



ZENITH 2014

ZENITH's first issue for 2014 brings you an exciting spread of the old and new! Look out for a collection of students' essays, one of our favourite staple sections. With the upcoming mid-year exams, are you still uncertain of how to deal with certain Paper 1 keywords? Then don't miss our ever-handy skills section! Watch out too for the Abstract section this issue, which features Mathematics!

Congratulations to the J3s on their outstanding results, some of whose essays are featured here! In the meantime, all the best for your upcoming mid-year exams!

You are most welcome to send feedback and suggestions in enhancing future issues of ZENITH.

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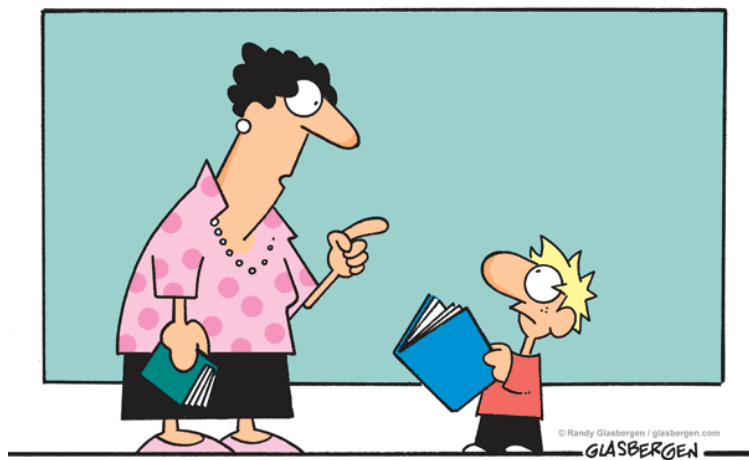
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"It's called 'reading'. It's how people
install new software into their brains"



...in ZENITH

Essay Selection

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ZENITH Essay Selection

Editor's advice to students:

While you may find the examples and points in these essays useful in answering other questions, please be judicious in using such information in a manner that is relevant to the POC of the question you are answering.

'A picture is always more powerful than mere words.' What is your view? (GCE06Q2)

'A picture is worth a thousand words' is an oft-banded maxim which depicts the power images hold to convey messages, ideas and opinions to people. Since the dawn of mankind, pictures have been used to communicate, a classic example being the Palaeolithic cave paintings our prehistoric ancestors used to create. With the advent of modern technology, pictures today take a multitude of different forms. The creation of new methods of capturing a moment in time on canvas has become even more complex and intricate and the invention of cameras has paved the way for an entirely new form of pictures in the form of photographs. With such technological advances in the ability of pictures to purposefully deliver content and convey thoughts, it does seem like a picture can be more powerful than the spoken or written word. However, this is not always the case as words are also undeniably an important form of communication that is ubiquitous throughout the entire world.

A picture can be more powerful than words in a sense that the former is more effective at stirring emotions within people, invoking thought and subsequently provoking action. Pictures have the power to convey messages with great clarity where sometimes words fail to do so. Although there are over half a million words, some things are simply ineffable with sufficient impact to stir an audience's emotions. For example, in their fight to

increase humanitarian aid to impoverished countries, activists often use pictures of malnourished children because such pictures or photographs are able to convey the feelings of hunger, pain and suffering these children experience to the audience at a glance. Words on the other hand may not be as evocative as it is difficult to convey emotions with enough depth to fully move people to action. Thus, I feel that a picture can indeed be more powerful than mere words at times as it delivers thoughts and ideas with great clarity and depth, and in doing so, has a greater influence on people than words.

Another reason as to pictures' power over words lies in their ability to be understood and internalised by a greater number of people, regardless of their origin or the language they speak. No thanks to the evolution of languages, there are more than six thousand languages in the world today, each with its own vocabulary of thousands of words and complex grammar rules governing the way it is spoken or written. This makes communication between people of different linguistic backgrounds highly difficult with words, unlike pictures which have a universal ability to be understood by anyone all over the world regardless of what language they may speak. For example, when travelling to a foreign country, everyone will be able to differentiate a male and female toilet if such direction was conveyed through pictorial signs with the classic blue male and pink female symbols. However, the written words for male and female may not be so effortlessly deciphered if they were written in a language one is not familiar with. This shows that pictures are able to reach out to a wider audience all over the world despite disparities in language. Hence, in this regard, pictures are indeed more powerful than words in their accessibility to any audience.

Lastly, from a different perspective, pictures are indeed more relevant to us than mere words because of the simple fact that the human brain thinks in the form of pictures. We as humans inherently perceive the world around us through pictures and not words. The fact that we

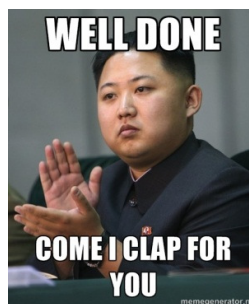
struggle to search for the right word to express a thought and how pre-verbal infants are capable of thought shows that thought processes are not carried out through words. Even though information may be fed to us in the form of words from an intellectual standpoint, these words are eventually translated into pictures by the mind. Everyone thinks in pictures and words function more like a second language to our brain. Humans will therefore be better able to connect with pictures or images on a more intuitive level because of such a phenomenon. Thus, pictures would seem to be more powerful than words as our human cognitive processes are more accustomed to visual thinking rather than through words.

Although pictures are more stimulating to the human mind, some detractors argue that, the spoken word is a more powerful tool of communication than pictures. The main reason for this can be exemplified by various speeches given by prominent orators such as Barack Obama or Martin Luther King, who were able to win the favour of their people through the influence of only their words. Another example critics may cite is the emotion that courses through one when listening to lyrics in songs. I do acknowledge the fact that although we may be captivated by words delivered through passionate speeches or with the backing of good music, on a deeper level, it is not the words themselves that intrigue us but the way in which they were delivered. It is through the passion and charisma of the speakers that really explain how we feel and react towards their words. In fact, it is their passion of delivery of the message that inflames our souls, not the actual words themselves which are merely a medium for them to do so. Hence, words may hold little meaning if delivered to an audience without flare and passion. Thus, the power of words is limited by the way it is delivered.

Nevertheless, the power of pictures to communicate and evoke does not entirely dilute the importance of words. Pictures are still and no one would hold a conversation or communicate a long message solely through pictures. To illustrate, even movies must be

accompanied by dialogue for easier communication of a message to the audience. Unlike pictures, words are interactive and are therefore used to engage in conversation and other forms of communication. Words do have a superior ability as compared to pictures in its power to allow for on-the-spot feedback, clarification and interaction. After all, this explains why our daily conversations with one another are expressed in words and not pictures. Two-way communication through pictures would not be feasible, especially for the artistically-challenged, as one can see from the farcical scenes in the game show 'Win, Lose or Draw'. As such, words are just as, if not more, important than pictures in situations which involve interactivity.

All in all, it is difficult to say which form of communication is always more effective. Thus, both words and pictures coexist because their usage together will help us convey messages better than if just one



medium was used to do so. In fact, the popularity of cartoons, comics and Internet memes today also hints at this: if a picture is worth a thousand words, pictures with words are worth much more.

Ashley Anil Saran 12S305

Review

An interesting read! While the points could be clearer and more thorough at parts, the writer has shown the ability to reason well for an abstract topic.

Can humour ever be serious? (GCE12Q10)

When we think of humour, what comes to mind would most probably be laughter, jokes and comedy. We perceive humour as enjoyable and associate it with light-heartedness and joy, so much so that it is rather disconcerting to think of it as serious. However, the paradox within the question



hints at humour encapsulating a serious element and indeed, humour is possibly more serious than we have ever credited it for.

Detractors of my view would argue that humour is by its very nature something which is not serious as it only serves to tease or ridicule. From slapstick to satire, farce to parodies, all genres of humour inspire a guffaw out of people of all ages and cultures. Even in the past, humour existed in healthy doses. In ancient Egypt, a scene at the temple of Hatshepsut at Deir el-Bahri portrayed the overweight figure of the queen of Punt, followed by a small donkey. The caption reads, "the donkey that had to carry the queen". A more modern and popular form of humour today is the internet meme, such as the memes which feature Gordon Ramsey's "his food is so undercooked" catchphrase to sneer at unskilled chefs. Whether it be in the past or present, good sense and taste appear to be missing in the humour, as such, detractors argue that such humour cannot be seen as serious as it does not serve a real purpose and its only function is to mock and make fun of people or prevailing issues.

It is rather unfortunate that these aforementioned detractors fail to see the bigger picture behind these jokes. Admittedly, on a superficial level, the intent of using humour is to ridicule, but upon closer inspection of the issue which is being ridiculed, there is indeed a deeper, underlying meaning or purpose behind it. Humour is actually being used to surface and garner awareness on important issues which plague society. Consider the sarcastic jokes told by ventriloquist Jeff Dunham on American life with the implication that Americans blindly follow trends instead of daring to show their individuality. Another case in point would be the hilarious "Headlines" segment in "Tonight's Show with Jay Leno" where Leno reads out newspaper headlines from all over the world which usually contain unintentional language errors that comically and completely change the original meaning of the message. These absurd and farcical mistakes make the editors and journalists of the respective

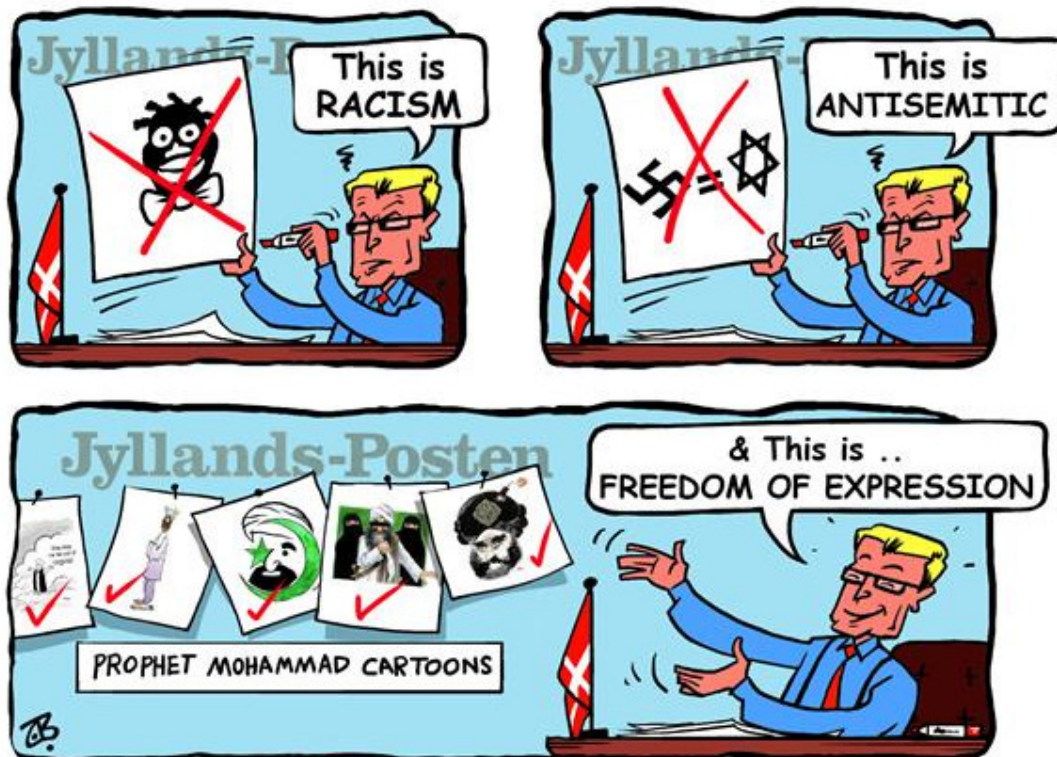
newspapers appear to be incompetent. Humour aside, being editors and journalists of a newspaper, an important publication used to inform the masses of daily happenings, is not the use of poor language worrying as they may instead mislead the people? Humour is indeed silly and funny, but underpinning all the jokes and laughter is a serious message that brings to the spotlight problems in society which need to be addressed.

Others may argue that humour does not contain the element of seriousness if people are enjoying it. After all, how can one be serious and focused on an issue when one is having fun? According to this group, humour has no purpose but to entertain and people love entertainment. They point to the huge success of comedies as featured in movies and television programmes such as *Meet the Fockers* and *The Big Bang Theory*. Indeed, it would appear that humour cannot have a serious element if it is used to lighten up a situation in the first place and thus, there is seemingly no link between humour and seriousness. To critics, humour is a diversion and a distraction from our busy and hectic lives. Yet, precisely because of this entertaining factor, humour is used as a tool to get people to comprehend the seriousness of an existing problem. Humour sheds light on and directs people's attention to the issue at hand and as a result, brings across the severity of the issue and the need for it to be rectified. For example, in the Singapore education system, it is not uncommon for teachers to show students the silly mistakes that they make in examinations and assignments. While students may laugh at their failures and mistakes, this actually helps to emphasise the atrocity of the mistakes made so that students are able to remember these mistakes and hopefully not repeat them. Hence, the amusement they feel from viewing these mistakes enables them to be more aware of their common errors. Moreover, humour is usually incorporated into most movies of any genre to keep the attention of the audience. This is because when one is entertained, one will be more focused and find the movie more enjoyable. Clearly, humour via the use of entertainment and

pleasure, can engage us and direct our attention to serious issues.

On top of humour's ability to keep one's focus on a serious matter, humour on its own is actually a serious issue when seen from the perspective of those who are being mocked. As they say, one man's meat may be another man's poison. Humour can thus actually be poison for those who are victims of mockery, while third parties and onlookers enjoy the meat – the humour – at their expense. In the sporting arena, we often laugh at the mistakes that athletes make especially in the sports of football and basketball. While we laugh and jeer at how daft Ronaldo may act on the field, to the extent that he was humiliated by fellow football player, Lionel Messi, Ronaldo himself will feel ashamed and bear the humiliation of his failures and inability to control the game or play properly. This serves as a major lesson not only to him, but to all other athletes who want to avoid being humiliated. Thus humour in this sense serves as a reminder to people to pull their socks up and improve as their mistakes would significantly affect themselves as well as those who depend on them.

Last but not least, humour is especially serious when it becomes offensive. When anyone makes a mockery of something, it would definitely be an insult to the person on the receiving end. While this can be dismissed as a mere joke on an individual level, it can have more serious repercussions on a national or even international level. In 2005, the Danish newspaper *Jyllands-Posten* controversially published editorial cartoons which depicted the Prophet Muhammad in a negative light. While published as a satire, the cartoons offended Muslims, eventually leading to protests not only in Denmark but also around the world, including violent demonstrations and riots in some Muslim countries which killed more than 200 people. Another case in point would be in 2007, when Oliver Jufer was sentenced to jail for defacing pictures of the King of Thailand, Bhumibol Adulyadej, by drawing graffiti on outdoor posters bearing the Thai King's face. Certainly, the *Lèse-majesté* law in Thailand is not to be trifled with. It is evident that jokes and humour are not always tolerated and the people involved could face severe punishment if they are caught. Humour does have serious





consequences.

In summation, humour can be serious if people do uncover the hidden meanings and messages behind the facade of farce and absurdity. The element of entertainment and delight also serves to bring people's attention to serious matters. Humour also gives a form of motivation for the affected to improve themselves in order to prevent further humiliation. Last but not least, humour can become a serious offense if one does not consider one's actions and act inappropriately. Paradoxical as it may seem, humour is seriously no laughing matter.

Yap Xin Yi Jeanette 12S101



Review

This essay brings up several interesting arguments which are well-supported by a variety of appropriate examples. Additionally, the use of clear signposting throughout the essay makes this essay an easy read.

'The tourist does not see the country the inhabitants know.' How far is this true of Singapore? (GCE05Q8)

According to the Singapore Tourism Board, the year 2013 saw a ten per cent year-on-year growth of international visitor arrivals to 3.9 million, while tourist receipts increased by two per cent to \$5.6 billion. Indeed, Singapore continues to be an attractive destination for holiday-makers. However, doubts have been raised regarding the authenticity of the Singapore experience tourists enjoy with the increased focus on 'selling' our man-made attractions to boost the influx of tourists, rather than playing up the rich heritage and culture of Singapore. The tourism industry's portrayal of Singapore is hence less accurate, often showing tourists a side of the nation that is different from the locals' perspective. Therefore, it is very true that the tourist does not see the Singapore the inhabitants know.

Detractors of my view argue that there are many places of interest that offer accurate

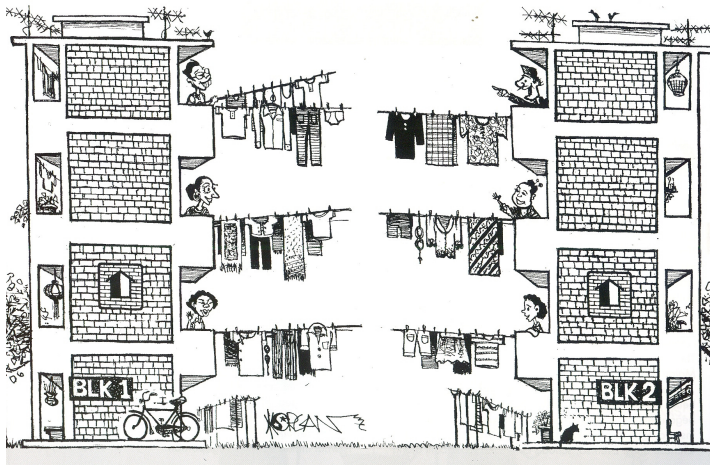
historical and cultural perspectives of Singapore, congruent with what Singaporeans know about their country. Heritage trails are available where tourists seemingly travel back in time to the different time periods and key historical moments, acquainting themselves with the local smells, tastes and sights of Singapore's history. All this history has indeed been taught to the younger generation or experienced personally by the older generation of Singaporeans. However this overlooks the fact that such places are increasingly commercialised and artificial experiences, missing what is truly authentic about Singapore. One example is Chinatown. Once populated by the early Chinese migrants to Singapore, it is today filled with modern eateries and booths selling touristy kitsch – imported fans, chopsticks and even very un-local kimonos – to the bus-loads of tourists descending on it every day, all doing little in providing them with an authentic local experience. This plays down the attractiveness of Singapore's rich and unique historical heritage, causing tourists to not see Singapore as it really is.

The tourism industry would also contend that tourists are offered quick insights into the daily lives of an average Singaporean through the activities planned out in their tour itinerary. Singapore's famous Duck and Hippo tours' 'hop-on and hop-off' system allows tourists to explore the city and heritage routes, getting a glimpse of Singaporeans' usual routines at such places and seeing Singapore as the Garden City she is. They are also exposed to the multicultural and bilingual nature of the country. With that said, it is also important to note that these would just lead to the development of stereotypes and caricatures about Singapore's society as all those are just merely snapshots and rarely true insights on Singapore's society. Only those who are adventurous would venture beyond the hotel lobby, away from the tourist-populated areas to where the real charm of Singapore lies. However, most tourists tend to gravitate towards the famed retail stretch of Orchard Road for familiar brands like *Louis Vuitton* and *Chanel* instead of the more local and authentic night markets. Famous local

cuisines like the *Fried Kway Tiao* and *Satay* from our hawker centres are shunned for the usual food they can get in their home countries. Hence, this superficial level of experience prevents tourists from seeing the country as her inhabitants do.

Likewise, another key reason is that although tourism has proclaimed to provide visitors with a unique insight to a country's culture, in reality it is simply a profit-driven industry. More often than not, tourists are engaged in extravagant activities at higher-priced venues such as Universal Studios Singapore, Gardens by the Bay, the Singapore Flyer and other man-made attractions that are rarely frequented by Singaporeans themselves. Tourists are then taken in by the façade created by the tourism sector, of a glamorous and exciting city, in an attempt to continue drawing visitors. With this, the country's heartlands such as Toa Payoh, one of the two oldest HDB estates in Singapore, and Holland Village, a truly bohemian enclave which has the best local offerings of art, carpets and antiques, are quietly ignored to give way to such rising attractions that are meant to further boost the tourism industry and hence the country's economy. Yet these are the places where a tourist would truly get to experience Singapore as she is, stripped bare of all the bright lights of the city, the throngs of people on the streets and the endless chains of couture brands, a cosmopolitan little island rich with heritage and its own fascinating story to tell.

The tourists' short stay in Singapore further



supplements the inability to see the realities of Singapore's society as a whole, with all its shortcomings. Local societal problems are often elusive to tourists as a result of a positively crafted portrayal, like that of cleanliness in the country. Singapore may be known to be a clean and green country, but this is in fact not a consistent occurrence. For example, the neighbourhood coffee shop or hawker centre which is less or never frequented by tourists is of much lower standards of cleanliness as that in the city. The rising wave of anti-foreigner sentiment among Singaporeans following the influx of immigrants in recent years is also unseen. Most tourists do not spend sufficient time mingling with the locals and suffering through the problems and the bread-and-butter issues which locals struggle with. It is thus a challenge for the tourist to be able to know the country within such a short period of time.

Lastly, in bilingual Singapore, the tourist's lack of interaction with the many languages in Singapore poses as a barrier in fully understanding and appreciating the culture here. Language is a link to a person's cultural heritage. Prominent French linguist Claude Hagege contends that language holds the connection and associations that define a culture. Surely this is true as traditions, rituals, and various art forms constituting a particular culture are invariably expressed in the language that the group speaks. One may be able to survey the Malay Annals literature or traditional Bangsawan opera with interest, but it is only with proficiency in the Malay language that one can truly experience the shifting nuances in these works of art. Thus, even if the tourist were to explore all the possible cultural and heritage places in Singapore, but have no basic knowledge and appreciation of the individual native tongues, it would be of little value to them.

In conclusion, it is not possible for a tourist to have a full understanding of the country based on isolated experiences or sightings. Instead, only by living among the local communities for an extended period of time would allow a tourist to attain understanding and insights into the country.



Gloria Ou Hui Xin 13S101

**Review**

The essay is coherently structured and has some interesting points and examples. However, a more balanced view to the issue is needed.

'Science is unreliable, being based as much on theory as on fact.' Is this a fair comment? (GCE11Q12)

How did the world come into being? That is the question scientists are perpetually trying to answer as they probe more into the mysteries of the globe and risk coming head-to-head with opposing fundamentals such as the Big Bang Theory and the notion of Creationism in Christianity. Yet, even as scientists continue to discover irrefutable evidence that ostensibly supports both theories, the public may begin to wonder exactly whose "side" the scientists are on and become sceptical about such hard evidence. With theory and fact coming together to form a composite field called science, what or who can they truly believe? Even if theories are corroborated by facts and statistics drawn from scientifically and logically designed experiments, there is still so much in science that remains unaccounted for. Therefore, is science unreliable, since it depends on both theory and fact? I believe that this is not the case. Even though concepts in science are composed of theory, I would have to argue that it is rather unfair to label science as a completely unreliable field.

Firstly, science has produced many wonderful gadgets and technology that serves to better our lives so much so that its successes in many different areas lend support to its reliability. From various areas of science such as robotic surgery through which doctors can remove tumours with more accuracy and fewer risks or cutting-edge prosthetic limbs that allow war and landmine victims to walk and even run, there is hardly any area of people's lives now that is not touched by the results of

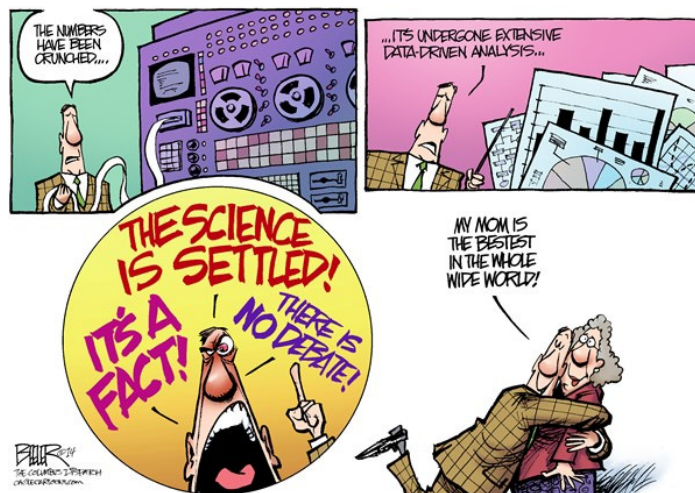
scientific experiments and discoveries. Indeed, one can say that today's world is now in a digital age where science is at the forefront. Even if some of them are just theories, scientists who have been able to build on facts and theories to come up with revolutionary technology prove that science is still reliable. To corroborate this argument, several examples that seem to come straight out of a science-fiction book and which are now real and practical forms of technology can be cited. Optical fibres function based on the theory of light being able to bend and be reflected so that terabytes of information can be transmitted at high speed. Lasers, on the other hand, were constructed based on the idea that light consists of discrete particles that can emit light used for medical purposes. Scientists have been able to use both theories, which have their own supporting evidences, to create these technologies that have played a significant role in the digital age today, showing that even if both theories are not fully fleshed out in explanation, they can still be used to make practical objects. Therefore, science is reliable since its successes can be qualified by real world situations and can compensate for the lack of certainty in the form of both theory and fact.

Secondly, it is precisely theory that makes science reliable. Scientists and researchers who devise theories have to conduct experiments to prove them, and if they are disproven, even more will appear out of the woodwork, awaiting corroboration. It is this very rigorous and stringent scientific method that enhances the credibility of science, since theories that are disproven can still shed some light on particular scientific concepts. As scientists continue to debunk theories and delve deeper into various subjects, they will glean deeper insights from their mistakes and gradually edge closer to the truth as more theories are put forth. Science thus becomes increasingly reliable as researchers eliminate inaccurate theories and suggest more defensible ones that can explain a natural phenomenon or occurrence, bolstering its credibility. For example, when J.J. Thomson first published the 'Plum Pudding' model of the atom in 1904, many

scientists came forward to question it and after only five years, it was completely debunked by scientists Hans Geiger and Ernest Marsden. Using their ground-breaking 'gold foil' experiment as a demonstration, they proved Thomson wrong. Hence, in learning from the disproven theories to formulate even better ones, science's reliability only increases.

Sceptics may claim that there are scientists and researchers who use their laboratory results from singular studies to extrapolate to the whole scope of nature, and in doing so, assume that all species closely related to their results adhere to them. This would render science inaccurate and unreliable given the disparities and differences in the world. However, to be fair to scientists, it is impossible to demand a concrete concept from science – the world is enormous and to collect sufficient evidence that proves one theory to be undeniably true is a Herculean task. Therefore, owing to the vastness of the universe, its biodiversity and properties, it is inherently impossible for science to completely break away from theory to be underpinned by plain, indisputable fact. Scientists can only satisfy themselves with partial factual substantiation due to the immense difficulty in finding all the evidence and samples that they need. One example is the evolutionary theory. Try as they might, biologists are likely to be unable to cement the theory as fact owing to natural occurrences that time and again defeat their efforts. The causes of evolution include natural selection, which scientists can easily monitor over generations, but also constitute phenomena such as biased mutations and genetic drift. Scientists are unable to predict when there are genetic malfunctions that cause a species to defy the theory and develop mutations or gene disappearances that set it apart from the other species of its ancestral family. Facts are not watertight because change is a constant, but science is able to follow these changes and remain current – thus it is as reliable as it can be.

Those in the detractor camp may also claim that the volatility of science and the fluidity of its theories make it unreliable



since theories are not concrete. They are always changing, nuanced and adapted to suit the subject of study. Therefore, science cannot be credible since it never stays the same due to its inability to be a plain, unchangeable fact. Yet again, however, this is a far too myopic view. The phrase 'change is always constant' is arguably the most accurate maxim that describes our world. Things are always adapting, morphing, transforming according to their environments and circumstances, and thus science can never be based on solid, unchangeable fact. Therefore, this argument against the reliability of science is not tenable as it is a demand that science will never be able to meet due to its very arbitrary nature. One note-worthy case study is influenza, which is notorious for its perpetual mutations and developments such that there are so many unique strains of the illness that there exists three different types of vaccinations for influenza, namely the Type A subtype H1N1 and subtype H3N2, as well as type B vaccine. Type A may see a new addition to its list of subtypes: H5N1. Hence, it can be seen that the world is never constant, and thus, science and its theories which study the world can never be fixed and rigid. In fact, it would be all the more reliable if theory accurately changes according to the metamorphosis of the facts of the universe.

Critics may also declare science to be unreliable due to the many assumptions made during its hypothetical stages. They may point to the various assumptions that many branches of science employ in their study so that their results can tally with their



theories despite there being no ideal situation in this world. The many assumptions involved in scientific study will never hold true no matter how hard scientists attempt to recreate ideal situations because they are what they are – assumptions that bear uncertainty. Such critics may refer to the example of Economics, an area of study that may be undergoing a radical change in direction as economists today are locked in a battle over the existence of *Homo Economicus*, which all the fundamentals of economics are built upon. *Homo Economics* – the economic human – has perfectly rational faculties and fixed desires, therefore he is assumed to make decisions, whose impact on the market can be predicted by economics. And yet, economists are now claiming that he does not exist, for consumers neither carry out such deep thinking into their market decisions nor use careful cost-benefit analyses. Furthermore, peoples' wants are notoriously fluid. Therefore, science is unreliable, they say, due to all the assumptions employed that make it so ideal and so impractical in reality. However, it is these theoretical assumptions that make science reliable, for without them, probably nothing can then be tested or explored. In fact, contrary to my critics' beliefs, assumptions are to deal with the inconsistencies in the real world and do not significantly impact the basis of theories. Many will find that the reliability of science is enhanced and not debilitated by the existence of assumptions because when the inaccuracies are accounted for, theories will fall into place. Therefore, theory enhances fact and increases the reliability of science.

Fact and theory are characteristics of science that cannot be separated. Even if they seem to contradict each other, they actually support each other to explain the various phenomena of the world. This is very visible in the field of psychology, where there is a plethora of theories employed to explain human behaviour, such as drive theory, self-verification theory and terror management theory. They are adapted comprehensively instead of separately in explaining social behaviour. The deluge of theories in science is unlikely

to stop. That may not be a bad thing after all.

Lee Hui Ying 12S101

Review

This essay deals with highly complex and abstract concepts in the most concrete way possible with relevant examples and case studies, as well as current insights into the world of science today. A commendable effort indeed!

'The grievances of women are a thing of the past' To what extent do you agree? (SRJCJ2PE13Q12)

In a Swedish kindergarten called *Nicolaigarden*, the most popular toy amongst the children is a set of dolls designed to teach children about emotions. Each doll wears a different expression but that is almost all they wear. Except for the knitted hats on their heads, the dolls are completely naked making it easy to see that they have no distinguishable gender. As times change and the world becomes increasingly globalised and modernized, it appears as if the feminist dream of gender equality is slowly but surely becoming a reality. The grievances that women once faced such as objectification, unequal treatment, unequal rights, or sexual crimes committed against them are gradually becoming a thing of the past because of the greater efforts made to recognize and to resolve the problem of gender inequality. However, it is all too idealistic and optimistic to believe that gender inequality and such grievances have been totally eradicated. Thus, I largely disagree that the grievances of women are a thing of the past.

As greater efforts are made to ensure and push for the emancipation of women by female activists and governments around the world, a notable amount of success has been achieved as over 70% of the female population has joined the workforce with an average of 20% taking on C-suite positions in the boardroom.



Hence, critics may argue that the grievances of women are indeed a thing of the past. However, they fail to realize that these figures are calculated mainly based on statistics from developed nations, while many developing and traditional countries in the Middle East, North Africa and Asia are still ranked amongst the bottom few in the Global Gender Gap Report 2013 by the World Economic Forum. In the same report, which measured the political participation, economic equality and rights between men and women, it was found that 20% of countries have made no progress or are falling behind in narrowing the gap between men and women. Even in developed nations such as the United States, a woman only earn 77 cents for every dollar that a man makes doing the exact same job. Thus this shows that women are still not receiving equal economic participation and even if they are given equal opportunities for economic participation, they are still economically valued lower as compared to men. Hence the grievances of women of being given full work emancipation is not a thing of the past but still prominently exists all around the world be it in developed or less developed nations.

Furthermore, some chauvinistic males may point to the fact that efforts to improve or protect women's rights have resulted in more laws being developed or implemented not only to ensure that women enjoy the same rights as men but also for women to enjoy more rights than men. In many countries, Gender Courts have been set up to protect the rights of women. In the light of the tragic and brutal rape case that rocked India and the rest of the world in early 2013, the issue of rampant gang rapes in India was highlighted and rape cases are now fast-tracked to the Gender Court to ensure that justice is served to the victims of gender crimes. Thus, to a certain extent, women's rights are now better protected and the grievance of not receiving proper justice seems now a thing of the past. However, these critics are too quick to jump to that conclusion because they have overlooked the fact that there is still insufficient or no efforts yet being made to address the root cause of the problem of

crimes committed against women, among these, the need for better enforcement of protection for women and more awareness of the severity of sexual crimes committed against women. In India, law enforcement is still rather lax and corruption among the Indian authorities is rife because very little has been done to increase transparency and change the ignorant attitudes of these Indian authorities towards gender equality. As a result, many sexual offenders especially the rich are still able to pay off officials with large amounts of "under the table" bribes and thus allow these criminals to escape scot-free. Unfortunately, this does not only happen in India but in countries such as South Africa, Ethiopia and Brazil too, where there are still many unresolved rape cases. Therefore the grievance of women is not a thing of the past even with increased efforts and more preferential laws to protect their rights because without proper enforcement, these laws are merely paying lip service to women and are practically useless.

Another reason why the grievance of women is not a thing of the past is because of the failure to change the mind-sets and attitudes of men in many traditional societies that women should be treated equally. Since the mind-set that men are superior to women is deeply rooted in certain cultures and have been the case for centuries, efforts made to promote equal treatment still face strong cultural resistance. For example, in tribal villages in Pakistan, women still suffer ritualistic and barbaric honour killings and there has been little success to change this custom practiced by these tribes. In a BBC documentary called 'India, a Dangerous Place to be a Woman', an Indian woman in her early twenties living in Britain is shown to travel back to India to visit her hometown after the infamous rape case that occurred this year in New Delhi and to come to terms with the conservative beliefs of both men and women in India with respect to women. In one scene, she visited a girl who suffered a sexual harassment attack after leaving a club as she was deemed as a "prostitute" simply for attending a friend's birthday party in that club. Even though she was dragged around like a rag doll and had her clothes

ripped off her when she exited the club, the most appalling thing was that even the girl felt that she was partly responsible for the attack and blamed herself. This shows that even in modern times, both women and men still hold strongly to regressive, oppressive mind-sets about the position and treatment of women in society, especially where women have to live in fear of their own safety.

Another grievance that women have not been able to escape from is their own commodification. Whether in the eyes of the public or the media, women are still perceived and used as objects of desire. This is because of the commercialization of many businesses that use provocative images of women in their promotional advertisements, hence leading to the greater objectification of women. These suggestive images attract the most attention as they use the ideal body measurements of "36-24-36" for their models, measurements that most women crave to have for themselves and most men desire to have in the women they admire. It is an undeniable fact that many girls and women all around the world and from all walks of life struggle with this desire to have the "model" body. In fact, this objectification of women has even led to a series of protests called the "Miss America Protests" in which women burn their bras and go topless as a symbol of releasing themselves from the restrictions that the world has set for women. It may seem ironic for women to want to break away from being objectified yet flash themselves and bare their breasts – the very thing that is used to objectify women. However, it only goes to show the limited power that women have to command attention to this issue, hence having no choice but be objectified again to gain attention and bringing light to the issue in an attempt to eradicate the gender stereotypes that women are bound by. Thus, this proves that the grievances of women are still not a thing of the past as women continue to fight against stereotypes and prejudices that objectify them.

In conclusion, the grievances of women are definitely not a thing of the past even

WHAT TERRIFIES
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MALALA YOUSAFZAI

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THE SCOTT McLEOD PARTY

IT'S A
GIRL
WITH A
BOOK.

though greater efforts have been made to help women achieve greater gender equality. There are still many strong women out in the world fighting for the rights of women, aiming to empower women. Malala Yousafzai, the teenage Pakistani female education rights activist who survived being shot in the head by the Taliban for fighting for education rights for girls, concluded in a book that she recently published with the sentence, "I am Malala, the world around me has changed but I have not." Hopefully in the future the world will change for the better, granting women more rights and achieving greater gender equality such that the grievances of women will truly be a thing of the past.

Maira Woo Wai Kuan 12S414

Review

A well-written and highly articulate essay, cleverly addressing the issues that still surround the debate of gender equality and women's rights, but at the same time, reasonably arguing that there have been some improvements over time.

To what extent does social media pose a challenge for governments? (MJCJC2PE13P1Q1)

In today's world, rapid change is currently afoot. Not only have we innovated, revolutionised and brought about radical paradigm shifts in technology, we have also developed our thinking and reordered the status quo. People now desire greater freedom, and this is perhaps best manifested in the

ubiquitous prevalence of social media in just about every aspect of our lives. With social media reinventing the role of the common citizen, governments all over the world are forced to rethink their own. While the impacts of social media can be mitigated, avoided, or even used to confer benefits with the appropriate approach, I firmly believe that social media largely poses a very real challenge to governments.

Firstly, it is difficult to dispute the fact that the common citizen has been empowered by social media to such an unprecedented extent that it can challenge the legitimacy of a government. This is especially true in the developed world, where social media can be accessed just about anywhere and at any time, allowing citizens to express their perspectives freely and facilitating their interaction with people of similar views. Should citizens share a common dissatisfaction with the inadequacies of the ruling party, social media can provide an open platform for the people to unite and form the beginnings of a revolution. Such movements, which can explode literally overnight via quick-share micro-blogging sites like Tumblr and Twitter, challenge the authority and power of a government. Consider the recent chain of events in the Arab world. Dubbed the 'Arab Spring', oppressive authoritarian regimes such as in Egypt and Libya were successfully toppled by the common people, whose deep-seated anger over their mistreatment by the government acted as a unifying force. However, unlike

demonstrations of the past, social media platforms such as Facebook and Twitter played a critical role here as an indubitable catalyst for the rebellion, providing a real-time medium for demonstrators to coordinate their efforts and rally for more support. Through hashtags, retweets and instantaneous updates, word soon reached the international community, who were quick to send aid. Since then, a whole slew of demonstrations and movements have tapped into the burgeoning power of social media to promote insurgent agendas — Taiwan's student rallies, Turkey's clashes in Taksim Square, Ukraine's bloody protests against Russian influence. Indeed, social media has proven to empower citizens with the ability to effect radical change in governance, and governments now face the threat of being deposed or their sovereignty compromised should they grievously err in their governance.

Social media also poses a threat to governments by having the potential to disrupt social stability. It is difficult to contend with the fact that people often feel more secure and less inhibited in their use of social media due to the anonymity they enjoy, leading them to assume that their words carry little weight and that their actions are of no consequence. In truth, with its prevalence and interlinked nature, social media is a metaphorical tinderbox, where online comments can spark conflict and fuel animosity, threatening to permanently rend the fabric of society. For instance, infamous Malaysian bloggers Alvin Tan and Vivian Lee caused an online uproar with their derogatory and racist remarks on their social media accounts, which caused outrage in the largely Muslim nation, and lingering grievances against the Chinese to once again break the surface. Despite legal action taken by the authorities, Malaysia's social stability has been disrupted as tension continues to brew along racial lines. Furthermore, social media enables rumour and panic to spread like wildfire among the people, which is clearly a challenge for governments to manage. In August 2012, unverified pictures of mutilated bodies started appearing on Indian mobile phones, Facebook and Twitter accounts,



warning that Indian Muslims were threatening to attack non-Muslims from India's northeast region. This triggered nationwide panic, resulting in tens of thousands of people fleeing from some of India's largest cities by the bus load, even after the federal government's efforts to quell rumour-mongering on tweets and Facebook updates. It is therefore evident that the reckless use of social media can impact the cohesion and stability within a country and this poses a massive challenge for governments as it is their inherent responsibility to resolve internal strife and ensure peace among the citizenry.

In addition, social media makes it extremely difficult for governments to maintain their power, when so many opposition voices are taking to these online platforms and making themselves heard. This virtual town square poses a grave problem for governments when the commentary is vitriolic, mocking and not in their favour. With social media indisputably playing a prominent role in today's social interactions, a government now faces the added complication of navigating such a tenuous, arbitrary space, making the job of garnering votes even harder. Take for example the 2011 Singapore General Elections, which saw a sharp upward trend in social media channels such as YouTube playing a key role in propagating the views of opposition parties or discontent citizens, as the more conventional forms of media restrict political discourse. Rallies and manifestos, once broadcast mainly on television and radio, were streamed live on politicians' Facebook pages. Candidates fielded questions from the citizenry not in interviews or panels, but by Twitter replies. Some even opened up personal accounts to allow people a glimpse into their everyday lives. By leveraging on the behaviour and interests of younger voters on social media, the opposition parties gained considerable traction on the ground and posed as serious contenders to the current ruling party for the first time in a long while. This unprecedented phenomenon could be attributed to the role social media plays in encouraging political participation, thus showing how it can be a threat to a government's power.

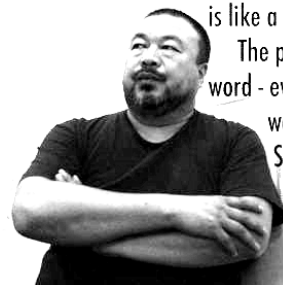
Nevertheless, critics contend that social media does not pose a challenge for governments, especially authoritarian ones, who have a host of draconian instruments of control and censorship. The enactment of strict laws for engaging in online dialogue or swift action in clamping down on any potential uprising can also be accompanied by intimidation tactics, and the identification and harassment of dissenters. For example, the Chinese government acted with haste to suppress calls for a similar 'Jasmine Revolution' which rallied for support online. Suspects were rounded up and detained for interrogation and the rebellion never came to be, as the government was watchful of such misuse of social media. However, I believe that in spite of the government's attempts, social media is notoriously difficult to suppress, due to the international nature of the Internet. Despite their best efforts to establish internet censorship through the 'Great Firewall of China', pockets of social media remain and its mere presence may be sufficient in challenging the government. Chinese dissident Ai Weiwei's scathing social commentary and criticism of government policy on Weibo and Twitter provided the world with an honest and untainted glimpse into the poor living conditions and neglect of the people by the government — before he was arrested and his blog shut down. While he never reopened his blog, Ai's work still continues to be circulated online in retweets and shares. This shows that even though censorship laws can be enacted to limit the influence of social media platforms, their almost infinite reach ultimately means social

"Censorship is saying: 'I'm the one who says the last sentence. Whatever you say, the conclusion is mine.' But the internet is like a tree that is growing.

The people will always have the last word - even if someone has a very weak, quiet voice.

Such power will collapse because of a whisper."

-Ai Weiwei





media is able to both publish and preserve sensitive information, posing a great challenge to governments.

Others also point out that social media could instead be used by governments to aid in their governing of the state. With governments realising the prevalence and potential of social media in today's world, they now have little choice but to be proactive and involved in social media in order to reach out to the current generation of digitally savvy citizens and gain a sense of the current state of affairs at the grassroots level. Other than ministry accounts used to obtain feedback, social media can be used to engage hard-to-reach communities, as seen in PM Lee Hsien Loong's efforts to connect with Singaporean youth via Facebook, or in Obama's continued interaction with the American public on his massively popular Twitter account. However, while I do acknowledge that social media can be used to a government's advantage, we cannot deny that a whole host of social problems can be found on social network websites, which makes managing social media a formidable prospect for any government. Child predators, sexual grooming, and online bullying already place the young in danger, let alone larger problems like credit card fraud, identity theft and terrorist networks which threaten an even bigger portion of the populace. Even as law enforcement agencies are creating fake accounts to entrap criminals, far more accounts are being set up for undesirable activity — sometimes even faster than they can be tracked and taken down. While authorities may manage to trace IP addresses and digital signatures, proxy servers are becoming increasingly sophisticated, allowing offenders to use complete online anonymity to their own advantage. Furthermore, any sort of censorship or restriction on a social media network, like Turkey's recent bans of Facebook and Twitter, is frequently seen as a direct challenge to the freedom of speech; a move that draws much flak from the largely democratic international community. It can therefore be said that for all its boons, the management of social media is a monumental task for governments around the world.

To sum it up, social media possesses the double-edged potential to either benefit a government or topple one. However, given that while its impacts are not necessarily deleterious, social media has proven its propensity to be used — or misused — by the citizenry to such an extent that it is becoming nearly impossible for authorities to keep a handle on online social activity. It is thus my strong belief that social media does pose a great challenge to the governments of today.

Chiang Ian 12S413

Review

Arguments clearly and consistently addressed the point of contention throughout the essay. An impressive range of examples was used to effectively illustrate points made. Clear linguistic markers and a range of sentence structures made for a well-structured and coherent essay.

Do you agree that efforts to regulate population size are necessary and effective? (MJCJC2PE13Q3)

The pollution, the diseases, the crimes — these are all the symptoms — not the cause. We are the cause." This quote from a recent popular fiction novel *Inferno* represents the trans-humanist concerns for the booming world population and its effect on the world we live in. While some of these ideas may seem cruel to some of us, it is undeniable that the world today is undergoing drastic upheaval due to changing population sizes, and we face crises, ironically, of both over- and under-population. The necessity of regulating population sizes is a natural consequence. However, after several countries have jumped on the bandwagon — from baby bonuses to one-child policies — effectiveness remains uncertain. I personally believe that while regulating population measures are necessary, the limited effectiveness of the current policies require a revolution of ideas regarding the problem.



The world population has soared in the last half century due to varying reasons like improving standards of healthcare, a (mostly) stable and peaceful global political climate, and revolutions in food technology, just to name a few. While these may seem to improve the general quality of life, several countries have seen the worst of it due to an exponential growth in population which the infrastructure of these countries cannot handle. Examples of developing countries which lacked effective birth control measures and family planning like India and several sub-Saharan countries come to mind. The problems resulting from this overpopulation often form the core of these countries' developmental challenges. There is resource depletion: widespread malnutrition in nations like Ethiopia exists simply because there is not enough food for so many mouths to feed. Social problems also arise, like in India where employment cannot be generated at a pace fast enough to match the rising youth population. Not surprisingly, the emergence of illegal businesses as well as youth gangs has become a problem in several states across the nation. These countries seem to be stuck in a vicious cycle, in which the effects of the people's economic and social development are neglected in the light of the rising population, which is further exacerbated by poor management of the increasing numbers. These countries need effective population regulation to allow the nation's development to reach the masses before further growth can be considered. This is necessary to maintain and improve the quality of life, infrastructure, as well as the economy of the country.

On the other end of spectrum, we have the problem of falling birth rates and ageing populations in developed countries like Singapore and Japan. While of a completely different nature, this problem is no less severe. A shrinking workforce and rising burden on it threatens to destroy the social fabric and economic developments that have made these nations exceptional. Japan has already seen a continuously falling GDP and has slipped downward in the list of the largest economies, despite being at the forefront

of technological development. Social problems have also gripped these countries — Singapore, which is increasingly relying on immigrants to maintain its international competitiveness, has felt a threat to her national identity and seen a rise in xenophobic sentiment. This has led the government to contemplate policies like tax increases in the near future which can cripple the country's position as a global financial hub. Despite rising social welfare and community life, the populations of such countries continue to shrink — an unfortunate trend that could be attributed to many things but cannot be pinned to any. The result is often irreversible damage to the countries' domestic life and international position. Population regulation and meticulous planning around it is necessary for this part of the world as well.

It can clearly be seen that population regulation is necessary — albeit in varying forms — for many countries in the world today. This global concern has seen different approaches to regulation policies, each tailored to the needs and characteristics of a particular society. That being said, I would have to argue that their effectiveness presents a rather dismal picture.

Countries with severe overpopulation issues have often been driven to extreme measures. Draconian policies like China's infamous one-child policy — though statistically effective — often border on human rights violations and have received much criticism from the international community. In 1973, the Indian government, in a bid to follow China's example, implemented a forced sterilisation programme where the rural population was sterilised against their will. This programme proved to be so unpopular among the people that it had to be abandoned. Unfortunately, milder attempts have also backfired. Another of India's highly controversial population policies, sex-selective family planning, has resulted in a grossly-imbalanced sex ratio in several parts of the country that continues as a result of prevalent and now-illegal sex-selective abortion. With too

many variables coming into play, what seemed like a simple solution has instead become a hydra of unforeseen problems that are not so easily resolved — and could even cause current efforts to backfire. We only need to look at Singapore's Stop At Two policy, which attempted to reduce the effects of the post-war baby boom, and was — ironically — almost too effective, to the point where the country now grapples with a steadily declining birth rate. While efforts like these are well-meaning, it can be argued that the proverbial road to hell — a stable population size in this case — is paved with good intentions.

Of course, many would argue that most countries have moved away from such cruel and unethical methods, and are choosing to adopt a softer approach — incentives are, after all, psychologically-proven tools of effective behaviour modification. To prop up sagging birth rates, generous tax breaks and cash hand-outs are being dangled as inducements for young couples to have more than two children in Singapore. The newly revamped Marriage and Parenthood Package has a slew of measures targeted at addressing both the financial pressures as well as the work-life balancing act of having children. However, such pro-natalist policies have seen limited success as they frequently do not address the root cause of the problem — a high cost of living and insufficient time for children. With increasing inflation and a heavily work-oriented culture, would-be parents are discouraged from the lifelong commitment of starting a family. On a similar note, state policies aimed at controlling birth rates

can be limited due to being at odds with religious and cultural mores of the citizenry. New calls to the Catholic Church in the Philippines, Brazil and Spain to allow contraception have been met with fierce opposition. In countries with a largely rural population, where large families are the norm — and even a necessity — people are highly unlikely to heed calls to reduce family size. Policy can only go so far before it is met with the implacable force of a collective cultural mind-set.

Immigration is often adopted as a means of increasing population size, where the injection of foreigners directly into the veins of a country has helped to counter most of the effects of a diminishing workforce and stagnating economy. Its immediate benefits are undeniable — and yet, pro-immigration policies are often not well-received by locals and can pose problems in the long run, especially when immigrants are not integrated well into the mainstream. Other than muted racism in heavily immigrant nations like Australia, riots have also been started by migrants in European countries — France in 2005, Britain in 2011, Sweden just last year — all of which highlights the severe rifts in these societies. And even if we were to somehow solve the problem of integration, the continued growth of any migrant population presents more practical concerns in the long run. The overcrowding of public infrastructure and the pressing need for housing because of a burgeoning migrant population places a huge strain on a nation's fiscal and physical resources. Furthermore, measures to increase population size purely for the sake of maintaining economic competitiveness could be hugely unpopular among citizens, who feel that such competition leads to a worsening quality of life for them. Some have already found this 'push' as reason enough to pack up in search of greener pastures, which further aggravates the issue of a dwindling local population. Countries cannot continue indefinitely in this manner, not when the long-term implications clearly dwarf any short-term effectiveness in addressing population growth.





We have now realised the severity and urgency of this global problem, and it is beginning to articulate itself in our collective conscience through popular media and books like *Inferno*. This re-ignites hope for fruitful discussions into designing policies that are more in line with the needs of individual societies and global conditions, hence increasing their effectiveness. Realising the necessity of population regulation, hopefully, will lead to its effectiveness as well.

Navya Sinha 12S103



Review

A well-written essay that deals thoughtfully with both points of contention. Excellent examples are deftly woven into the arguments, showing a good grasp of the issue. Language is fluent and engaging, making this essay a pleasure to read.

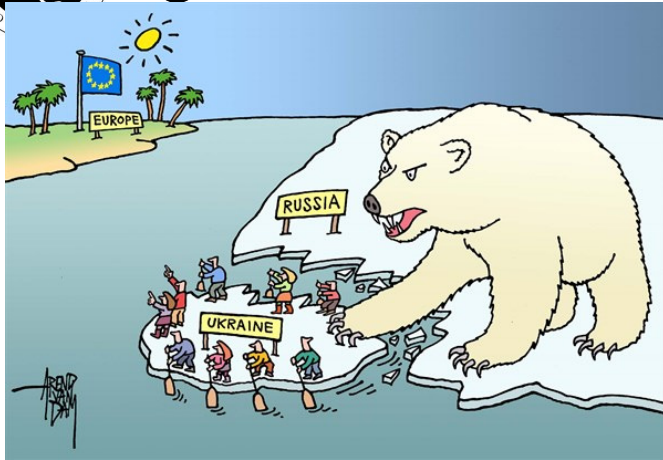
To what extent is a small population advantageous to a country? (MJCJ2MBT14Q3)

In the past few decades, humankind has witnessed the phenomenon of population explosion – an exponential increase in the number of people in this world. Just recently, the world population hit the 7 billion mark, up by 1 billion within the short span of 12 years. Contributing a significant proportion to this number are less developed countries (LDCs), where birth rates remain high. Conversely, developed nations have experienced a much slower increase in population. This stark distinction between the demographics of these two types of countries has unsurprisingly raised an inevitable question amongst analysts, politicians and citizens alike – is a small population a boon or a bane? After analysing the points for and against a small population, I strongly believe that a small population is not advantageous to a large extent.

To begin with, from an economic point of view, a small population is generally undesirable. In an epoch of unprecedented economic growth, a labour-rich workforce is critical in enabling

a country to venture into various industries, and also promoting foreign direct investment. A case in point would be China, the world's largest economy. Due to the large labour pool that China is blessed with, the nation has the ability to divide its workforce and channel its large number of workers into different industries. As a consequence, China manages to specialise in both the manufacturing of goods as well as high-end research and development. Furthermore, the large labour force coupled with relatively lower wages allows China to keep its labour costs down. This, in turn, has allowed China to attract numerous multinational corporations (MNCs) and foreign investors keen to tap on China's large pool of cheap labour into the country. In fact, the Economist recently reported that foreign direct investment in China contributed to 12.7% of the country's GDP, illustrating the difference a large population can make to a country's economy. On the flip side, a small population would lose out on such advantages as it simply does not have the sheer numbers to reap the advantage of a large, diversified workforce, supporting my view that small populations are largely disadvantageous to a country.

Secondly, a small population means that a country may have to compromise on its military strength. It cannot be denied that conflicts will exist amongst different parties, no matter how much the world progress and unites. The reason is simple - given the diverse world we live in, people will always have differences in opinions and ideas. When such disagreements play out on the world stage, military conflict of some form becomes inevitable. As such, in times of crisis, when a country is forced into war, the nation will be at the losing end if it has a small military force. For instance, on 2nd August 1990, Iraqi forces invaded Kuwait, a nation of only two million in population at that time. The million-strong Iraqi army easily brushed aside disorganized resistance by the 20,000-strong Kuwaiti Armed Forces with heavy casualties. Clearly outnumbered, Kuwait had been fully conquered by the end of the day. A more recent example is how Russia has taken over control of Crimea and other Russian-speaking parts of Ukraine with



impunity, while the Ukrainian government remains helpless to do anything. Given that only a limited amount of army personnel can be drafted from a small population, this example clearly goes to show the distinct disadvantage a smaller population faces, potentially jeopardising the security of the country, and may even make it a potential target for other countries. In light of this possible consequence, I believe that a small population could risk national security and is therefore undesirable.

Another disadvantage a small population faces is the potential vulnerability to cultural dilution in the globalised world today. With the fluid accessibility to cultural artefacts across nations today, thanks to modern technology, films, music and other nuggets of popular culture are seeping through the increasingly porous borders of nations. In an ideal situation, when both local and foreign cultural products are produced and consumed in balance, the citizens of a country benefit from the increased exposure to global culture while still maintaining their own heritage and identity. However, in reality, the smaller population limits the number of cultural products that can be produced compared to a larger population, simply through the sheer difference in the potential number of arts producers in the country, thus exposing the former country to the threat of cultural imperialism. For example, Singapore is a big consumer of American culture, while its local arts scene remains diminutive despite valiant efforts at raising public support due to the limited pool of talent and artistic works produced. There is little wonder that Singaporeans are

becoming increasingly westernised, with many of the younger generation remaining ignorant of the rich cultural heritage of the country. Hence, the susceptibility to external cultural influences is another potential detriment of smaller populations.

Detractors to my stand may argue that it is advantageous for a country to have a small population, as it will be easier to monitor and control activities of its citizens, ultimately resulting in a more secure society. They point out countries like Luxemburg and Monaco, which have small population sizes and are very well-managed, boasting low crime rates. I would accept this argument if we were still living in the Stone Age. Today, technology has become so advanced that governments can still control and monitor activities in a country, regardless of a country's population or geographical size, and can therefore still ensure security. To illustrate my point, let us take into consideration two countries, namely El Salvador and Japan. Although El Salvador has a small population of fewer than 7 million, it has the world's highest international homicide rate. In contrast, Japan, which has a population 20 times that of El Salvador, has managed to keep crime rates fairly low, making Japan one of the world's safest countries. This example shows that how well-run and secure a country is depends on the infrastructure and political willpower of a country, not merely its population size. As such, the claimed advantage of a small population is negligible and easily matched by other countries through the use of technology and proper governance.

Some also argue that a small population eases the strain on a country's resources and infrastructure. They argue that given the same amount of resources and land space, a country with a smaller number of people will require less water, food, space and infrastructure to support them. As such, the lower strain allows the government to devote more resources per person in the country, ultimately improving the quality of life and material standard of living of the populace. Granted that the argument does indeed hold some water, it is also dependent on the ability of the



government to manage and distribute its resources effectively to its citizens. A country with a small population may be rich in resources, but a poorly managed government can still be unable to tap on these resources, or worse still, squander them wastefully. For instance, despite Nicaragua's relatively small population of six million and its abundance of rich fertile land, nearly 50% of its population lives below the poverty line, in no small part due to the effects of inappropriate macroeconomic policies and civil strife from more than 30 years ago. Therefore, to reap the benefits of a small population, countries have to meet the prerequisites of managing and running a country successfully in the first place, a challenge that could be made tougher by the disadvantages of such small populations mentioned previously. Hence, a small country does not necessarily ease strain on resources and the argument presented by these detractors to my stand is largely invalid.

In conclusion, a small population is not advantageous to a country to a large extent as it is a stumbling block to the progress of a country's economy, it jeopardises national security and it also does not provide a suitable and conducive platform for cross-cultural interactions. However, it is vital for us to realise that there is no perfect formula for success. Ultimately, whether a country can use a large or a small population to its advantage depends on a plethora of factors. What governments should aim to do is to optimise their resources and to keep the welfare of their citizens and their country at heart. Only then will a country truly be able to succeed.

Navnidh Bhalla 13S103



An interesting read! Logically developed with apt illustrations at most places. Keep up the effort!

How far is a world without conflict a realistic aim? (MJCJ214MBTQ1)

Former US President John F. Kennedy once said, in one of his most eulogized moments of wit, that "Mankind must put an end to war before war puts an end to Mankind." The exhortation by the great statesman makes perfect sense to all, yet is near impossible to achieve due to the irresistible lure of power and the endless stream of men who lust for it. In fact, I am inclined to believe that a world free from the scourge of aggression amongst man is a distant, optimistic notion at best. This essay hence contends that man's clear but feeble attempts at reaching the ideal of world peace will forever be beleaguered by our obstinate reluctance to give up and let go of things like historical baggage, which entrap men in a world rife with bitter conflict.

Pacifists often argue that the world is made a safer place by dramatic advancements in technology, citing the age-old paradox that the best way to prevent war is to prepare for war. The timeworn example is often given of the development of nuclear technology for military purposes, which famously gave rise to the doctrine of mutually assured destruction. By ensuring that any aggressive act would be met with retaliation, this doctrine saved the United States from decimation on a nuclear level at the height of Russo-American Cold War tensions. While the influence of such technology in skewing countries' decision-making calculus is undeniable, equally inevitable is the progress of science and technology in our world. To claim that such doctrines will continue to hold water and stop conflicts eternally is predicated on the assumption that science will never progress beyond its current level – a foolish claim at best. The balance of terror upheld by the bipolar 20th century superpowers relied on each state's possession of second-strike capabilities – no state would be foolish enough to launch a first strike offensive if retaliation was possible and expected. Such capabilities have since been

diminished by weapons that are quicker and harder to detect, making it increasingly viable for technologically advanced countries to launch crippling attacks with little fear of reprisal. As intellectual discoveries inevitably reach greater heights, the limits placed upon man's aggressive tendencies slowly vanish and his ability to incite bloodshed only increases. On another far more insidious level, the acquisition of technology cannot be contained to states that act logically. Increasingly and alarmingly prevalent today is the trend of sophisticated defence technologies falling into the hands of terrorist organisations. Surely the same principles of deterrence do not apply to the very fundamentalists who have recurrently proven themselves crazed enough to die for their causes by perpetuating the horrific 9/11 attacks and other jingoistic instances of organised terror. The concept of mutual destruction does little to faze them, and can even arguably be said to represent their modus operandi. This paradox of preventing war by preparing for it is hence just that: a paradox. The unfettered growth of our technological capabilities not only renders old principles invalid, but also

treacherously weaponises manic groups that never abided by our logic to begin with, scoffing at the very notion of a world without conflict.

The rising militancy of fundamentalist groups leads us nicely into the next reason that the scourge of conflict is here to stay, namely that of religion. Far too often, our allegiance to the divine has shown itself incompatible with peace. Historically, the Crusades were perpetuated by Catholics who sought the propagation of Christianity and the extermination of Pagans. In fact, one does not have to look past this century to find instances of discord sowed by differences along religious lines. The Jasmine Revolution in Bahrain witnessed the Sunni Muslim monarchy crushing its Shi'ite opposition with columns of tanks, in a manner reminiscent of the Tiananmen incident. The Machiavellian Assad family in Syria, of the Shi'ite Alawite sect, has itself been quite ruthless in its use of chemical weapons to systematically quell its Sunni dissidents. Given all this in the context of burgeoning tensions between regional powers Saudi Arabia and Iran (of Sunni and Shi'ite majority respectively), and we have a toxic concoction for a long and bitter turmoil that will bedevil the Middle East for years to come. Of course, one might suggest that a secular world would side-step the quagmire of religious conflict, yet we can never be free of religion in the world today because of our innate need for it as a source of comfort and solace. It is ironically this special place it holds in our hearts that gives religion its divisive power, and is precisely what ensnares man in a world of strife, especially that which is motivated by fervent religious zeal, shattering any frail hope for the eventuality of world peace.

The next, and perhaps more tangible, aspect of human existence that causes and indeed justifies acts of aggression is the weight of historical baggage. The annals of history are brimming with uncouth and morally abhorrent human injustices, which we as a human race are obstinately unwilling to let go of. This creates simmering tensions which in a flash can erupt into violent disputes. The massacre of Arabs in Israel by the Jewish , motivated by their (religious) conviction in

Dry Bones MIDDLE EAST SMACKDOWN





the idea of 'Eretz Yisrael' or the Jewish promised land, has not been forgotten by Israel's Arab neighbours more than half a century later. Israel continues to be the pariah of the Middle East, her diplomatic overtures met with cold nonchalance by regional powers such as Iran, Saudi Arabia, and Egypt. The wars that have been fought to this end have been, and will continue to be bloody, brutal and barbaric in the violence meted out. This will only entrench tensions further, creating new baggage for future generations to deal with, ensnaring us in a vicious cycle of grisly revenge and payback. Even well-meaning efforts at restitution to ease hostilities arising from bad blood have shown themselves only capable of worsening matters. Rwanda's bitter colonial past embroiled her in a gross genocide after independence, which the government has attempted to fix via affirmative action policies like quotas in parliament and colleges for the historically victimised Tutsi ethnicity. The artificial favour placed on one race over another in the name of equalising opportunities has done more to create tension than rectify old ones. Such policies are not peculiar to Rwanda, with strikingly, and regrettably, similar results being noted in such countries as India and Malaysia. The burden of history hence poisons peace, and there seems to be no real effective way to reconcile this without complicating the situation further. The mistakes of our forefathers will thus continue to have violent repercussions for decades to come, keeping the dream of a world in harmony a distant fantasy.

Despite these harsh truths, optimists often put forth a more naive notion of war, arguing that the most grievous conflicts in history were results of political ideologies that were diametrically opposed, and since the world is far less binary today, wars should cease to be reality. While it is true that democracy has triumphed, leaving Marxism and fascism in its dust, the dominance of one ideology is again problematic, as it tethers dangerously towards imperialism. America mistakenly sees itself as the enforcer of democracy around the world, falsely believing that the varied freedoms enshrined in its own

Constitution to be unilaterally beneficial ideals, with a myopic lack of consideration for individual countries' unique demographics and other traits. This blind ideological fervour has motivated violent incursions in Afghanistan, among others, which in turn propagates rhetoric like 'western imperialist pigs' and other emotive lines that fuel the fire of fundamentalism. As one ideology seeks to dominate, resistance, of the bloody kind, becomes inevitable, replacing old conflicts between states of polar ideologies with new conflicts, between states (particularly the United States) and militant organizations. Hence while the age of the Cold War and the two Great Wars have long ended, optimists should not be too quick to take comfort as the embers of ideological conflict still burn, an ever-present threat against the temporary illusion of global calm

The Geneva Convention, the Charter of the United Nations, and the Nuremberg Principles, all point toward man's progress in efforts to eradicate conflict. We have come a long way, and our endeavours are laudable. But it is a long road ahead. The threats to peace that bedevil us today are not only numerous but completely uncertain: religious fundamentalism, tensions accruing from historical baggage and ideological differences. In closing, it is fit to scrutinize US President John F Kennedy once more. In spite of his lofty exhortation to peace, Kennedy was ironically no pacifist. In his short tenure as president of the world's most powerful country before his assassination, tensions between the US and USSR came to a head with the Bay of Pigs Invasion and the Cuban Missile Crisis taking place. This would tell us as much – a world without conflict is far from attainable.

Teng Boon Hwi, Gerald 13A301



Review

An eloquent and persuasive piece, using a strong blend of language and factual knowledge to drive your points across. Be wary of excessive rhetoric though.



'History is unreliable, being based more on opinions than on facts.' How far do you agree with this statement? (MJCJ2MBT14Q6)

“**W**hat is history? It is but a lie agreed upon!” declared Napoleon Bonaparte, the oft-invoked, skilled military commander and two-time French emperor who himself made a mark on history through his fiery conquest of Europe. Indeed, with the advent of advanced communications systems, the masses can now tell whether or not an event or perspective is a fabricated ‘lie’, and are empowered to decide whether or not to ‘agree’ with it. Despite the fact that great men like Napoleon may have manipulated historical facts to suit their needs, that the details of events are reduced to varying accounts or that concrete happenings evolve to become quasi-mythological stories, history has its inherent truth. None can deny that indelibly real events and personalities were the genesis of History and that opinions have been the main drivers of historians’ quest for truth. I contend that it is precisely because of the existence of myriad opinions that history is made more reliable through experts’ greater need to seek out the facts.

Those who eschew history may argue that it is altogether unreliable due to their belief that countless events’ details are so endlessly disputed over, and that personal opinions have dictated and distorted actual facts. As a result of Time’s debilitating effects on a people’s memory, the squabbles over minute details have descended into debates over fundamental truths. Instances include disputes over the validity of the authorship of hadiths, part of the canonical religious literature of Islam, second only to the holy Qur’an. This collective work comprising the sayings of the Prophet Muhammad had been ‘narrated’ by various prominent individuals in the years following his death, and many Muslims have questioned the authenticity of several narrations. As a result, even such details concerning early

Islamic history are influenced by individual opinion on issues of legitimacy. Similarly, events surrounding the life and death of Russia’s greatest Tsarina, Catherine the Great, are also plagued by unfounded rumours. The transformation Russia underwent under her reign gave rise to urban legends which cast her in an unfavourable light. Their circulation for a while warped much knowledge on Catherine, which had then been marred by the motives and opinions of her slanderers. I concede that history may seem to be totally unreliable if we are to be at the mercy of such baseless claims, and our inability to validate them compels us to treat history with caution. Yet, at the heart of the matter, it is the element of varying perspectives that have motivated historians to seek out what is real, and spurred them to sieve through the haystack of opinions to uncover the needle of truth, rendering history reliable after all.

The crux of my argument is that it is precisely because of Man’s natural tendency to provide differing opinions, accounts and perspectives that has induced historians to unmask and lay bare the cold hard facts. The sheer multitude of opinions have frustrated yet intrigued and motivated historians for centuries to find a satisfying and therefore ‘reliable’ version of events. Since classical antiquity, this has been the case; myriad accounts of the Greco-Persian Wars and differing stances on whether the gods played a role in human history led to the composition of ‘The Histories’ by Herodotus of Halicarnassus, a seminal work of historical study that cemented its writer’s place as the discipline’s founder. Although chronicles and sparse records existed before, they were inclined to exaggerate, were based on personal perspectives and were mythologised. Herodotus was the first to systematically categorise such disparate information and collate them into a coherent narrative. The Hegelian dialectic has also been a reaction to such vastly confusing opinions, and has sought to be an answer to the problem of reconciling opposing views into more acceptable explanations with a factual basis. Its thesis-antithesis-synthesis model has frequently been employed to rationalise the

interactions between historical forces and agents. Thus, history is not necessarily unreliable because it is sometimes disfigured by opinions, as these may provide the impetus for finding ways to ensure that reliable facts are being presented.

Still, detractors from my thesis may posit that history is unreliable since actual events and facts can be downplayed to fulfil vested interests or the personal opinions of dominant powers. In a disturbingly Orwellian circumstance, it seems as though much of history has been re-written by members of the ruling class to ensure that what they opine as being the 'real' version reaches the masses. This has been the case during the Reconquista, where Castilian monarchs of the 16th century sought to portray the Moors as bloodthirsty and uncivilised heathens. Historical records continued to perpetuate such a view until analysts realised that 800 years of Muslim rule in Spain had actually brought a flowering of the arts and sciences, with Andalusia becoming an intellectual centre of Europe and paragon of religious tolerance in a continent ripped by sectarian violence. Maoist China repeatedly espoused the rhetoric of the Chinese Communist Party being the saviours of a nation harrowed by oppression of the bourgeoisie, feudalism and foreign hegemony. In actual fact,

Mao's reign brought greater untold sorrow to the Chinese as millions died as a result of his disastrous projects. Furthermore, their propagation of the idea that the proletarian revolution was a natural part of human development as per Marxist theory reveals the imposition of their opinions on how history ought to unfold. Although I concede that history is written by the victors and in their terms, history is yet merciful to the defeated. In due time, history exonerates the works of the noble and the truth is made known, such as the case of statesman Zhou Enlai, who was vilified in the Maoist era for his economic pragmatism and liberal ideas, and Chinese history textbooks reviled him as such. Yet, it was only recently that a top-down revision resulted in him being hailed for what he truly was – the architect of China's economic miracle. Thus, the risk of opinion marring facts lies only when a strong, biased one is held by the ruling order that is powerful enough to rewrite history and sustain its own version. Otherwise, history itself does nothing; it is rulers who may make history unreliable by choosing to dilute it with their opinions on how things should have been.

Realists may also suggest that history is rendered unreliable by the fact that historians look at historical epics or legends for knowledge of the past, often coloured with the partial opinions of proud chroniclers. They argue that since these works are romanticised versions of history, they cannot be trusted and are instead based on iffy details and pure fluff. This is seen in national epics like the Persian *Shahnameh* or 'Book of Kings' that chronicles the development of Persian civilisation from the morning of the empire up to its Islamisation. The epic relates tales of heroic warriors and mighty emperors who shaped the course of history with the agency of magic and special powers. Yet, historians have taken this, along with ancient Greek sources, as viable references when studying the rise and fall of Persia, despite Ferdowsi's hyperbolic bias against the nation's enemies. The same is the case with the Arthurian legends, which tells tales of knights-in-shining-armor rescuing damsels-in-distress and recounts the adventures of King Arthur





and the Knights of the Round Table. Filled with fantastic episodes, it apparently seems an unlikely candidate for a reliable history of mediaeval England. Au contraire, I maintain that history's reliability is unassailable despite all this due to the element of truth these tales contain, in spite of them being watered down by personal opinions – hence historians' interest in them. For instance, archaeological findings at Fort Canning would have told us nothing of Singapore's glorious 700-year historical legacy, had it not been for the Sejarah Melayu. This quasi-mythological text narrates the tales of Malay kingdoms and empires, and is replete with fairy-tale-like elements, yet its account of the Kingdom of Singapura is rich fodder for historians who are studying the island's history. Similarly, Don Quixote de la Mancha, a farcical novel by Miguel de Cervantes is widely considered Spain's national epic and despite the author's satirisation of the Church and aristocracy, it is still an interesting documentation of 16th-century Spain, a society in flux. Therefore, due to the factual elements held in such opinionated and mythologised texts, history is still reliable even if drawn from legends, once the narrative embellishments are trimmed away.

Finally, history is reliable owing to the fact that it is after all a retelling of undeniable, plainly unmistakable events. The truth is that history is largely drawn from irrefutable happenings that are too patently clear, too universally acknowledged and too well documented to run the risk of being adulterated by opinions or censored. In the case of Nazi Germany, no one questions the fact that millions of the disabled, homosexuals, Jews and 'inferior races' were slaughtered, due to widespread reports and the existence of concentration camps with facilities capable of executing such atrocities. Despite the risk of figures being

exaggerated by Allied accounts or Zionists lobbying for sympathy, this is generally a fait accompli. Events like the French Revolution have had such far-reaching impacts in reshaping Western philosophical and political thought that its occurrence is never disputed, even though its circumstances would have been unusual if not unbelievable for its time. Phenomena such as these, widespread enough to negate the opportunity for individual opinions to alter its factors and details, stand a great chance of being remembered as they were. Thus, affairs and incidents can survive as facts if they were sufficiently prevalent and history constitutes many of such episodes. Therefore, as certain occasions in history are simply undeniable due to the sheer scale of their effects, it is ultimately reliable and not always based on opinion.

History bears witness to the maturation of humankind across the ages. Despite endless personally driven debates over the tales it tells, its ruthless disfigurement by usurpers and power hoarders and excessive embellishment in folk legends, one should never doubt its sacrosanct place as being a superior force, as perennial as Fate. Even Bonaparte would agree that history lives on and will always speak the truth through the many monuments – including those he himself built – that today stand, as Tagore put it, "like a tear, suspended on the cheek of Time".

Muhammad Faris Bin Joraimi 13A301



Review

The essay shows off the writer's impressive knowledge of history. Written with passion and conviction, the essay offers salient arguments which are well-supported by excellent examples. Well done!



ZENITH Brush Up!

Paper 1 Evaluative Keywords

The Secret of the Ages (2002-2013)

Very often, in Paper One of the General Paper, students get distracted by the topic of a question, thinking in terms of Science, or Arts, or Economics, and they overlook a more important issue – how the question is phrased. More precisely, certain words in a question provide the key to answering such a question and help the students identify the Point(s) of Contention, around which the whole essay should revolve.

We have identified 12 such key terms from 2002 to 2013 (Cambridge Papers), taken note of their frequency, and come up with a table of suggestions. Remember, when you write your essays, do keep in mind the words of William Carlos Williams...

*'It is not what you say that matters but the manner in which you say it;
there lies the secret of the ages.'*

Term + (Frequency)	Examples	Suggestions
1. ever/ never (11)	2012Q6. Is violence ever justified? 2011Q1. Can prejudice ever be eliminated? 2005Q12. The word failure should never be used in education. Discuss.	<ul style="list-style-type: none">✓ For 'ever' questions, normally we argue for 'sometimes'. Eg. 2012Q6, violence is justified at times (to protect, to discipline)✓ However, if we see another extreme word like 'eliminated' with 'ever' in 2011Q1, it is very possible to say 'never' Eg. 'Sadly, prejudice can never be eliminated'. Optimistic students may still choose to argue that 'prejudice may one day be eliminated' but it is a more difficult approach.✓ We normally disagree with 'never' Eg. 2005Q12, 'The word failure should be used in education, but sparingly and with caution'. (or 'sometimes')✓ STRUCTURE: normally we begin by exploring the extreme view 'never'.
2. key/ main/ only/ the answer to/ anything more than/ most/ just (16)	2009Q2. 'Only educated people should have the right to vote in elections.' What is your view? 2012Q11. 'The key criterion for good government is how well the economy is	<ul style="list-style-type: none">✓ Be careful to avoid simply glossing over the given factor in one paragraph, and going on to discuss all other factors without comparison with the given factor.✓ Remember to pay MOST attention to the given factor. Eg. If we say the key criterion for good government is not just how well the economy is managed, do not simply give



	managed.' Is this a fair assessment?	paragraphs of other criterion without comparing them with the economic point.
3. still/ have a place/ today (8)	2011Q6. In the digital age, do newspapers still have a role in your society?	✓ The trick here is to examine the characteristics of today's world , which, in this example's case, means you have to constantly explore characteristics of this digital age that threaten the role of newspapers.
4. would it matter/ is there any point/ how effective/ realistic aim/ possible	<p>2010Q3 <u>Would it matter</u> if all the performing arts venues in your society, such as concert halls and theatres, were closed down?</p> <p>2013Q3 Is there <u>any point</u> in trying to predict future trends?</p> <p>2010Q8 <u>How effective</u> are international efforts to ease the problem of global hunger?</p> <p>2009Q1 Is the elimination of global poverty a <u>realistic aim</u>?</p> <p>2013Q8 How far is <u>increased</u> prosperity for all a <u>realistic goal</u> in your society?</p> <p>2013Q4 To what extent is it <u>possible</u> to make the punishment fit the crime?</p>	<p>✓ <u>Would it matter</u> – Should not just explore immediate consequence but long term implications.</p> <p>✓ <u>Is there any point</u> – good, solid reasons must be provided, as well as an exploration into the possibility that there is no good reason for carrying out an action or that particular action might be futile</p> <p>✓ <u>How effective</u> – concrete evidence and facts on effectiveness are required. Consider whether the original objective has been met, is it effective in easing the problem for all or only some groups/in some cases, does the effectiveness come with a price, and are the efforts instead counter-productive.</p> <p>✓ <u>Realistic aim</u> – evaluate convincingly why and how it is actually possible to achieve the aim in reality.</p> <p>✓ <u>Possible</u> – must explore the extent to which something can or cannot materialize, and provide sufficient reasons for their views (be careful to avoid turning it into an advantage versus disadvantage question)</p>
5. how important (5)	<p>2013Q6 How important is it to save plant and animal species which are in danger of extinction?</p> <p>2010Q10 <u>How important</u> is it for people in your society to retain a sense of tradition?</p> <p>2008Q2 <u>How important</u> are dreams?</p> <p>2004Q11 <u>Discuss the importance</u> of religion in</p>	<p>✓ Give the extent of importance – could concede one or both of your OV's [ie. very important but not to the extent of extremity/excessiveness (result in some harm)].</p> <p>✓ Evaluate importance – is it irreplaceable? Are the benefits / contributions significant or tangible? Would there be tangible harm / consequences if it is absent?</p>



	society today.	
6. positive or negative/ good or bad/ problems or benefits (8)	<p>2009Q11 'Fashion is <u>as much a good thing as a bad thing</u>.' To what extent do you agree?</p> <p>2004Q9 Have multinational businesses had a <u>positive or negative impact</u> on your society?</p> <p>2005Q6 'Hosting major sporting events creates <u>more problems than benefits</u>.' Do you agree?</p>	<p>✓ When possible, try to look for criteria for comparison first and organise points according to the OV-R structure. If there is a stand-alone SV point, then place it at the end of your essay (after the OV-Rs).</p> <p>✓ Remember NOT to simply give a list of pros and cons without evaluation.</p>
7. increasing/ increasingly (2)	<p>2008Q8 Many developed countries are paying <u>increasing</u> attention to the needs of the disadvantaged. How far is this true in Singapore?</p> <p>2002Q9 Do you agree that city life is becoming <u>increasingly</u> unattractive?</p>	<p>✓ Remember to compare with the past in every paragraph, and show how the issue has 'increased' in the present. To take the stand of not increasingly would mean to say that it has stayed the same, or perhaps that it is even decreasing now. Comparison words like 'more' or 'greater' would help.</p>
8. better (3)	<p>2013Q1 'The world would be a better place if more political leaders were women.' What is your view?</p> <p>2006Q7 'The world would be a better place if everyone spoke the same language.' Discuss.</p> <p>2003Q9 Was life for young people in Singapore better in the past than it is today?</p>	<p>✓ Remember that 'better' implies some comparison. A comparison between present and future or past and present is required, and this comparison ought to be based on similar criteria.</p>
9. too (5)	<p>2008Q9 Discuss the view that <u>too</u> much faith is placed in statistics.</p> <p>2005Q7 Examine the claim that the world is <u>too</u> dependent on oil.</p> <p>2003Q11 Does the modern world place <u>too</u> much reliance on technology?</p>	<p>✓ Students must remember that 'too' implies that it is excessive and therefore leads to harm, and negative consequence. Not 'too' would then imply that it is justified, benefits outweigh the potential harm, and that it is even necessary.</p>

10. always (6)	2007Q1 'The view of the majority is <u>always</u> right.' Do you agree? 2006Q3 Does modern technology <u>always</u> improve the quality of people's lives? 2003Q5 Should medical science <u>always</u> seek to prolong life?	<ul style="list-style-type: none"> ✓ A risky move would be to agree with the extreme view 'always', and run the risk of contradiction, especially in the OV's. To agree with 'always' would be to say that the issue holds true all the time, everywhere, in all situations and for everyone. ✓ A safer approach would be to disagree with 'always', and begin with examining the extreme view and challenging it in the remaining paragraphs. However, do also consider the real-world context of the topic in order to come up with the most tenable stand.
11. really (2)	2007Q8 'The pen is mightier than the sword.' Can written language <u>really</u> be so powerful? 2005Q4 Do the arts, such as music and literature, <u>really</u> play a significant role in Singaporean society?	<ul style="list-style-type: none"> ✓ DO NOT overlook the assumption behind 'really'. Explore the doubt first. To include the 'really' in the evaluation of the essay, you could use the OV-R structure throughout the essay, or begin with OV-Rs and end with solid SVs
12. should/ justified (26/4)	2013Q12 How far, in your society, should unpopular views be open to discussion?	<ul style="list-style-type: none"> ✓ Please DO NOT just provide your observations without looking for reasons. DON'T end up preaching. ✓ Instead, after making a stand, focus on providing several well-supported reasons for your stand, often based on long term or wide ranging benefits or problems. Good to begin with SVs then OV's. For 'should' combined with an 'extent', some concession to the OV's can be made, considering extreme or harmful situations. Eg '... not to an extent that...'



ZENITH Abstract

Mathematics

It may seem very strange to be discussing the topic of Mathematics in the Zenith – which is after all, supposed to be about GP and not Math. However, this topic has been tested at the A levels no less than 6 times in the last 11 years! Take a look at the questions below.

1. 'Unlike the Arts, such as writing or music, Mathematics lacks the capacity for creativity.' How far do you agree with the statement? (2013 Q2)
2. Consider the view that mathematics possesses not only truth, but supreme beauty. (2012 Q7)
3. Can mathematics be seen as anything more than a useful tool in everyday life? (2010 Q12)
4. Discuss the view that too much faith is placed in statistics. (2008 Q9)
5. Consider the view that the study of mathematics is intellectually satisfying, but of little practical use. (2005 Q10)
6. 'Statistics measure everything but prove nothing.' Discuss. (2003 Q10)



In this abstract, we will cover the following:

- | | |
|-----------------------|-------------------------|
| I. What is Math? | III. Beauty of Math |
| II. Math Applications | IV. Limitations of Math |

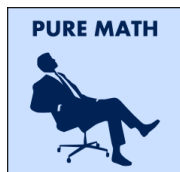
You can use the information below as starting points to think about Mathematics. Do also conduct your own research to tackle the A Level questions above.

What is Math?

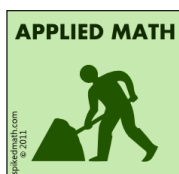
You're definitely familiar with Mathematics as the subject you study dealing with calculations. However, do you know that it is also a science that deals with the logic of shape, quantity and arrangement?

More importantly, Math is all around us, in everything we do. It is the building block for everything in our daily lives, including mobile devices, architecture, art, money, engineering, and even sports. Every civilisation, whether the most primitive or the most advanced, used Math to fulfil its wants.

There are two types of Mathematics: Pure Mathematics and Applied Mathematics.



Pure Mathematics is the study of mathematics, not for any practical purpose, but simply for its own sake. It is usually the study of abstract notions with respect to their intrinsic nature, rather than being concerned with how they manifest in the real world. (Think of the topic of *Complex Numbers* in your Math syllabus!)



Applied Mathematics is the branch of mathematics concerned with the use of Mathematics in other fields. For instance, *Statistics* is a topic where Math is used as a method to study the characteristics of different domains; *Game Theory* relies on Mathematics to explain phenomena in Economics decision-making.

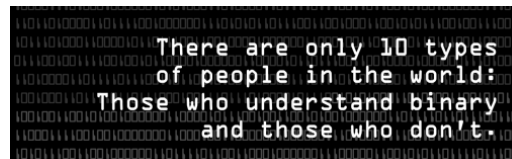
While the two branches of mathematics seem distinct at first glance, there is much overlap in practice. In order to develop accurate mathematical models for describing the world, many mathematicians draw on tools and techniques considered to be in the realm of pure mathematics. Conversely, many mathematicians are inspired by natural and social phenomena in their abstract research. Ultimately, there is no clear line separating pure and applied mathematics.

Applications of Math

Mathematics is used throughout the world as an essential tool in many fields, including natural science, engineering, medicine, finance and the social sciences. From the most basic functions such as counting and measurement, to complex functions like scientific computing and 3D modelling, Mathematics is the cornerstone of our world as we know it.

Some fun facts about Math:

1. Do you know that much of the digital age is based on the binary system of 1 and 0? That's just 2 digits that are arranged in different combinations that translate to a language that powers all your computers!
2. In science, Maths is used in crafting complex models that predict real world events. That means that your weather forecast for tomorrow is also based on some algorithm crafted by a team of mathematicians and scientists.
3. Probably more familiar to you are the surveys and statistics you commonly see in the newspapers and articles. While some are tabulated using simple Math, some require complex mathematical formulas to account for all the possible variables and uncertainties.
4. An extension of all that statistics is in a field called actuarial science that studies the probability of real world occurrences. The experts in this field try to relate various things like your age to your probability of falling sick, which ends up affecting very practical things like the insurance premiums you pay.
5. Even gambling, commonly seen as a game of luck, can also be analysed from a perspective of statistics and probability. Expert poker players are known to memorise probability tables to help their decision making during a high stakes game!



Fascinating isn't it? Look around you again, you might find many more areas that are based on the application of Mathematics!

The Beauty of Math

With that said, many people do appreciate Mathematics. Some mathematicians in particular derive aesthetic pleasure from their work and Mathematics in general. They often express this pleasure by describing mathematics as beautiful.

Some reasons include:

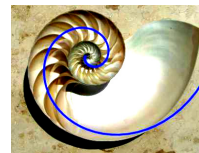
1. Beauty in Simplicity: Mathematicians take pride in an elegant proof - something simple and succinct that can be easily generalised to solve a family of similar problems. Some of these proofs are our well known in our society, such as the famous $E=mc^2$



2. Mathematics and Art: Mathematics has started to be used in the Arts. Computer-generated art is based on mathematical algorithms. Some artists also draw on mathematical models and structures as a source of inspiration. [Dutch graphic designer M.C. Escher created mathematically inspired woodcuts, lithographs and mezzotints, featuring impossible constructions, explorations of infinity, visual paradoxes and tessellations.]

3. Maths in Music: Music is based on the frequency of sound, while the notes are related through mathematical ratios. A musical symphony could arguably be called an artistic representation of Maths as well!

4. Maths in Nature: Mathematical patterns can be observed everywhere in nature, from the symmetry in our faces, to the Fibonacci spirals in shells, to the Golden Ratio in flowers.



Limitations of Math

Of course, as wonderful as Mathematics is, it is not omnipotent.

1. Maths is often regarded as a precise and accurate discipline, with definite rules and logic. In that sense, Maths can sometimes be seen as rigid and inflexible, lacking creativity. After all, $1 + 1$ will always be equal to 2.
2. In the same vein, Maths is also seen as a highly objective tool relying on cold logic, such that it often lacks room for emotion and the human touch. We often see this in statistics, where the loss of precious lives is reduced to mere digits.



3. The language of Maths can be difficult for many to understand, requiring specialised knowledge and understanding. Despite its wide applications, an interface is often needed to simplify its use for the average person, just like how we can use computer software these days without having to understand programming codes.
4. Ultimately, Maths is still a tool, albeit a very useful one. While Mathematics and its various sub-branches offer a variety of options to help us understand and solve problems, it is still up to mathematicians to select the right tool for the job - a challenging task at times given the complexity of real world problems. Just consider the struggle of selecting the right Algebra



formula when solving a Maths problem and you get the picture.

To end off, here are some notable quotes regarding Mathematics from various philosophers, scientists and mathematicians which can be used in an essay on Math:

Pure mathematics is, in its way, the poetry of logical ideas. - Albert Einstein

Mathematics is, I believe, the chief source of the belief in eternal and exact truth, as well as a sensible intelligible world. - Bertrand Russell

The laws of Nature are but the mathematical thoughts of God. – Euclid

The highest form of pure thought is in mathematics. - Plato

The mathematical sciences particularly exhibit order, symmetry, and limitation; and these are the greatest forms of the beautiful. - Aristotle

The essence of mathematics is not to make simple things complicated, but to make complicated things simple. - S. Gudder

Mathematics is the language with which God wrote the Universe. - Galileo Galilei





ZENITH Feature

Global Education Seminar Series – Sally Silverstone



In April this year, the Global Education Committee invited esteemed Biosphere researcher, Sally Eva Silverstone, to have a seminar in Meridian Junior College. In the seminar, she not only discussed with students her views on sustainability but also shared her experiences working and living as a researcher in the Biosphere 2 in Arizona, US from 1991 - 1993. She lived and worked in a “miniature earth sealed under glass” and was responsible for the overall management and coordination of the eight-person crew, as well as for managing the half-acre agriculture system that fed the crew during the two year closed mission.

Over 60 students attended this seminar, two of whom shared their reflections below:

Prior to attending the seminar, I thought that the Biosphere II was a fantasy made up by environmentalists. Needless to say, the seminar was an eye-opener. It was a rare opportunity to hear about the Biosphere II first-hand from one of the first inhabitants of the facility.

Some of the more interesting issues Ms Silverstone brought up were how difficult it was to sustain a miniature rainforest and the hardships they had to go through to make sure that the nutrients were kept within the sphere. Many perceive scientists to be almost all-knowing when it comes to scientific knowledge. However, one of the problems she shared with us was how the oxygen level within the Biosphere II had dropped to almost dangerous levels while they were in the sphere, although her team managed to pull through until the end of their two year stint.

It was possible for the Biosphere II to be self-sustaining because its inhabitants had to recycle all the nutrients and materials – nothing could be wasted. Given the rapid improvement in technology, it would make sense that the world today should be able to be more environmentally-friendly. However, environmental efforts are not as rigorous as one would hope to be. This could perhaps be attributed to increasing needs for resources as the world population continues to increase; or perhaps the neglect of Mother Nature simply because the effects of our not-so-eco-friendly lifestyles are not amounting to something tangibly dangerous yet. Nevertheless, the creation of the Biosphere II and the results it yielded are definitely worth learning from as it provides a silver lining, that saving the environment is a possibility, not a fantasy.

Low Kai Kang 13S112

The “Biosphere 2” may not be as magnificent as “Biosphere I” but it is definitely just as fascinating.

Firstly, I learned that within a closed system, whatever we do generates feedback and everything we release into the environment will stay within the environment. Hence, it is essential that we recycle or manage these materials appropriately to prevent creating unnecessary damage to the system.

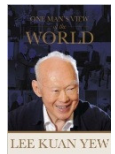
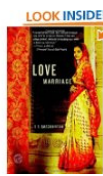
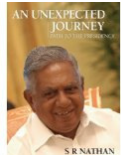




In addition, the most intriguing part is definitely the experiences shared living in Biosphere 2, especially how the residents, or “Biospherians”, lived within this system for two whole years and how difficult lessons had to be learned when the mistakes these Biospherians made resulted in immediate negative impacts. Indeed, it was interesting to find out how they grew their food, managed their human waste and rationed their limited resources.

The seminar is very relevant to topics such as Environment as it teaches us about the importance of sustainability. The pollutants released into the environment will not disappear but the resources we consume will. Thus, we should really learn to protect and preserve the only Earth we have. After all, we are all Biospherians.

Soo Wen Wei 13S112

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Title One man's view of the world Author: Lee Kuan Yew Publisher: Singapore: Straits Times Press, 2013. Call No.: 909.83 LEE Summary: Lee, with his wealth of knowledge on international affairs, shares on what makes a society tick.	
Love marriage: a novel Author: V.V. Ganeshananthan Publisher: New York: Random House, 2008. Call No.: 813.6 GAN Summary: In this globe-scattered Sri Lankan family, we speak of only two kinds of marriage – the first is the arranged marriage, the second is the love marriage. In reality, there is a whole spectrum in between but most of us spend years running away from the first towards the second.	
An unexpected journey : path to the presidency Author: S. R. Nathan Publisher: Singapore: Editions Didier Millet, 2011. Call No.: 959.57 NAT Summary: In this exceptional book, Nathan shares his personal journey, set against the backdrop of modern Singapore history.	
I can read you like a book: how to spot the messages and emotions people are really sending with their body language Author: Gregory Hartley and Maryann Karinch Publisher: Franklin Lakes, N. J. : Career Press, 2007. Call No.: 302.222 HAR Summary: Hartley, with his experience in military intelligence and Karinch, with her experience in speech and drama, share with you the power of body language.	
The Hillary step ; from Everest to the South Pole Author: Peter Hillary and John E. Elder Publisher: Edinburgh : Mainstream Pub., 2004. Call No.: 796.522 HIL Summary: This is a story of Peter Hillary's physical and emotional journey across the icy wastes of Antarctica, a place where the thoughts and memories of a lifetime were called forth by the blank slate of the Antarctica snows.	
Three cups of tea : one man's mission to promote peace...one school at a time Author: Greg Mortenson & David Oliver Relin Publisher: New York : Penguin Books, 2006. Call No.: 371.82 MOR Summary: Drinking three cups of tea in Pakistan and Afghanistan means – the first you are a stranger, the second you become a friend and the third you join the family. Moved by the inhabitants' kindness, Mortenson promised to return and build not one, but fifty-five schools.	
An act of peace Author: Ann Widdecombe Publisher: London : Orion, 2005. Call No.: WID Summary: Klaus-Pierre never knew his father. Son of a young French woman and a senior German officer, Klaus-Pierre is loved by his German family but knows little of his French relatives, patriots and resistance workers who turned their back on his mother. He tries to make his own 'Act of Peace' with his mother's family. The result is a horrifying confrontation between the two families when they meet accidentally in Provence.	



ZENITH Notices

Call for Contributions 2014

The ZENITH 2014 series is always looking out for interested writers to contribute their writing and reflections on issues and topics of relevance. The editorial team is calling for contributions for 2014:

Meridians Write

Both seniors and freshmen are welcome to submit entries on topics of current relevance, issues that interest you or even creative pieces of work, such as book reviews, poems, short stories or even cartoons or other illustrations relevant to GP or Literature. You may also select from your best pieces of writing from the work you engage in, both in and out of class. You can submit your writing through your GP tutors or directly to the editor.

Please submit all completed works to the Editor *any time* throughout the year. (NB: ZENITH is published in May & September yearly.)

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