of technological knowledge, neglect by scientists and corruption and cosy ties between TEPCO, the power company, and the government, which led to lapses in safety checks. Such errors can be easily rectified and examples

of success are aplenty. France and Germany have fully demonstrated the possibility of pursuing nuclear energy, which contributes significantly to their energy demands. Moreover, the pursuit of nuclear energy is still desirable in today's society as we are facing the threat of depletion of limited resources such as fossil fuels and natural gases. Nuclear energy provides a renewable and sustainable alternative and distinguishes itself from other choices such as solar and wind energy, it being more reliable. Given that nuclear disasters can be prevented and given the growing energy demands of today's society, the pursuit of nuclear technology as a source of energy is still desirable and should be welcomed.

In conclusion, the pursuit of nuclear technology as a weapon is undesirable in today's world while the opposite can be said for its usefulness as a renewable energy source. Its advancement as a weapon should be halted to protect peace.

Marker's comments:

A nuanced and well-informed response that does explore the implications of the word "still". Good effort.

Essay 8 Rae-Ann Tan 13S03H

'Qualified but not enlightened.'
Is this a fair description of educated people today?

In a famous Hindi movie "3 Idiots", the most famous line tells us to "chase excellence, and success will follow". In our world today, however, it is rapidly becoming the trend that people chase after success over everything else. This has led to a world where educated people have a never-ending list of honours and qualifications, but are not necessarily aware of the world and reality around them, much less know or want to use their skills for the betterment of society. While there are some people who are enlightened and want to use their education to help the world around them, there still exists a majority of educated people today who are self-centred and have not yet opened their eyes to the reality we exist in.

That being said, it is not completely fair to over-generalise that all educated people are qualified but blind as to how to use their education to benefit others. Education does still act as a catalyst for some people to help others around them with the knowledge they have attained. As people undergo schooling and learn about various subjects, their understanding of these subjects in relation to the world around them grows as well. In class, students are often encouraged to apply what they have learnt to what they observe in society, and this helps some students to translate theory into reality. Take, for example, Nobel Prize winner Dr Muhammad Yunus, who initiated the concept of microfinance in order to help those who are unable to afford bank loans in less developed countries to be self-sufficient. It is only through his deep understanding of economics and business as well as observation of his society that he was able to create a revolutionary idea that has helped thousands of the poor. Clearly, asserting that educated people are merely qualified but not enlightened is too harsh a view, as there are instances of well-qualified and well-educated people who are indeed enlightened about the needs of the world around them and strive to improve the lives of others.

Education can even enable people to reach greater levels of understanding about the world. Through education, students are exposed to global affairs and made to analyse issues – a higher-order thinking skill – with regard to their own society. Problem-solving skills come into play as there are times when students have to think of possible solutions to international and trans-disciplinary situations. The right kind of education helps people to attain greater awareness and desire to improve the world. For example, the new programme being tried out in Scandinavia, called the "Design To Improve Life" education programme, aims to encourage both teachers and students to think of new and sustainable solutions to global problems the world currently faces. Thus, we can see that the view that educated people, or students undergoing education, are merely qualified but unenlightened is a mistaken one, as they are in fact aware of global issues and possess the right skills to address them.

However, while it may be true that there are educated people in our society who have the heart and motivation to use what they have to help others, these remain only a handful. As for the majority of educated person in today's world, attaining higher levels of qualifications in order to be successful still seems to be the ultimate goal, even if at the expense of other values. Indeed, at the other end of the spectrum from the examples given above, there are educated people who use their knowledge

and intelligence for undesirable things. Over the past few years, it would appear that there have been more and more cases of criminal breach of trust by executives of big companies, or extramarital affairs by politicians or CEOs of organisations. For example, the former head of the National Kidney Foundation (NKF) was caught misusing money obtained from donations, and a Buddhist monk who ran the Ren Ci Hospital misappropriated the charity's funds. More recently, two cases of extramarital affairs involving Singapore Members of Parliament also surfaced. All these cases involved people who are well educated and should have known better. Often these people are well-aware of their actions, but it is exactly their intelligence, possibly from their high levels of education, that misled them into thinking that they were clever enough to get away with it. How can we say that educated people are necessarily enlightened, when it appears to be the exact opposite, judging from their irresponsible actions? These cases clearly show that while the educated may be qualified, their attitude to represent the best of society may well fall short of their level of learning.

Perhaps this stems from society's overvaluation of success, leading to a paper chase for qualification but not necessarily enlightenment. As many countries aim to become more affluent, they tend to focus on attaining material success first at the expense of other goals. Admittedly, having a high-paying job or material success is of importance, but a skewed view on its importance can be problematic, especially if it causes people to forget that there may be other things that are more important beyond our own desire for material comforts. Indeed, in his 2013 National Day Rally speech, Singapore's Prime Minister Lee Hsien Loong emphasised the importance of having a quality education that does not over emphasise academic results. He recognised that the Singaporean mindset tends to be one that places academic achievement before other skills or knowledge, and that there is a need to prevent the problem of having a generation of people who are overly qualified but who lack empathy and compassion – two qualities which spring from a truly enlightened perspective.

In conclusion, as a witty phrase aptly puts it, "Don't let schooling interfere with your education". Educated people today may have a blinkered worldview that places so much emphasis on personal success in school and the workplace such that they may not see the need to use their education and skills to aid others. From now on, we should progress towards an education system that does not solely emphasise academic achievement, but also promotes empathy, interpersonal skills and problem-solving skills. Such an education can help to nurture a generation of educated people who will use what they know to improve their societies. To this end, perhaps in the future we will see a paradigm shift, as educators recognise the need for genuine learning instead of simply academic excellence. Educated people in the past have used their knowledge to help others pave the way for such action, showing that it is possible for one to be both qualified and enlightened.

Markers' comments:

On the whole, an excellent piece on a challenging question. You have an accurate grasp of the demands of the question and have a good range of relevant and balanced arguments. Some of your arguments, though, could do with stronger examples (e.g. paragraph 4 contains only Singapore examples, when you could have also referred to, say, the educated but unscrupulous high-level executives behind the 2008 US financial crisis).

Essay 9   Chan Kai Yan   13A01A

To what extent has the political climate in your society changed for the better?

Singapore's political scene could be said to have undergone radical changes since the watershed general election held in 2011, when the opposition won a record six seats in Parliament. This may have marked a change for the better in Singapore's political climate towards a more democratic one, with greater protection of liberties as well as for the accommodation and expression of minority views. This has been seen in a greater ability to express opposition to government policies, a greater freedom to discuss and challenge what was previously taboo, and a greater willingness by the government to tolerate the people's views. One may argue that such changes may even outweigh the negative changes to Singapore's political climate, which include a greater politicisation of almost all issues.

Some may argue that Singapore's political climate has not changed for the better given the increased politicisation of many issues, including seemingly trivial issues. This has meant that precious time was spent focusing national attention on such issues instead of discussing other more pertinent issues. A case in point would be the uproar over the failure of the opposition-run Aljunied-Hougang-Punggol East Town Council (AHPETC) to clean the ceilings of two hawker centres under their charge, as they were mandated to under law. Such a seemingly trivial matter was soon escalated into a matter of political accountability and integrity, and valuable time in Parliament was spent debating the issue. Eventually, even the Prime Minister weighed in on the management of AHPETC, even though the matter "could have been resolved with a phone call", in the words of Workers' Party's (WP) Member of Parliament (MP) and AHPETC town councillor Pritam Singh. Thus, it could be said that the increased politicisation of many issues, including the seemingly unimportant, does not mark a change for the better in Singapore's political climate. This is especially so given the amount of time spent discussing issues such as AHPETC in Parliament compared to the mere five days spent debating the Population White Paper, which is of greater significance to Singapore's population policy and future planning.

Furthermore, it could be argued that Singapore's political climate has not changed for the better given the government's continued intransigence on issues despite Singaporeans' demonstrating their opposition to the government's views. This can be exemplified by the issue of the Population White Paper, which was announced in January 2013. Despite the concerns raised by Singaporeans over the likelihood of a population of 6.9 million in Singapore, as it was used as a planning parameter, the White Paper was still adopted by a vote of 77 to 13 in the People's Action Party (PAP)-dominated Parliament. This was despite the reservations raised by Singaporeans on the Internet and through a rare protest, attended by thousands, at Hong Lim Park against the White Paper. In another instance, the Media Development Authority has pressed on with new regulations on websites that report on Singapore and have at least fifty thousand unique viewers per month, despite a protest by about a hundred websites in Singapore, who shut down their websites for 24 hours to protest against these new regulations, which are viewed as an extreme form of censorship. Thus, one may argue that the political climate in Singapore has not changed for the better, given

that the government continues to press ahead with its own agenda and viewpoints on certain issues, even though the public has demonstrated its disagreements with the government over such issues. As seen through these examples, the government has yet to accommodate such opposing viewpoints.

However, one may argue that Singapore's political climate has been positively changed given that there is now a greater ability by Singaporeans to express their opposition to government policies, both inside and outside of Parliament. The strengthening of the opposition in Parliament has meant the Opposition is now better able to question the government's policies in Parliament than ever before. Indeed, the number of questions raised by Opposition MPs in Parliament has already increased, given the expansion of the Opposition's ranks, and there have been lively debates over issues such as the Population White Paper in Parliament. Outside of Parliament, there has been a proliferation of websites – such as The Online Citizen, Yawning Bread, and TR Emeritus – that allow Singaporeans to air their views on government policies. This would not have been possible in the days without the Internet, which is relatively free of government control, unlike the mainstream media, which were government mouthpieces tacitly controlled under the Newspapers and Printing Presses Act. Even the mainstream media, such as The Straits Times, has improved on its coverage of viewpoints opposed to the government and has provided a fairer debate on national issues, such as during the 2011 General Election. Such changes further demonstrate that there are opportunities for Singaporeans to debate government policies and express viewpoints contrary to those of the government, which marks a change in the political climate for the better, given that the accommodation of minority or opposing viewpoints is an important facet of being a democracy, which Singapore claims to be.

Furthermore, it can be argued that given the greater freedom to discuss and challenge what was previously taboo in Singapore today, the political climate has indeed changed for the better. Issues that were formerly unquestioned in Singapore have been formally challenged in Singapore's courts in recent years. Most notably, a homosexual couple has challenged the legality of Section 377A of the Penal Code, which forbids homosexual acts between men, in the courts. Similarly, a part-time cleaner, Vellama Marie Muthu, challenged the Prime Minister's unfettered discretion over the calling of a by-election under the Parliamentary Elections Act. These were previously issues that one would scarcely have imagined finding its way into court, especially the case on homosexuality, which remains a largely undiscussed issue in Singaporean politics. Thus, one could argue that such greater desire to discuss issues that were previously taboo in Singapore represents a change for the better in Singapore's political climate, as it represents an increased ability to express minority views, which is another important aspect of a democracy.

Additionally, Singapore's political climate may have changed for the better given the government's increased willingness to accept the views of the people on some political issues. Even though the government has not always been receptive on some issues, as discussed earlier, the government has accepted public views on other issues, especially those raised during the Our Singapore Conversation (OSC), which was an initiative convened by the government in 2012. In response to concerns raised during the OSC over the excessive levels of stress faced by students and the heavy burden of providing for the healthcare of the young and the old, the Prime Minister announced important policy changes during his annual National Day Rally in 2013. These included adjustments to the Primary School Leaving Examination and extending MediShield

coverage beyond the age of 90 to make it universal, life coverage. Such policy changes reflect an increased willingness to accept and respond to the people's concerns over government policies by the government. This is a major contrast to the past, especially under strongman Prime Minister Lee Kuan Yew, who pursued unpopular policies as long as he believed that they were in the interest of Singapore. Thus, such increased receptiveness by the government reflects a positive change in the political climate of Singapore, given that it marks a step towards the government being "for the people and by the people", responsive to citizens' concerns and willing to address them.

In the final analysis, the political climate in Singapore has changed for the better to the extent that Singaporeans are now better able to debate and express their views, even if they are opposed to the government, on government policies and issues, even those that were previously taboo. The government has also been more willing to accept such views and tweak its policies in response, to the extent that this does not evolve into mere populist changes. Even though the government has not accepted all of such views, and the political climate may have become more adversarial with the politicisation of many issues, even the seemingly trivial, unlike before, the change in the political climate is still ultimately for the better, given that it marks Singapore's progress towards a more mature democracy that is more tolerant of minority views and protective of fundamental freedoms and liberties.

Marker's comments:

Clear, structured arguments supported by good knowledge of local context. There was an obvious attempt to stay close to the demands of the question which gave this essay a clear direction.

Essay 10 Chua Jun Yan 13A01A

To what extent has the political climate in your society changed for the better?

The 2011 General Election has been touted as a turning point in Singapore's history, with observers claiming that it heralded a "new normal" in the country's political landscape. However, the nature of this new political climate remains shrouded in uncertainty. While I agree that Singapore's political climate has evolved to become more participatory and consultative, I am also cognisant of the fact that this has sharpened the polarisation of society. Therefore, one should at best be cautiously optimistic that Singapore's political atmosphere has changed for the better.

In some sense, it might be argued that there has been an improvement in Singapore's political ethos because we are witnessing the rise of an increasingly active citizenry. This is crucial for any healthy democracy, because civil discourse ensures that pertinent issues can surface and be debated. Apart from the tangible effect of creating more responsive policies, there is also the intangible benefit of enriching the nation's civic life. Previously, Singaporeans have been criticised as being apathetic and uninvolved in issues of national concern. Change can be seen in the recently concluded "Our Singapore Conversation" (OSC), which attracted over 47 000 participants, with many dialogues being initiated from the ground up by community groups like NorthLight School and the Singapore Anti-Narcotics Association. The mass reach of this exercise is in stark contrast to precursors like the Feedback Unit in 1985, which was designed to cater to a primarily English-educated and vocal minority. Hence, we can conclude that Singapore's political climate has become less placid and more vibrant. Similarly, the liberalisation of the use of the Speakers' Corner has allowed Singaporeans to exercise their dormant constitutional right to "freedom of assembly" for a range of causes. The 2013 instalment of Pink Dot – a Lesbian, Gay, Bisexual and Transgender (LGBT) rights gathering – drew a record crowd of 21 000. As a consequence, there is reason to believe that Singapore's political climate has become more inclusive in the sense that there is greater latitude for individuals with a variety of beliefs to stand up for themselves.

Furthermore, one might assert that Singapore's political climate has changed for the better because the incumbent government has become more consultative and responsive to the populace in its style of rule. Following the loss of Aljunied Group Representation Constituency in 2011, the People's Action Party (PAP) has been faced with increased political competition in parliament. All else being equal, the economist in me tells me that competition is good because it forces a firm (in this case, a party) to better meet the needs of its "consumers". This electoral pressure has resulted in a slew of policy shifts in concord with the demands of the people. In 2012, the government announced a tightening of foreign labour inflows, as well as a new set of HDB cooling measures to make housing more affordable. At the recent National Day Rally, the Prime Minister indicated that MediShield will now provide universal coverage for Singaporeans, and that the Primary School Leaving Examination will be reviewed to reduce stress on students. The fact that the government is more attuned to the voices of the people, which, in the "democratic society" espoused by the Pledge, must surely represent a net improvement in the political climate. This is a far cry from the top-down and heavy-handed approach of the past, when former Minister Mentor

Lee Kuan Yew would tell voters to "repent" if they did not vote for the PAP, or sue Opposition politicians for libel. To the extent that we aspire towards the ideal of "power to the people", our political climate has changed for the better.

However, in many ways the political climate has changed for the worse because discourse has become increasingly toxic and vitriolic. More Singaporeans have become locked in "echo chambers" in which they only digest views which they already hold, partly because of the rise of new media. The outcome is a polarised society which is adversarial and unable to reach compromise and consensus on key issues. For instance, the recent haze crisis illustrated a crisis of confidence in state-society relations. Insidious rumours like the unsubstantiated assertion that the National Environment Agency had doctored pollution index figures spread like wildfire. A public health issue soon came to be a thoroughly politicised prism, thereby distracting the public from the real problem at hand. A parallel can be found in the parliamentary dispute between the PAP and Workers' Party over the sub-contacting of IT services and the cleaning of hawker centres. Both sides launched personal attacks to discredit and delegitimise the other, in an attempt to seek partisan rhetorical advantage. In other words, we are seeing the advent of the politics of cynicism where there is a lust for the blood of those who do not share your views. As such, the political climate has changed for the worse because it has divided Singaporeans.

Moreover, the political climate has also gone downhill in that there is a risk of populism inherent in a more consultative style of governance. The social compact in Singapore has always been based on performance legitimacy – in exchange for the delivery of economic goods, the public accepts unpopular decisions. This is justified on the basis of the narrative of Singaporean exceptionalism, which postulates that our strategic vulnerabilities require strong leadership. In the words of Lee Kuan Yew, in his latest book, "One Man's View of the World", "if Singapore gets a dumb government, we are done for." Unfortunately, the government has been unable to resist pandering to the people in this "new normal". For instance, the creation of new distinctions in benefits for citizens and Permanent Residents reeks of xenophobia. Indeed, the reduction in immigrant workers has already placed immense pressure on Small and Medium Enterprises, and raised the inflation rate to 4.6 percent in 2012. What is politically expedient is not always good for the nation. In this way, Singapore's political climate has changed for the worse because it has prevented the leadership from making politically difficult choices which are in the national interest.

We might also question if Singapore's political climate has changed that much at all. Significant continuities remain in terms of the PAP's monopoly of power. The Media Development Authority introduced new censorship laws for interest news sites with little attempt to seek feedback and Ministers have threatened socio-political sites like the TR Emeritus and Alex Au's blog with legal action. As the French would say, "The more things change, the more they stay the same." Moreover, to believe that developments in Singapore's political climate are unprecedented is to fall prey to historical chauvinism. The 1950s and 1960s were a time of vibrant multi-party democracy in Singapore, with many schools actively involved in student activism. In this sense, changes to Singapore's political climate might be viewed as a reversion to a previous era. It is certainly fallacious to think that things were done differently in the past. As such, the sanguine amongst us might believe that Singapore's political climate has neither changed for the better nor for the worse; in the grand historical scheme, it has not changed much at all.

In the final analysis, Singapore's "new normal" in politics is still very much a work in progress. Although there have been superficial, short-term positive changes in the political climate, there are also long-term latent risks and challenges. On the question of whether Singapore's political climate has changed for the better, one can only agree with Zhou En Lai that it is still "too early to tell."

Marker's comments:

Interesting angle and analysis of local issues. Balanced discussion with engaging style of writing.

Essay 11 | Leung Wai Kiet William | 13S06F

How important are memories?

After twelve years of formal classroom education, a few of my schoolmates and I had this wonderful idea of creating a time capsule. In it, we would store a few cherished class photographs and even a list of people whom we thought would be the first to get married. As we laughed and considered such an idea, I knew that there was an image that was forming in all of our minds. It was the image of us returning some ten years later, having all grown up, and finally reopening that time capsule to cherish all the good times and the unforgettable friends with tears and deep nostalgia. Memories are so important to us. In fact, beyond just bringing us great happiness, they teach us important life lessons. Certain memories also remind us to be thankful for where we are now. It is unfortunate, however, that not all memories are like that. Some memories are not worth keeping because they only bring emotional pain and can even hinder us from moving into a brighter future that is not constrained by our past. Hence, to the extent that memories do not burden us in such ways, I think that memories are definitely important.

Memories are valuable in that they can offer us a sense of happiness in the present using things that are in the past. With happiness comes an understanding of what really matters to a person and therefore how he should order his priorities. For instance, it is not uncommon to see office workers placing photographs of cherished occasions with their loved ones on their desks. These serve as a reminder that even though one may spend the bulk of each day working away from these people or these activities, they are the ones who truly matter in this life, not the work or the money. Hence, this drives them to persevere in their current course. Perhaps one of the most unforgettable examples of perseverance is the film, "Castaway". In the movie, the tragic protagonist who is the only survivor from a deadly plane crash braves three arduous years on a lonely island, constantly facing thoughts of suicide. The only thing that kept him going was a picture of his wife-to-be in a small locket. That memory of her would eventually see him through to his rescue in one piece.

Beyond happiness, memories can also serve to keep life's important lessons fresh in our minds. The human ability to forget is extraordinary. That is why mistakes are often repeated, much to our detriment, hence the quote, "Those who cannot remember the past are condemned to repeat it." Nonetheless, if a conscious effort is made to preserve such memories, the valuable lessons that they hold for humanity can continue to be an influential guiding force in our world today. When Nazi concentration camps were first discovered during the invasion by the Allied Forces of World War II, Eisenhower asked for pictures to be taken, so that, should anyone ever forget or even deny that such an atrocity ever occurred, they would have the evidence to refute him. Indeed, such memories of the dark war have served to show us, especially the younger generation who never experienced war to such an extent, of just how capable mankind is of tearing each other apart. It is such memories which have led to the establishment of global organisations such as the United Nations, in the hope that the world would never again plunge into a world war. So far, such efforts have proved largely successful in maintaining global peace, and in no way can memories of the World Wars be said to have played only a small role.

Furthermore, memories tell us to be thankful. Many of our successes were not crafted by our own hands, but by the hands of our forefathers. In teaching us to be thankful, memories not only help us to appreciate what those before us have done for us, honouring them in the process, but also not to take what good gifts we have been given for granted. Recently, in Singapore, a war memorial was vandalised, and the perpetrator was not merely condemned for damaging public property, he was also condemned for dishonouring the very people to whom the memorial was a tribute – people who had built our nation and, in part, made us what we are today. Apart from memorials, countries also take time during their national days not just to celebrate the bright future, but also to remember the arduous past, and the sweat and blood our forefathers have shed to bring us through it. Therefore, memories can be said to teach gratitude, so that we do not become arrogant or complacent in our apparent success, lest we destroy everything that our forefathers have worked to build.

As valuable as memories may seem, some memories, however, are too painful to be worth remembering. These memories do not bring us happiness, but extraordinary grief, not lessons, but sad longings for what once was. We would be much better off if we were able to forget these memories and move on. For instance, even though the Vietnam War ended more than a few decades ago, families continue to grieve and they struggle to rebuild their lives because the past is just so painful that they are paralysed in a state of unending grief. It may be insensitive of one to belittle their loss, but regardless of the gravity of the catastrophe, at some point, everyone must move on, or pain from these memories would only drag one down into further despair. In addition, on top of the grief and paralysis that memories can cause to people, memories can also hinder constructive action from taking place. This means that lives are prevented from being improved and societies are prevented from progressing. War atrocities that were committed more than half a century ago, and the animosity that strains their diplomatic ties in the present day, give rise to boycotts of Japanese goods and services and, on a larger level, military conflict over disputed islands. Such effects are in no way beneficial to either the Chinese or the Japanese. Both countries are unwilling to face their past, address their faults and move on. In that sense, memories can hinder us from moving forward to greater things and we should therefore be quick to discard some of them.

In conclusion, there is no doubt that memories are important to us. A significant portion of our memories are worth keeping as they will be of good use to us as we forge the future, but we need to deal with memories that may burden us unnecessarily. An amazing example of a society resolving to leave their memories aside for progress is Rwanda, where President Paul Kagame has implemented a "gacaca" public justice system that seeks to reintegrate perpetrators of the deadly Rwanda genocide. Members of the Rwandan community have been able to overcome the sorrow of their memories and rebuild their broken society. As long as we are able to deal with such troublesome memories in the same way that the Rwandans have, I would say that we can surely call memories important.

Marker's comments:

Your response provides very insightful yet commonsensical analysis that avoids pretentious language. Your mature ability to dissect specific aspects of the nature of memory to elucidate your points was a key feature of this essay.

Essay 12   Tan Heng Yeng   13A03A

How important are memories?

The ability to remember the past is one of the key elements distinguishing the thinking human being from the bovine animal. Being able to recall one's history gives one a precious sense of self-identity and belonging while animals cannot be said to possess this appreciation for its personal past. Yet memories can be impediments if the remembrance of past events is unpleasant. Memories are thus important only to the extent that they serve a positive purpose in the present day context, be it preserving a sense of personal identity and national identity, or ensuring national goals such as security.

Firstly, memories form the essence of one's identity. Who you are and what you are have been shaped by your previous personal experiences, and thus the key to understanding oneself lies in the treasure trove of memories stored in the brain. For example, the painful memory of losing a sports competition in one's earlier years can be the impetus for an athlete to excel at the Olympics. The importance of memory in preserving a sense of personal identity is seen in the novel "The Vow" by Nicholas Spark, in which the female protagonist loses her memory of the last few years of her life and wakes up a different person after a car crash. Her journey of rediscovering the person she was before the accident entails re-living the past few years of her life, and eventually the past repeats itself, letting her find herself once more. We also see the importance of memories in Oprah Winfrey's phenomenal success. One of the richest women in America, the talk show host attributes her success to her painful memories of sexual abuse and suffering as a young child. The memory of her own torment has shaped her into a mature, sympathetic and understanding lady, able to connect with her interviewees and produce cathartic and heart-rending interviews. Winfrey's ability to recall her past trials and tribulations allows her to use it for good in the present-day by relating to people who have suffered as she did, and fosters a deep empathy in her that makes her so beloved by America. Memories are thus crucial in the shaping of one's personal identity, serving to mould a person positively according to his remembrance of the past.

Apart from personal identity, memories remain pertinent in the fostering of a strong national identity. Much in the way that personal memories influence one's character, the collective memories of a nation serve to remind citizens of their shared past, and help to inform the way forward. Singapore as a young island nation in a geopolitically vulnerable location perhaps understands this imperative the best. The nation's leaders make a constant effort to keep alive the memory of Singapore's history, from social studies textbooks detailing the suffering of our ancestors during the Japanese occupation, to National Day Parades featuring Singaporean legends such as the founding of Singapore by Sang Nila Utama. This becomes ever more crucial in today's climate of rapid change, where the new generation of Singaporeans can no longer identify with their forebears and the struggles Singapore has gone through to enjoy its peace and prosperity today. The understanding of shared historical memories is a means for Singaporeans to connect with one another and engender a sense of belonging to our island home. More recently, ordinary citizens have been stepping up to protect and pass on the legacy of Singapore's memories, moving away from the

top-down doses of Singaporean history from the government. Royston Tan's short film, "Old Romances", keeps alive the memory of the country's older landmarks, from the recently demolished Tanjong Pagar railway to an old Teochew mooncake shop. It won critical acclaim and widespread positive response from Singaporeans, with many people contacting Tan to thank him for preserving precious local memories. Without doubt, the revisiting and sharing of Singapore's shared memories have been used as an essential tool in the forging of a solid and celebrated national identity. With the breakneck speed of change in Singapore, from demographics to the landscape, memories become ever more important in reminding citizens of their Singaporean heritage. As such, memories are vital in establishing and preserving national identity by creating a common ground of a shared history.

In addition to creating national identity, memories also serve the purpose of helping to achieve national goals, such as ensuring national security. America keeps alive the memory of the terrorist attacks on the World Trade Centre of September 11 every year, from common oratory services all over the country to keeping flags at half-mast. President Obama also leads the nation in a minute of silence for those who had lost their lives in the horrific event. Most recently, with the tenth anniversary of the attacks, a museum commemorating the heroes of the fateful day and documenting the details of the happenings has been constructed on Ground Zero. The United States of America is thus making a huge effort to preserve the memory of the tragedy, which acts as an annual reminder for Americans not to be complacent about national threats. By keeping the memory of September 11 alive, Americans are reminded of their vulnerability, and their need to stay vigilant, especially in the face of growing religious extremism and hostility to the West today. Memories are hence vital to safeguarding national interests by warning one of the recurrences of previous disasters, and helping a country to progress towards ideal standards of domestic safety and civilian vigilance.

However, it must be acknowledged that the perpetuation and preservation of memories is not always a good thing when they serve as an impediment to national development and social progress. In such a case, memories cannot be said to be important; in fact, they become detrimental to the owner of those memories. This is best illustrated with the example of China. China and Japan have long had an uncomfortable, or, at times, downright hostile relationship. The Chinese have suffered atrocities such as the Rape of Nanking during the Japanese military invasion in the past, and these atrocities are kept alive in Chinese textbooks, and written in passionate and emotive language that ignites patriotic fervour in its school children. The teaching of history to young generations of Chinese thus keeps alive the resentment towards their neighbouring Japanese for the horrors they inflicted upon Chinese forebears. While the need to remember the suffering of past generations is doubtless, one may question the necessity of perpetuating hostility towards the people of another nation for crimes their ancestors had committed decades ago. The historical and emotional baggage of China is a burdensome one, and seems to prevent present-day issues from being dealt with clearly. For example, the territorial dispute over the Diaoyu or Senkaku Islands has reached dangerously hostile levels, with the threat of military intervention looming. Third parties may question the validity of souring relations over such a tiny rock outcrop, yet the conflict stems from years of unhappy bilateral relations. In this case, it seems that China's keeping alive of the memory of Japanese cruelty has prevented both countries from moving towards economic prosperity and political peace. The inflammatory language of history textbooks keeps the flame of resentment alive, hindering both parties from moving on.

Perhaps if the Chinese were to place less importance on the memories of conflicts with Japan, Sino-Japanese relations would see a turn for the better. This can be seen in the case of Singapore, which deals with the Japanese Occupation very factually in its textbooks, in a detached and less passionate manner. The pragmatism and suppression of the memory of intense suffering under the Japanese during World War II has allowed the flourishing of diplomatic relations between the two nations, with massive trade and capital flows between the countries. Such a stance has benefitted Singapore greatly by the prioritising of the economic success of the present-day over the burden of remembering the past violations of Japanese aggressors. In this way, it seems that memory can serve to obstruct national development and the building of good bilateral ties by placing a disproportionate focus on the past.

In conclusion, memories are important to the extent that it serves a useful purpose in the context of the present day and bolsters national goals. This is seen in the importance of memories in forging personal and national identities, and acting as a reminder about past follies, for it is the past on which the present day is built. Yet, when the perpetuation of memories hinders modern progress, memories cannot be said to be important, and should then take a backseat in order to cultivate peace and prosperity in the present.

Marker's comments:

You have largely relevant, coherent and balanced arguments, with a good range of examples of both individual and collective memories.

Essay 13   Teo Hoong Chen   13A03A

'The problem of global food shortage can never be resolved.' Do you agree?

Our world today is a world of great contrasts. In the parched lands of the Horn of Africa, millions of people in countries like Somalia face the threat of famine annually, an apparent sign of a severe global food shortage. At the same time, rice is piled high in overflowing Thai warehouses, while "wine lakes" and "grain mountains" can be found in European ones. The problem of food shortage in the world today is, therefore, not a problem of inadequate supply, but that supply is unable to reach certain markets, such as Somalia. This mismatch can potentially be resolved, but not without great difficulty.

Pessimists often cite the Malthusian argument that increases in agricultural productivity will never outstrip population growth, which will lead to massive food shortages. Thomas Malthus believed that agricultural output grew arithmetically. His supporters point to the massive population growth taking place in the past decades, with the world recently exceeding 7 billion in population and still growing rapidly, and which technological advances may not be able to keep up with. They also point to the alarming statistic that if everyone in the developed world consumed as many resources as an American, which is becoming increasingly plausible with economic development, humanity would require the resources of 2 Earths for sustenance, placing tremendous pressure on the food supply. Global food shortage will never be resolved but will instead be aggravated in the coming years.

Such a viewpoint, however, underestimates the power of human ingenuity in overcoming resource constraints. Over the past 60 years which saw the greatest episode of population growth in history, global per capita food production increased. Advances such as the mechanisation of production in the developed world, and the "Green Revolution" in Asia, in which high-yield varieties of rice were developed and cultivated, have contributed to the impressive expansion of food output. While some may think that the days of technological progress are over and we are now facing a plateau, there are many promising developments in progress today. Urban communities worldwide are taking to rooftop farming as a viable recreation option and food production, from Brooklyn in New York to Chongqing in China. Also, Dutch researchers have created a meat patty from stem cells cultured in a laboratory, which they believe can reduce the amount of resources necessary to grow meat from animals; up to 13 pounds of grain, for instance, have to be fed to cows to produce a pound of beef. Such new technologies and breakthroughs have the potential to alleviate the global food shortage by ensuring that increases in agricultural productivity can keep up with population growth.

Despite the fact that global food production exceeds demand, one must concede that vast inefficiencies exist in the supply chain, preventing consumers from getting access to food. Goods that reach the Somalian market must be subject to "taxes" and payments to militants and pirates on the journey there. Even in India, with a functional government which has set up the Public Distribution System (PDS) to distribute food to the poor at affordable prices, only 41% of food actually reaches the intended

beneficiaries. The remainder is left to rot in warehouses while bureaucrats are mired in paperwork, as corrupt officials take the opportunity to siphon off some. With such a colossal waste of food, it would be no surprise that the food supply actually reaching consumers is inadequate to meet demand due to practical difficulties and inefficiency.

There are, however, reasons to believe that such obstacles need not be insurmountable. In India, it was discovered that many vegetables would decompose and spoil on the route from inland producers to markets in the coastal cities. In order to control this problem, an express train service was set up to connect rural areas in Maharashtra to Mumbai, so vegetables could arrive fresh with minimum spoilage. Problems that seem to be insurmountable, such as inefficient supply chains, can often be solved with simple solutions if there is political will to tackle them. The problem of global food shortage need not be a death sentence on humanity insofar as there is sufficient political will to combat it worldwide.

The rise of democracy as a form of government also brings hope regarding the alleviation of food shortages. Food is a fundamental source of nourishment for humans, without which survival is impossible. This makes food a hot-button political issue in many countries, without which social upheaval and unrest can occur, which is sufficient to induce even corrupt politicians to ensure that food shortages do not occur, so that they may remain in power. In Indonesia, necessities such as petrol and rice are granted government subsidies to ensure that the poor can afford them, and measures and stockpiles are in place to cope with any shortage. Onions have also emerged as a key election issue in state elections in India. The rising prices of one of India's favourite condiments have prompted opposition parties to sell onions at low prices to gain popular support. With food a pressing issue in democracies such as India and Indonesia, politicians have a huge incentive to prevent food shortages in all parts of the world.

Increasing political stability and the fall of Communism have also alleviated a causal factor for food shortages in many regions, increasing the global food supply. In the 1950s, Mao Zedong's "Great Leap Forward" policy for China reallocated precious labour to industrial jobs, leading to a reduction of agricultural labourers, while farmers were required to hand over food produced to the state, leaving little incentive for them to produce efficiently. In addition to that, widespread corruption hindered the distribution of food, leading to massive famines and millions of deaths. Today, China has introduced market principles in a series of economic reforms, with nearly all produce sold at free-market prices, so producers have an incentive to produce and sell, while food can reach consumers. Famines in China are now a thing of the past. With the exception of North Korea, the threat of Communist ideology to the global food supply has been largely diminished, removing a significant obstacle to resolving the problem of global food shortages.

Nonetheless, we must temper this sense of optimism with the awareness that longstanding policies that have come in the way of resolving the problem of global food shortage cannot be easily changed. Farmers in many countries wield significant political power, and this has led to the provision of huge subsidies to them, which incentivises production. While this should reduce the global food shortage by increasing supply, it may often have deleterious effects on certain countries if food aid is dumped by developed countries, depriving local producers, who may not receive subsidies, of their livelihood. The European Union's Common Agriculture Policy

(CAP), with its huge subsidies of about $2 per cow per day incentivises farmers to produce more, with the resulting effect of vast supplies building up in stores. The EU often disposes of excess food in developing countries, such as African ones, as food aid. Locals cease to purchase from local producers, decimating the local agriculture industry. One may therefore be ambivalent about simply increasing food production without thought to how the effects that certain policies may have, especially if they reduce food production in other countries.

In conclusion, the global food shortage has the potential to be resolved, and has been alleviated to some extent in the past decade. Political and economic factors are crucial in ensuring that food production is adequate to meet global demand. As policies are introduced to increase food production, the possible harmful effects must be judiciously evaluated and the policy must be calibrated to reduce these negative effects. Even when parts of the world face less of a food shortage problem, future challenges such as the effect of climate change must be anticipated. As John F. Kennedy once said, "the time to repair the roof is when the sun is shining". The same is true for global problems: countries without a food shortage problem now must also anticipate and prepare for the future. Only then can the global food shortage be resolved both now and in the future.

Marker's comments:

A very comprehensive, well-substantiated and coherent response. Some parts have a tendency to sound a tad naive but, on the whole, this is a highly competent piece.

Essay 14   Jiang Peicun   13A01A

Is written history merely recorded prejudice?

Mark Twain once wittily quipped, "the very ink with which history is written is merely fluid prejudice." While this line of reasoning seems rational enough, I reject the preposterous postulation that all written history is merely recorded prejudice; neither do I accept the naive notion that all written history is objective and tells the absolute truth. I believe that written history, as a tool for nation building or for the aggrandising of a leader's roles, can indeed be biased. However, even when it is biased, it is more than merely recorded prejudice as it has intrinsic educational value. Moreover, history, as a discipline, requires historians to be as objective as possible, and write based on hard evidence rather than personal prejudice. Ultimately, there are truths in history which we will never know, so it may not be fair to simply condemn written history and label it recorded prejudice.

Detractors of written history may point to national histories and argue that nations have manipulated their histories to further the government's end of nation-building. Winston Churchill once said, "History is written by the victors." Since governments are usually victors of independence wars, many have written national histories in ways which have buttressed nation-building efforts. Governments may ignore certain facts, cover up certain opinions and distort certain truths so that recorded history may better serve as a tool to forge national identity. For instance, the Japanese government has been fervently criticised for glorifying the cruel acts of its soldiers and the immorality of invasion. This is evidence of prejudice, as the Japanese government, through written history, has distorted the truth so that their forefathers may be appreciated by subsequent generations. Likewise, Indonesian history tends to highlight the roles of Sukarno and his Partai Nasional Indonesia in their battle for independence, with little acknowledgement that Indonesia's independence only came about when the United States of America (USA) pressured the Dutch colonial masters into withdrawal by threatening to withhold the Marshall Aid. Writers of Indonesia's national history wrote whilst taking into account the government's innate suspicion of foreign superpowers and ambitions to become a regional superpower; thus, to write about the role of the USA would be to undermine the government's lofty aims. Hence, written history is clearly prejudiced if it is written without a desire to tell the whole truth. Therefore, it can be seen that history, as a tool for nation-building, may indeed be biased.

Besides, derogators of written history may insinuate that it is biased because it tends to aggrandise certain individuals. This is true to the extent that dictators have often ordered history to be written in a way that glorifies them. While this is sometimes used for nation-building, it sometimes dangerously resembles symptoms of megalomania. A quick perusal of world history proffers a panoply of examples: Chinese history tended to magnify Mao Ze Dong, elevating him to godlike status, especially during the Great Cultural Revolution; Soviet history celebrated Joseph Stalin as a hero of the nation; German history aggrandised Adolf Hitler while condemning the Jews for no good reason, as epitomised in the Hitler Youth Programme. Upon closer inspection, it may be easy to see why some view history as merely recorded prejudice when we realise that Chinese written history often covered up the immoral and unreasonable

punishments Mao meted out to those labelled "counter-revolutionaries"; German written history during Hitler's time failed to recognise the sheer immorality of the ideas it had propagated; Soviet written history often ignored Stalin's vicious purges of fellow party members just to cement his own power. Thus, we see that rather than providing a set of clear lenses through which we can view the past objectively, written history may sometimes be a magnifying glass which exaggerates the roles of certain individuals.

However, even if written history is indeed biased, it is not merely "recorded prejudice" but has educational value as well. This is epitomised by the first Chinese historian to write history, Sima Qian. While reading his works, one may inevitably find traces of prejudice as he condemned groups of people who were not moral in his eyes. This is because he sought to write history as a moral story. Since morality itself may be subjective to individual beliefs and relative to cultural norms, Sima Qian's works are inadvertently prejudiced against those who were deemed immoral according to his moral yardstick but were moral according to other measures. However, this does not make Sima Qian's works "merely recorded prejudice" as his writingshave educated the Chinese, who find in it values that have been desirable. This shows that even if written history may indeed be biased, it may still have educational value.

Moreover, history, as a discipline, requires historians to make intelligent and objective inferences based on solid evidence. This means that rather than a fixed set of records, history may change with time as historians find new evidence and revise their works. This underlines that written history, rather than being a fixed set of "recorded prejudices", is in fact a flowing body of knowledge that changes based on new discoveries of artefacts, records and sources. A solid example of this is Cold War history, where changing evidence gave rise to changing views. In the 1950s, "orthodox" historians unanimously condemned the USSR for its internationalist agenda, positing that the Cold War began fundamentally due to Stalin's expansionist ambitions. However, in the 1960s and 1970s, a new school of historians, known as "revisionists", began shifting the blame to the USA, castigating the Americans for cultural imperialism and economic colonialism, with its own expansionist agenda manifest in policies like the Marshall Aid Plan, which forced Western Europe to open up its markets to US exports. Then in the 1990s, following the opening up of Soviet archives, John Lewis Gaddis famously published the book, "We Now Know", which decisively shifted the blame back to the USSR, as he provided insights into Stalin's ambitions after gaining access to Soviet archives following the breaking up of the USSR. This shows that rather than being fixed, written history may change over time as new insights are gained and new inferences are made; as new evidence becomes available, historians strive to discover what German historian Leopold von Ranke sought:"Wieeseigentlichgewesen"("How it actually happened"). Thus, history, based on its changing nature, should not be condemned as merely recorded written prejudice.

Finally, the thoughts of historical agents cannot be cast in stone. It is difficult, if not impossible, to assert that certain things are the truth, the whole truth and nothing but the truth in history. Thus, it may be unfair to label history as merely recorded prejudice because we do not even know the truth. We may never know whether Mao's reforms and Stalin's purges were for nation-building or self-aggrandising purposes, so it may be unfair to simply criticise Chinese and Russian histories. Ultimately, there is some truth in what Voltaire said: "History is nothing but a pack of tricks that we play on the dead", because our lack of experience in that part of history renders us too ignorant

to judge anything written on it.

In conclusion, even though it is clear that history has been used to further the aims of nations and victors, it is not clear that history is merely recorded prejudice, not least because prejudice can only be determined if we know the truth of an event, something which might well be impossible. Rather than pessimistically and cynically condemning all written history as "recorded prejudice", I am more inclined to follow Napoleon Bonaparte's philosophy: "History is a myth we choose to believe in."

Marker's comments:

Thoughtful response. Depth of evaluation and awareness of issue clearly evident. Effective introduction. Structure is clear.

Essay 15   Pavithra Ramkumar   13A01A

Is it foolish to believe in the supernatural today?

Throughout human history, thousands and thousands of authors, cinematographers and musicians have played upon our fear and belief in the supernatural. From the prayers we are taught to mutter to our instinctive fear of things that go bump in the dark, our belief in supernatural entities is deeply ingrained in us. While our ancestors of yore may have chalked up everything they could not explain to ghosts or prayed to benevolent powers to cure the plagues that afflicted them, modern Man lives in an age of endless innovation, constant discovery and unstoppable progress; yet our belief in the supernatural offers to us that which modern life cannot: a sense of community, comfort and answers to unanswerable questions. Thus, though naysayers may mock belief in the supernatural as irrational and foolish, century upon century of belief in the supernatural serve a purpose, and such belief is unlikely ever to be eradicated.

Some may argue that belief in the supernatural is foolish not merely because it is irrational but also because it is harmful, especially when belief in the supernatural causes individuals to reject scientific advancement. One may point to those who would prefer to go to charismatic Christian churches and receive "faith healing", where a pastor lays hands upon an afflicted individual and encourages congregants to pray for him or her, rather than receive medical treatment for their conditions. Similarly, there has been a rise in what is derisively referred to as "pseudoscience", a New Age combination of spirituality and science that results in individuals relying on meditation and yoga to achieve questionable-sounding effects like "positive vibrations" and "good energy" to cure their ailments, rather than relying on traditional allopath. In such instances, a belief in the supernatural seems rather foolish, in that it hampers individuals from receiving the care they need, and allows skilful con-artists to manipulate the vulnerable into believing that all they need to do to cure their cancer is to attend "prayer sessions", all at the low cost of two hundred an hour. While clearly such outright rejection of science is foolish, a combination of belief in the supernatural and a belief in science harms no one, and in the case of medical science, may in fact increase the efficacy of treatment. For individuals suffering from debilitating illnesses, prayer may provide psychological strength, increasing the patient's ability to fight the illness. Thus, while the supernatural at the expense of the scientific is foolish, the two need not be mutually exclusive, and may work in tandem.

Belief in the supernatural provides individuals with a sense of community and identity that modern life lacks. In our fast-paced world, places of worship provide avenues for individuals to congregate and socialise. It can be argued that there are other ways through which such a sense of community can be created, such as through dinner parties and neighbourhood events. However, a shared belief in a common supernatural entity is unique in its creation of a community for two key reasons. Firstly, unlike other social events which are only open to individuals who move within the same circles and come from the same socio-economic background, religion is far more open. With the exception of certain minority religions such as Zoroastrianism that require individuals to be born within the faith, most major religions allow anyone, regardless of background, to join their flock, and no mosque, church or temple bars

believers from entering. In fact, most major religions make a point of reaching out to the vulnerable and disenfranchised as they believe it to be a core tenet of their faith, making belief in the supernatural beneficial to the wider populace. New immigrants often use religion as a means of establishing a community, as seen in the tight-knit Jewish community in Singapore and the Korean civilian community in the United States of America. Secondly, the common rituals observed, prayers said and songs sung amongst members of the same faith bring believers together in a way that cocktails and dances simply cannot. Thus, in a fast-paced world where we grow increasingly distant from one another, belief in the supernatural creates a sense of communal identity that is not only not foolish, but in fact essential.

Furthermore, though it may be irrational, a belief in the supernatural provides answers to unanswerable questions, and comfort for the bereaved. Though we have no conclusive evidence to back it up, for centuries Man has believed in the possibility of an afterlife. From the Egyptian Book of the Dead to the Greek River Styx and the Chinese Ten Courts of Hell, hundreds of mythologies have been built upon our attempt to conceptualise life after death. Such a belief continues to be relevant today, because it provides comfort for the dying and for the grieving. It must be acknowledged that a belief in the supernatural leads individuals to believe that they have the prerogative to decide an individual's afterlife, as seen in the readiness of certain zealots to condemn their fellow men and anyone else. We have no right to tell a child who believes his mother is in heaven that his belief is foolish, because such a belief allows us to move on in the hope that our loved ones have gone to a better place, and find solace in our darkest hours.

Lastly, a belief in the supernatural has brought us some of the greatest works of art in human history. Be it Da Vinci's "Madonna on the Rocks", Dante's "Divine Comedy", or Michelangelo's fresco in the Sistine chapel, many great artists have used belief in the supernatural as inspiration for their works. While it is pointless to speculate if they could have produced such works had they been non-believers, it is undeniable that a belief in the supernatural, especially the rich lore and mystery that surrounds it, was a core tenet of their work. Such a belief continues to be relevant today, as modern artists also use belief as a tenet of their works, be it Stephen King with his famous works that prey on our fear of the supernatural or the Harlem Gospel Choir that continues to enthral us with songs of praise. Thus, a belief in the supernatural is not only far from foolish, but may even be inspirational.

In conclusion, a belief in the supernatural, be it God or ghosts, continues to form a core tenet of our lives, regardless of the progress we have made. Advanced as we may be, there is community and comfort that we derive from the supernatural, and from the notion that we are protected and loved. Belief brings us together, makes us hate, and is unlikely to ever leave the human consciousness.

Marker's comments:

Eloquently argued and clearly structured. A pleasure to read. Fluent throughout.

Essay 16   Chan Kai Yan   13A01A

Is there any value in preserving minority languages in the world?

There are several thousand different languages in the world but many only have several thousand speakers, or fewer. These minority languages may slowly disappear as the number of native speakers slowly falls and as speakers gradually do not use the language any more. Some may argue that there is little value in preserving such minority languages as the cost of doing so may yield little benefit for its speakers, who may be burdened with having to learn another language to communicate with others. However, there is a value in preserving minority languages, as the cultures which such languages represent are inherently valuable as a part of the collective social memory of mankind.

There are those who may claim that there is little value in preserving minority languages as it may be costly to do so, and the costs may outweigh the benefits of maintaining the use of these languages. To preserve minority languages, linguists and ethnographers would need to document their grammar and vocabulary in order for these languages to be taught academically and preserved systematically for posterity. Furthermore, many speakers of such minority languages are located in geographically-inaccessible places. For instance, Papua New Guinea is home to some eight hundred languages, and is the country which has the largest number of spoken languages in the world, many of which have only hundreds or thousands of speakers. However, much of Papua New Guinea is dense and inaccessible jungle, thus making it difficult for these languages, whose speakers live in such challenging terrain, to be properly documented and preserved. Additionally, it may be expensive to provide teaching resources for these languages and to maintain the use of these languages, such as through television broadcasting, in the public domain. This can be seen in the attempts to preserve Welsh, now a minority language superseded by English, in Wales, where the government spends millions of pounds on Welsh television broadcasting, providing bilingual road signs, and even providing Welsh translations for members of the national assembly in Wales. Thus, we can see why it may be argued that there is little value in preserving minority languages given the cost of doing so, especially since the benefits of preserving minority languages generally accrue to its speakers, who usually remain a minority, such as Welsh speakers in Wales.

Furthermore, it may be argued that there may be little value in preserving minority languages as the speakers of such languages would continue to be burdened with learning additional languages in order to be able to communicate with others in society. This is because minority languages are likely to remain minority languages in communities, despite preservation efforts. The only minority language that has ever been preserved and become a widely spoken language is Hebrew in Israel, and this attests to the fact that speakers of minority languages are likely to have to learn other languages to communicate even if their language is preserved. Not everyone may be able to be effectively multilingual, as demonstrated in the case of Singapore, where students and parents have often publicly debated with political leaders over the need to learn two languages in school. Thus, efforts to preserve minority languages in communities may be unfair to those who are unable to be effectively multilingual,

and may thus have an imperfect command of either language, negating the effects of preserving the minority language. This may become increasingly likely given the trends of globalization, which have led to the proliferation of several languages globally, such as English, Mandarin, French and Spanish, which have become the lingua franca in many communities. Thus, there may be little value in preserving minority languages given that, besides imposing costs on others in a society, it may also impose costs on the speakers themselves, who may be burdened with learning another language in order to communicate with non-speakers, who are likely to dominate in society.

However, there may be inherent value in preserving minority languages as such languages are a part of the culture of a community, which ultimately is a part of human civilization and the development of human societies. Many minority languages are spoken by small communities whose ways of life are slowly disappearing, and languages encapsulate these ways of life in many ways. For instance, the Inuit have multiple words for different types of "snow" while English does not, given the nature of the polar landscape which the Inuit inhabit. Thus, minority languages have an inherent value as a representation of the multitude of cultures and lifestyles that make up human civilization. Furthermore, some minority languages may have important historical value as a link to the past. A prime example of this would be the Manchurian language, the language of the Manchus who ruled China under the Qing Dynasty from 1644 to 1911, which now has less than 50 speakers. Knowing Manchurian is essential to understanding court documents and other historical documents, and thus there may be value in preserving such languages which serve as links to the past. Thus, it may be argued that it is well worth the cost to preserve a minority language given its inherent value as being a part of human civilization and the development of human societies, and some minority languages further serve as an important tool which one can use to examine the past. The value of preserving such minority languages may also be increased, given that once a language is extinct, it is difficult, if not impossible, to revive it into common use again, thus making the loss of a language even greater.

In the final analysis, there is value in preserving minority language in the world given their inherent value as a part of human civilization and in the role they play in charting the development of human society across the world. Even though the cost of preserving such minority languages may be prohibitive, falling upon both speakers and non-speakers alike, these costs may be mitigated, especially if the aim of preservation is not to make the language a widely-spoken one but to preserve it among a small community, in which case the financial cost of preservation would be reduced. Furthermore, such financial costs may not outweigh the inherent value of preserving a part of human civilization, which is priceless.

Marker's comments:

It is good that your conclusion shows recognition of the fact that we cannot put a price tag on everything. You could also explore the value of minority languages in terms of the role of language. In the arts and culture – poetry and other forms of literature, for example. When we lose a language, we risk losing an appreciation and creation of such art forms.

Essay 17 | Wen Xingyue | 14S06Q

'The certainty of mathematical modeling makes science – an essentially inductive endeavour – more reliable.' Discuss.

Galileo once said that nature is written in the language of mathematics, and science translates that language for us. This view of the relationship between mathematics and science is prevalent, as evident in the use of mathematical models by scientists to make sense of their empirical data. The statement claims that the mathematical models generated are certain, and this certainty is what grants science more reliability. I would argue that while mathematical models are not as certain as they seem, they have made scientific knowledge more useful and therefore, more reliable.

Science is an enterprise built upon empirical observations of the physical world. Over time, we learnt to measure and keep quantitative records of these sense data and observations, utilizing mathematical equations to draw relationships between variables. For instance, Joseph Gay-Lussac drew a simple linear relationship between the pressure and temperature of gas in a system, from which predictions can be made about its behavior at conditions of pressure and temperature that are not physically feasible (for example, at -273°C).

The idea that patterns of nature found by science can be described by the language of mathematics is extremely appealing. Since mathematics proceeds deductively from an axiom-theorem structure, it is heralded as the pinnacle of certainty. Based on a set of basic mathematical axioms, every rational being can logically arrive at the same objective result. It seems that if we can apply the same laws of deduction to science through mathematical modeling of physical phenomena, science can also be more certain and thus more reliable.

At first glance, this possibility seems extremely likely to succeed. After all, with a given set of laws described with mathematical equations and deductive calculations, we are able to arrive at the same quantity every single time. For instance, by definition, the formula $F=ma$ relates the force acting upon an object to be directly proportionate to its mass and acceleration. With a certain input, the same output will be obtained, independent of sense experience. Yet such a view is clearly wrong.

Firstly, mathematical models are not absolutely certain. In much of the models employed by science nowadays, modern mathematics is used, such as calculus, but these are disciplines of mathematics that are not completely rigorous. There exists, even now, much dispute over the definition of a limit, and a full account of infinitesimal, commonly used in calculus, has yet to be provided. Hence, the mathematics that some models are based upon is not so certain after all.

Perhaps one could argue that there are some models, based on geometry or arithmetic, for instance, which are extremely certain as the axioms are well defined. However, this view is overly simplified. In reality, mathematical models rarely fit exactly with scientific observations. The model of the solar system describes the motion of planets to obey a perfect elliptical trajectory, but in reality, planet orbits are only approximately elliptical as they are affected by the gravitational attraction of various other celestial

bodies. Mathematical models are thus only mere approximates of what is observed in science, and rarely provide a certain account of it.

Also, our preconceived paradigms and assumptions in science can affect the models we choose to use. Newton chose to use Euclidean geometry to describe the nature of the universe, but Einstein employed Riemannian geometry for his theory of relativity, which gave a more complete account compared to Newtonian physics. Hence, even the choice of mathematical models is not certain and subject to assumptions and theories used in science.

Lastly, the use of mathematical modeling cannot ultimately solve the problem of induction in science. As stated, science is an essentially inductive endeavor. A mathematical model, however certain, may work in the past, but one cannot guarantee that it will continue working in the future. This delivers the coup de grace to the reliability of science as one cannot rely on mathematical models to always make the correct predictions. Even if the force applied to an object is proportionate to its mass today, one cannot ensure that such a relation will hold true tomorrow.

This is however, too harsh a view on the use of mathematical models in science. Mathematics, while not as certain as previously deemed, is still sufficiently certain and reliable, as it has up till now served its use. Moreover, the use of mathematical models has allowed us to make precise and accurate predictions which we then employ in the technologies we build and use, such as calculating the escape velocity when building rockets. Also, equipment used to measure observations in science are based on mathematical models (a telescope uses concepts of geometry, for example), and this has allowed us to constantly improve on the precision of our measurements and gain more accurate data.

Therefore, even though mathematical models may not be absolutely certain, nor are the choice of models to use necessarily objective, such models have proven to be useful so far and allow the findings of science to be more useful and applicable as well. For that reason, mathematical modeling has made science more reliable, even if it is not completely certain.

Marker's comments:

Your argument clearly and consistently addresses the core issues of the question. Paragraph structure is effective and develops your argument clearly. Examples are relevant and help to make your points clear.

Essay 18 · Aletheia Chia 13S03N

'Mathematics brings rigour to the sciences and can do the same with the social sciences.' Discuss.

We can calculate the projectile of a rocket to the moon, but not that of a man to success; or that of the formation and decay of a radioactive chemical, but not the rise and fall of civilisations. Areas of knowledge that make use of mathematics with its cold objectivity and deductive reasoning do seem to be more certain and accurate. The success of such areas, the prime example being science, has led some to propose the use of mathematics in other fields such as social science to instil greater rigour and certainty into the knowledge it produces. However, the nature of its study – the social world with complex, meaningful interactions – means that such applications may not be possible, or even wanted, given the different aims of the social sciences.

Mathematics has been described as an island of certainty in a sea of doubt, and its use in the natural sciences has brought greater certainty to this field of study. While some may claim that mathematics is but a tool and that the rigour of science ultimately relies on the scientific method, along with its fallibilities regarding its inductive method and theory-ladenness, it is a tool that can allow for a greater rigour in the study and creation of scientific knowledge.

Mathematics is objective and allows scientific laws or hypotheses to be described in an objective manner. The language of mathematics is common throughout the world - there are no disagreements as to the meaning of 1 or π, and none would agree that the diameter of a circle is not $2\pi r$. This is especially obvious when compared to the subjectivity of language, where different words can be used to describe the same event with varying implications, such as the difference between a 'freedom fighter' and a 'terrorist'. This makes mathematics a good tool that allows scientific hypotheses to be put forth objectively and unambiguously. There is greater rigour in a claim that the speed of a falling object is $v = gt$, as compared to stating that it falls quickly, and more so with increasing time. Different people may have differing opinions on exactly how quick 'quickly' is, and so on.

The use of mathematics in describing laws also allows us to deductively make predictions in order to test our hypotheses. If we were, for example, to claim that the perimeter of a circle is $\frac{5}{3}\pi r$, we would be able to derive from that equation the expected perimeter of a circle of a certain radius, and then measure it to confirm or falsify our hypothesis. The nature of mathematical propositions is such that definitive claims can be deductively derived from it, as compared to propositions phrased in language. The statement that history is cyclical and tends to repeat itself, for example, does not allows any definitive predictions as to when or how history will repeat itself. If this were to be phrased mathematically, it would allow for definitive, risky hypotheses to be tested, increasing the rigour and certainty of claims that have withstood the tests of falsification.

Furthermore, while scientific hypotheses tend to be constructed via induction, reducing the certainty of its claims, those that are couched in the language of mathematics tend to be inexplicably accurate, lending greater credence to such scientific laws. Isaac

Newton, for example, postulated the Theory of Universal Gravitation after observing numerous similarities between the falling motion of rocks and the movement of planets. This was not extremely intuitive, containing a second derivative, and despite being based on scanty observations and measurements was accurate beyond all expectations and continues to be used today. This unreasonable effectiveness of mathematics in describing the natural world can also be seen in numerous other examples from fractals to plots of complex numbers found in snowflakes and plants, to Einstein's famous, yet deceptively simple $e=mc^2$ equation. These all point to mathematics being the language of the natural world, hence phrasing scientific propositions in mathematics could increase the likelihood of it being an accurate depiction of the natural world, in addition to the certainty brought by its universal and deductive nature.

Mathematics can thus bring increased certainty and accuracy to knowledge in science, especially in fields such as physics where it is prevalent. Can it do so for the social sciences?

At first glance, it may seem that the deductive and universal nature of Mathematics may indeed confer greater rigour when used in the social sciences. If we were to describe an internal conflict, for example, words such as 'rebellion', 'uprising' or 'revolution' all bring about certain connotations that increase subjectivity in the description of the event. If we were to use numerical figures, such as the number of deaths, injuries or bullets fired by either party, it might be able to provide a more objective picture of the situation. Statistical analysis is also commonly used in social sciences to elucidate the causal factors of certain social phenomena. For example, we could calculate the degree of correlation between educational success and possible causal factors such as money spent on tuition, time spent on homework or the parents' educational qualifications, and from there determine the most important factors and use that to guide policy-making.

However, the nature of the social world is such that it may not be amenable to mathematical descriptions. Propositions couched in mathematics are often expected to be universal, such that they should be applicable across time and space. The human world, however, is highly complex with intricately connecting paths of human interactions, desires and intentions, some of which may not be rational. Economics, for example, the most positivist of the social sciences that involves the use of some mathematics in describing events, makes its claims ceteris paribus, in which a system assumes constancy of all other variables. While this does seem to give greater certainty to its claims, such as that expenditure would definitely change in a certain way when income rises, such situations are rarely found in the real world where a multitude of factors are at play, reducing its applicability and accuracy in the real world. Furthermore, it is uncertain if there even are any underlying social laws to be described, given the heterogeneity and complexity of human nature and the constantly changing social environment. We have yet to find any – even the simple law of demand, for example, which states that demand decreases as supply increases, does not hold in all cases as consumers may interpret an increase in price as an increase in quality, as with luxury goods. Theories that have yet to be falsified themselves lack rigour as they cannot be proved – proponents of a Marxist Theory of Income Determination, for example, that boldly states that 'the history of all hitherto existing society is the history of class struggles', can still claim that the theory still holds despite the failures of communism,

as the time of revolution has just not arrived yet. It appears that there is a lack of universal laws that can accurately or meaningfully describe social laws, leaving little use for mathematics in describing these.

Human actions, unlike physical phenomena, are also meaningful. Unlike the natural world, where a rock falling at 10m/s^2 is merely that, there can be multiple intentions or meanings behind a certain action. A woman raising her hand, for example, could be calling for a taxi, asking a question or reaching for a cereal box, making it difficult and less meaningful to describe the act of hand-raising mathematically. Even the act of describing a conflict numerically, as described earlier, can be made complicated by this. The idea of a 'casualty' can range from people who are permanently disabled as a direct consequence of fighting, to those who seek medical assistance from wounds, to even others who suffered psychological trauma due to direct or indirect participation in the conflict. Choosing which things to describe can further reduce the objectivity of these seemingly 'factual' descriptions: a reporter may choose to provide counts of casualties, while another of people driven out of their homes to favour different sides of the conflict. Couching social science descriptions or 'laws' in mathematical terms may only serve to obscure an ultimately subjective perspective with a veneer of objectivity.

While mathematics can increase the rigour of science by allowing for deductive predictions to be made such that they can be tested, this is not the same for the social sciences. Even if social science theories were described mathematically and predictions derived, researchers would not be able to test these predictions. While experiments can be conducted in the natural world, such as by ranging the height of a ball to be dropped while keeping other factors constant, this cannot be done in the social sciences given the nature of its study – human beings. If we were, for example, to postulate that a student's PSLE grade is the average of his parents, normalized to the amount of money spent on tuition, it would be impossible, not to mention highly unethical, to clone a baby and then raise him/her in an identical family, while varying the money spent on tuition. Instead, pre-existing 'experiments' have to be found, such as in twin studies or across similar societies. While mathematics, in the form of statistics can help to analyse such data, a researcher cannot truly test his hypothesis, greatly limiting the rigour that mathematics can bring to the study of the social world.

Thus, mathematics cannot bring greater rigour to the social sciences, unlike in the natural sciences. Should this be a cause for concern? Not necessarily. Unlike the sciences, social science does not aim to explain and predict phenomena with great certainty, and the idea of 'rigour' can mean different things in different contexts. Interpretive Social Science, for example, aims to provide a deep description of humans in the context that they live in, such as in the case of cultural anthropology, and does not seek to provide universal laws or make predictions. Mathematics and its precise, objective ways would not be applicable to such studies, and instead, greater 'rigour' in the form of a deeper understanding of the researcher's subjects can be obtained via culture immersion, observations over long periods and interacting with the subjects to develop a greater empathy with them.

While science itself is far from a certain field of knowledge, mathematics is a tool that can allow for greater objectivity and a measure of certainty in its predictions. Though

mathematics may be the language of the natural world, it is not as amenable to the social world as we cannot and should not try to provide universal, objective descriptions of a social world that is highly complex, constantly changing and ultimately subjective.

Marker's comments:

Excellent piece here, Aletheia! Your arguments were precisely and forcefully made, and the overall essay was persuasive and concise. The insights you brought to the discussion (especially regarding how it is not disconcerting to know that the Social Sciences may not benefit from the rigour that Mathematics can offer) were in line with many intuitions about the physical and human world, and genuinely refreshing.