ZENITH 2018

Welcome to ZENITH's first issue for 2018! We bring you an exciting spread of the essays written by your seniors.
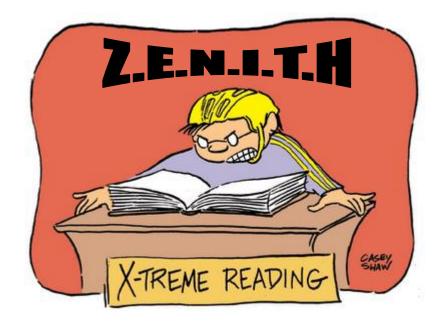
A big thank you to all the students who have contributed good essays, reviews, poems and other assorted pieces of work. You have indeed demonstrated what good writing is, and your breadth of knowledge displayed also underscores the importance of a consistent reading habit.

All the best for the Mid-Year Exams!

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

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...*in* ZENITH

Essay Selection

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.

'Any adaptation of a novel for film, television, or the theatre is never as effective as the original.' Discuss. (2016 A lvls Q1)

What do the movies *Forrest Gump*, *Interview with the Vampire* and *The Shining* have in common? All three were movie adaptations of novels, and much loathed by their original authors for mangling their creations. Similarly, forums abound with bad reviews from angry, die-hard fans of the original novel, who will claim that the said adaptation has 'butchered' the original content and has not done it justice, sometimes even when the movie or television adaptation is commercially successful. We may be quick to dismiss such grievances, but could it be possible that these fans are perhaps stating an undeniable truth about such adaptations? Will they really never be as effective as the source material they are based on? Despite the merits film and television adaptations appear to have, they will more often than not fall short.

Firstly, adaptations will never match up to the novels they are based on because novels possess exclusive literary features and devices which adaptations cannot convey. When employed, they help readers to better appreciate, interpret and analyse written work. As they are, by principle, meant to be read to be understood, they inherently cannot be portrayed properly on screen. Any attempts to adapt them into another medium will either hinder their effectiveness or, worse still, be rendered completely nonsensical. For example, the novel *Catcher in the Rye* by J.D. Salinger is unique in a literary sense that the entire narrative is confined within the protagonist's mind, much more than the ordinary first-person novel, with great detail placed on cognitive thought processes and linkages. A live-action adaptation made on this principle will never be as effective in bringing this out, due to the sheer complexity in doing so, and also how boring such a premise would be in live-action due to the narrow, confined perspective. This was precisely why any attempted adaptations of it never followed through, alongside Salinger's personal reservations after a botched film adaptation of another story of his which further reinforces this point. Similarly, in the case of the novel *Even Cowgirls Get The Blues* by Tom Robbins, the film adaptation flopped miserably because it was unable to properly adapt the novel's stylistic features of loopy run-on thoughts, philosophical musings, bizarre extended metaphors, and meta-references that were hilarious and dreamlike on text. The novel was meant to be similar to a conversation between Robbins and the reader, where he could burrow into his peculiar ideas at length while the readers could meander back and forth through them, looking for sense with Robbins helpfully explaining what 'the author' is attempting. However, the film adaptation ended up turning it into more like a drunken, overbearing monologue, stripped of much of the explorative depth and colourful language. These examples go to show the complexity of literary features and devices, and how adaptations cannot match up because by principle it is not possible to properly deliver and reinterpret them, despite how crucial they are in the appreciation of the story. Thus, adaptations cannot be as effective as the novels they are based on because they are unable to convey the same depth brought about exclusively by literary features and devices.

Furthermore, adaptations cannot be as effective as the original as the creative license of the former betrays the original essence of the established narrative. Creative license is often, if not always, necessary in adaptations to either make some distinction from the source material, lest they become redundant, or to make

up for things that cannot be transferred to a live-action medium. However, creative license in principle results in deviation between the adaptation and the true essence of the novel, which affects the experience and enjoyment. For example, the film adaptation of the novel *Percy Jackson and the Lightning Thief*, which was essentially about Greek mythology blending into the modern world, was relatively successful at the box office, but there was a large critical consensus that the creative license of the adaptation with regards to the plot made the film 'largely inaccurate', resulting in a largely different experience that was met with mixed receptivity. As for the case of the film adaptation of *The Seeker: The Dark is Rising,* a fantasy novel, creative license had a more noticeably destructive effect on the film's success, as it had altered many key elements of the setting, characters and plot, which made the experience of watching it pale in comparison to reading the highly successful novel it was based on. These instances show the destructive effects of adaptations' creative license on their effectiveness, as it leads to deviations from the source material that drastically alters the quality of the experience it provides or even changes it altogether. Thus, adaptations can never be as effective as the novels they are based on because of this unavoidable element of creative license.

Detractors to my stand argue that adaptations can be as effective as the source novel as the inevitable constraints of time that come with them can force key ideas to be expressed in a more succinct, straightforward and understandable way. Unlike novels, which can afford to delve into detail as there is no inherent time component in reading as many pages as the author chooses to write, adaptations must be able to condense and deliver within their limited running time. This results in shorter but more captivating and meaningful moments as this limited time cannot be wasted. The significantly condensed stage adaptation of *To Kill a Mockingbird* was successful in this regard, with critics coming to a consensus that it was able to accurately convey the key

themes of racism and prejudice effectively, and even going as far as to actually racially segregate audience members to heighten the experience of the themes even further. In this regard, it can be said to be just as, if not even more effective, than the source material in the conveying of its message. The film adaptation of *The Age of Innocence* by Edith Wharton was also able to capture the novel's key ideas on society, class and passion sufficiently and was even thought to be more enjoyable than the novel itself among modern audiences who could not really appreciate the complexities and dryness in writing. While I do acknowledge the merits of this argument, more often than not it is precisely this element of 'time constraints' in adaptations that makes them ineffective compared to the original novel, because certain details are inevitably cut out, and this results in a watered-down experience that portrays ideas, characters or the plot incorrectly. For example, the animated television adaptation of the popular Japanese light novel series *Sword Art Online* by Reki Kawahara was guilty of cutting out key moments in the story that would have portrayed the main heroine, Yuuki Asuna, as a more independent figure compared to the largely inaccurate and widely criticised damsel-in-distress she was depicted as in the said adaptation. Similarly, another television adaptation of another Japanese novel series, *Fate/Zero* by Gen Urobuchi, had also removed many scenes that explored the backstory of the antagonist, Gilgamesh, due to time constraints, resulting in a less favourable portrayal of his character. These examples go to show how adaptations are not always able to succinctly cover the novel they are based on due to time constraints. Thus, this proves that the aforementioned argument on adaptations being able to capitalise on their limited time to deliver a 'short and sweet' experience that lives up to the novel does not always hold true.

Another opposing view made by movie lovers is that adaptations excel at using visuals to capture, emphasise and communicate certain key ideas of the story in an instant, which novels would not be as good at doing. Given that

adaptations engage with the audience visually and audibly, it is able to convey the message of the story more efficiently and preserve the emotional impact as compared to spreading out too thinly in textual form. For example, in the film adaptation of *The Lord of the Rings* and the theatrical adaptation of *The Wizard of Oz*, both of their respective source materials featured vast, colourful fantasy worlds as their settings, and both adaptations were praised for being able to utilise visual effects and cinematography to capture these elements of magnificence much more realistically than the long descriptions in their respective novels, which seemed to diminish the impact of the said settings. To modern audiences, novels, which are long and wordy even when read aloud, may be much less immersive and intoxicating than films and theatre – no matter the quality of the adaptation. This argument definitely holds merit, especially when the strong audio-visual culture enabled by the rise of digital technology has created a generation that is better reached through film and television than books. However, it does not necessarily hold true all the time and is largely dependent on the budget and skill of whoever is in charge of the adaptation in question.

Lastly, adaptations can never match up to the effectiveness of the original as external motivations and interests may hinder and adversely affect their quality. Profit-driven companies create adaptations to leech off of the original novel's fan base, which would be more than willing to spend more on experiencing their favoured novel in a different medium. This has led to a common trend emerging, whereby popular movie adaptations series would split the last book of the novel series into two or more movies, which non-adaptations are already guilty of. For example, adaptations of *Mockingjay, Breaking Dawn* and *The Hobbit* were split into several parts, with the intention of reaping more profits from their fan bases. This resulted in the flow of the respective stories being adversely affected after being spread too thinly across the several parts or being plain inconsistent in quality, which of course affects the enjoyment of watching these adaptations. Thus, the

external motivations of those involved in producing novel adaptations often interfere and ruin the enjoyability of the experience it was supposed to convey from the original source material.

To conclude, there are many ways for adaptations to go wrong, the most dangerous, perhaps, being a dilution of the initial concepts that got readers so excited about the books in the first place. Adaptations have inherent, inevitable flaws by principle that will make them fall short of the original novels they are based on. Not all the ideas and messages in the source material can be adapted on screen or on stage to the same effect, so there will always be something lacking in adaptations. Has any bona fide book lover ever truly been fully satisfied with an adaptation? The relationship we have with the novel is personal and special; the relationship we have with the adaptation is more distanced from that, more passive, and certainly less demanding of us.

Pineda Sean Ravi Evangelista 16A302

Review
Overall, an essay written with passion and convincing arguments. The wide range of interesting and appropriate examples reveal the writer's impressive wealth of knowledge concerning this subject matter.

Considering the money involved, should developing countries be allowed to host major sporting events? (2016 A lvls Q4)

Hosting major sporting events such as the Olympic Games and FIFA World Cup is often associated with monetary gains for the host countries, as hundreds of thousands of fans flock to watch the games in the flesh. However, the pressure of pulling off such a large-scale event that will be broadcasted worldwide can result in countries putting unnecessary strain on their budgets in the process of setting up ample infrastructure for the event. A notable example would be Singapore,

which exceeded its original budget of $104 million by three times when it hosted the inaugural Youth Olympic Games in 2010. Considering the fact that Singapore, as well as many other developed countries such as the United Kingdom and Spain, have fallen prey to overspending on hosting major sporting events, should developing countries, who have more pressing issues to address, be allowed to host major sporting events? I believe so, for the benefits that hosting brings outweigh the costs, provided that governments exercise frugality and prudence in their budget allocation.

First of all, a range of permanent and temporary jobs will be created in order to meet the demands of the many industries involved in the preparations for the sporting event, such as in construction and hospitality. The construction industry would be involved in the building and maintenance of competition arenas as well as critical transportation facilities such as railway lines, while the hospitality industry has to expand to provide accommodation for both athletes and spectators alike. This creation of jobs can help to mitigate unemployment and fiscal instability, which are two of the most important economic goals of a government. Although the jobs created are likely to be low-skilled work, for instance manual labour in the construction industry, they will still have a significant impact on the economy of a developing country due to the high volume of jobs being churned out. An example would be that of East London, one of the poorest regions in the UK, whose unemployment rate fell by 1% to 8.6% between 2011 and 2014. This drastic change in employment levels can be credited to the jobs generated in the period of the London Olympic Games in 2012. In addition, the Olympics brought more than £9 billion of funds to East London, much of which went into the investment of infrastructure and transport, thus improving standards of living in the area. Hence, developing countries should be allowed to host major sporting events due to the large number of jobs that could potentially be generated to drive the economy.

Secondly, developing countries can expect to rake in tourism revenue from ticket sales to the sports matches, as well as spending on accommodation and transportation. This additional revenue would have a notable impact on the Gross Domestic Product (GDP) of a developing country and increase the country's potential to improve its financial situation. One example would be Brazil, who hosted the FIFA World Cup in 2014, amidst recovering from the 2008 Global Financial Crisis. The Central Bank of Brazil estimated that the foreign visitors spent US$365 million throughout their stay. The hotel sector also saw an increase of 45% on the expected occupancy rate for the first week of the World Cup. This lends credence to my point that developing countries have much to gain financially from tourism by hosting major sporting events. Furthermore, with enough time and effort invested on such an endeavour, a country can cement its position as a sports tourism destination. One example would be the Australian city of Melbourne, which has gained immense exposure as a sport tourism destination through a strategic use of sports by hosting international sporting events such as the Rugby World Cup and the Melbourne Cup for horse-racing. Though Australia is not a developing country, it shows how sports tourism could be much more than just a fleeting event and actually contribute regularly to a country's financial reserves.

Thirdly, hosting major sporting events can raise the profile of a developing country as the country will be placed under international spotlight leading up to and during the games. This can leave a long-lasting positive impression of the city on the international community even after the event has ended, particularly in the eyes

of foreign investors and prospective tourists. This ensures that the potential financial benefits continue to be reaped. For instance, the hosting of Giro D'Italia, one of cycling's Grand Tour races, in Northern Ireland created more interest in the country as an activity holiday destination. Closer to home, developing countries such as Myanmar, Vietnam and Thailand often benefit from successfully hosting the SEA Games as they boost the standing of their respective countries and improve ties with others in the region. Similarly, South Africa experienced a boost to its reputation when it hosted the 2010 FIFA World Cup. A study conducted by FIFA on South African residents and tourists showed that 91% of South Africans believe the event united the population, which is extremely significant for a country who had been under apartheid, a system of institutionalised racial segregation and discrimination, for forty-six years. However, I concede that the spotlight on the host country may potentially expose unethical practices and other scandalous news. An example would be the diving pools in Rio de Janeiro that turned green after hydrogen peroxide in the pool reacted with the chlorinated water. Instead of taking action immediately to replace the pools' water, the officials maintained that the colour was due to algae growth and was not a source of concern. The officials finally rectified the problem following much international criticism. Yet, I still believe that developing countries should be allowed to host major sporting events because the potential boost to their reputation is more significant than the occasional lapse in planning. As seen in the case of the 2016 Rio Olympics, many acknowledged it as a successful host by the end of the Games. This goes to show that hosting a major sporting event could impart important lessons for the host country, as long as it is willing to learn.

Some detractors to my stand will argue that the high financial costs involved in the preparations as well as the execution of the sporting events will put a strain on the government budget and may even force governments to divert funds that were originally intended for the betterment of citizens' quality of life to the hosting instead. This would cause conflict with a government's objective of satisfying its people's needs at the forefront. For example, Greece experienced a major financial deficit of 6.1% of its GDP after hosting the Olympics in 2004 as its expenditure on the Games came to twice the original budget. This was because the committee that planned the Games decided to build permanent stadiums, which were never used again, instead of temporary ones like those in London when it hosted the 2012 Olympics. However, this would not be the case if Greece had relied on private investments in order to fund its expenditure instead of falling back on public funding and unsustainable loans. Barcelona, Spain, which hosted the 1992 Olympic Games, worked hard to attract private investments, which funded 36.8% of the Olympics building work. Due to the foresight of the Spanish government, the country was able to achieve sustained economic growth after hosting the Olympics. Hence, I believe that developing countries should be allowed to host major sporting events in light of the potential for economic growth.

In conclusion, I strongly stand for the idea that developing countries should be allowed to host major sporting events as I believe that the countries stand to reap the fruits of investment in the long run. With that said, the government of developing countries also have a part to play in ensuring that there is sound organisation and budget allocation to minimise the unnecessary risks to this venture. If the opportunity is harnessed properly, being the host of a major sporting event could bring in much needed funds and a greater standing on the global stage.

Jasmine Chin 16S111

Review

A very informative essay with numerous examples and statistics, the essay defends the stand in a nuanced and persuasive manner.

Considering the money involved, should developing countries be allowed to host major sporting events? (2016 A lvls Q4)

Mention the Olympics, the Commonwealth games and the FIFA World Cup and what comes to mind are images of intense, nail-biting competition, passion, determination and sheer sporting beauty. But often what goes unnoticed are the billions spent on the construction of grand sports complexes and stadiums, billions which could have been better utilised in developing countries to bring about tangible changes in the well-being of the citizens. Developing countries are often unable to even provide basic welfare services to their citizens. In such cases, hosting a major sporting event would act as a further impediment to a country's ability to look after its own citizens and ensure their well-being. Although my critics might say that this spending may benefit the host countries by attracting tourism and funding new infrastructure, I would contest that idea as this tourism would at best be temporary and would come at a far greater opportunity cost of bettering social services. Thus developing countries should be restricted from hosting major sporting events.

Firstly, we need to recognize that the cost of hosting a major sporting event runs in the billions. In fact, the average expenditure on the Olympics has increased by over 40% in the last two decades. The burden these events impose on the resources of a country is too great especially in the case of a developing country. A developing country is one which already faces a paucity of resources and capital to provide a respectable standard of living for its citizens. I believe that the duty of care the government has towards its own citizens should be paramount to any international obligations towards hosting events, especially when the people are deprived of the basic essentials such as healthcare or housing. When the government is elected to office, they make a social contract to ensure that their citizens' welfare would be of utmost importance. In fact, when the government fails to do so, social unrest and protests inevitably follow. Take Brazil for example, where the Rio Olympics of 2016 came at a huge cost in the form of public protests, violence and national economic instability to the point of bankruptcy. This reaction largely stemmed from the fact that 22% of the population of Rio de Janeiro live in shanty towns – also known as favelas – which are unfortunately hubs for disease and criminal activities. In lieu of all these problems, and many more, Rio de Janeiro still took on the challenge of hosting the Olympics, which only caused the state to declare bankruptcy and further worsen the already appalling conditions of its citizens. It was thus little surprise that this funnelling of billions to the Olympics was met with severe backlash from citizens, further aggravating the issue. Thus governments should aim to prioritize their own citizens' welfare over the hosting of a major sporting event.

Optimists might argue that hosting such games often brings about huge economic gains in the form of tourism. By publicising one's country on one of the biggest platforms of the world, one is able to attract a plethora of people. Admittedly, there is a direct correlation in increase in tourism with the hosting of events like the Olympics and the World Cup. Tourism increased in India two-fold in 2010 when they hosted the Commonwealth Games, boosting tourism revenue from US$70 billion to around US$120 billion. Thus, when seen from this angle, these benefits simply cannot be denied. However, I would disagree with these optimists on multiple levels. Firstly, the hype created by such major sporting events is extremely short-lived and quickly forgotten. Take the example of India again: although in 2010 tourism revenue reached an all-time high, it quickly dipped to the usual levels in 2011. Secondly, the creation of a tourist destination can be done through other more enduring means such as revitalization of traditional arts, restoration of monuments and preservation of culture.

These methods in fact create a more long-term and sustainable tourism culture in the country, which is a much more prudent move rather than putting all of one's eggs in a single basket. Furthermore, hosting major games can actually worsen the profile of a country under the scrutiny of media coverage, where the media highlights every problem the host country is facing. Take the example of the 2014 Sochi Winter Olympics. Extensive media coverage, in fact, shed light on the extent of the problems the country faced in terms of inefficiency of building infrastructure and widespread corruption. Photos of poorly built facilities went viral while news media outlets such as the New York Times and the BBC drew the world's attention to concerns such as the brutal treatment of the LGBT community in Russia as well as doping scandals. All these problems are bound to overshadow many of the beautiful cultural and aesthetic places of a country and inevitably deter tourists in the long run. Thus, I do not believe that hosting major games improves a developing country's profile as a tourist destination; in fact, it worsens it.

It might also be argued that hosting major sporting events not only creates thousands of jobs for locals but also creates infrastructure which can be properly utilised by the citizens in the future. Often, developing countries lack the infrastructure such as stadiums, housing and proper roads, and hosting a major sporting event could be a catalyst for the creation of the same and bettering the lives of thousands in the long run. Even if it is just a city in a developing country, much good would have been done. One example would be that of Barcelona, which saw great success in hosting the 1992 Olympic Games and even greater prosperity post-Games: unemployment levels fell dramatically, the housing market was revitalised, and the construction industry boomed. Might these optimists have a point? I would disagree with that. In modern times we see extremely intricate stadiums with complex designs and structures, the creation of such structures requires extremely specific technical knowledge and experts in the particular field. In fact, states often hire international organisations with professionals for designing and creating stadiums. With each major sporting event setting the bar higher and higher, future hosts are forced to continue pulling out all the stops to ensure that they too will impress viewers and audiences all over the world. Thus, it is extremely unlikely that the locals of a developing country would even be employed by these companies. Not only that, the maintenance of a stadium of an international standard is also an extremely costly affair. Whether it is replacing equipment or repair, all these expenses just funnel away funds from more pertinent issues. A look at the deserted Olympics facilities all over the world is just proof of that. Furthermore, the creation of infrastructure such as stadiums is not what is needed. Instead, it is the creation of schools, factories and hospitals that will be what hoists a developing country out of poverty. Thus the benefits of jobs and infrastructure are extremely limited and highly unlikely.

Finally, developing countries often showcase an extremely high incidence of corruption. This corruption only worsens the expenditure of the government on these sporting events. In fact, developing countries on average end up spending more on such events than developed countries. Developing countries often have such a high incidence of corruption due extremely low wages of civil servants and poor law enforcement. Often enough the police themselves take bribes in such countries and allow for such a lawless state of affairs. This analysis is given credence by the fact that India ended up spending US$1.8 billion, more than five times their allocated budget of US$250 million on the Commonwealth Games of 2010. The poor governance in India cost the citizens heavily, as money which could have been utilised to improve housing conditions just a few kilometres away from the Commonwealth Games Village was flushed down the drain due to poor administration and governance. Thus the structural problems in developing countries are a further impediment towards being able to host sporting events, which might end up costing far more than they actually were planned for.

In conclusion, embarking on hosting a major sporting event may have its benefits; however, its detriments outweigh any of its benefits, especially for developing countries. With the immense amounts of money involved, it is better services and proper development that is far more crucial than an international sporting event.

Vedant Sandhu 16S111

Review

Eloquently reasoned with layers of arguments, the essay is also richly supported by a variety of illustrations.

'Human need, rather than profit, should always be the main concern of scientific research.' Discuss. (2016 A lvls Q5)

'We did not create this drug for the Indian, we created it for the Western patients who could afford it' – a shocking statement made by the CEO of pharmaceutical giant, Bayer during an interview about drug patents. In the capitalistic world that we live in today, such statements, while shocking, hold some truth. For highly successful research firms, profits and cash flow are like blood and water to a healthy body. They are deemed as absolutely essential for life, but they are not the very point of life. Thus I believe that while profits are important for scientific research, it should not be its main concern and human need should take precedence over profits.

Human need rather than profit should be the main concern of scientific research as science is meant to benefit humankind. When firms are profit-driven, it often leads to a situation where the poor are left behind and income disparity is widened. More often than not, the poor who often need help for the products of scientific research are overwhelmed by exorbitant prices that they cannot afford. One fine example would be the creation of genetically modified (GM) food during the Green Revolution. Cornucopias of superior crops such as pest resistant soybeans, herbicide-resistant corn and Golden Rice, a grain enriched with vitamin A, were created to help famine-plagued regions of the world. However, profit-driven firms such as Monsanto took advantage of such a situation. Monsanto created seeds that produced infertile parents, which meant that at the end of the harvesting season, farmers would have to come back for more. Farmers who did not have sufficient capital to purchase GM seeds would then have to resort to less efficient methods of farming and had smaller harvests. This invariably tilted production in favour of large-scale farms with deep pockets over poor individual farmers. The rich-poor gap also exists in developed countries. Take for example Mylan's EpiPen, which costs US$609 a box. Lower income patients who were unable to afford this anaphylactic drug would inevitably be left out of the market. Thus, profit should not always be the critical driver for scientific research as it cheapens the pursuit of science which was meant to benefit humanity.

Profits should not always be the main driver of scientific research because science, when spurred by commercial interests,

often leads to morally suspect scientific practices. Private firms who invest in a particular research project often pressurize scientists to succeed at all costs. As such, some scientists resort to academic dishonesty. Hwang Woo Suk, a South Korean scientist was greatly reward for his pioneering work on stem cell research. However, it was found that his research was based on fabricated experiments. His dishonesty in research was driven by his desire for fame and fortune. Research companies in the drug industry also tend to suppress negative research data for fear that it may compromise profit levels. Thus, the pursuit of scientific research for commercial interest undermines the credibility of science and therefore profit should not always be the most important concern when conducting scientific research.

I believe that scientific research should be conducted on the basis of benefiting humanity rather than satisfying profit-driven firms as commercial research tends to focus only on areas with some certainty of profit, leaving out areas that are needed by the developing world. Pharmaceutical companies tend to focus more on treatments and therapies for first world ailments rather than common third world diseases. For example, neglected diseases such as malaria and tuberculosis that primarily affect the global poor, receive less than two percent of the $160 billion spent on medical research and development each year. In 2014, AstraZeneca announced it was pulling out all early-stage research for malaria, tuberculosis (TB) and other neglected tropical diseases to focus on drugs for cancer, diabetes, and high blood pressure, all diseases that affect rich countries in which potentially high numbers of patients are willing and able to pay the high price on new drugs. As such, scientific research should not be based purely on money because the needs of the poor are shunned in favour of the rich.

On the other hand, it may be true that when firms are driven by profits, innovation and productivity increases. Firms are driven ceaselessly to develop competitive and appealing products so that they can patent them for profit. Nevertheless, the pursuit of science for the benefit of humanity and for satisfying profit-driven firms are not mutually exclusive. Since consumer behaviour is predicated upon human need, profits will naturally follow if scientific research focuses on meeting the need. For example, firms like Effexor that sell antidepressants to cater for a growing demand, earned a whopping $3.8 billion in sales in 2005. This shows that when companies tailor their products to fit the needs of the people, profits will naturally follow suit. As such, science based on human need should take precedence over profits.

Critics who argue that profit should be the main concern of scientific research rather than human need, cite the claim that at the end of the day, research firms would have to answer to shareholders in ensuring the profitability of the company. However, while this is true in many other industries and sectors, that should not be the main aim of scientific research, which has its beginnings in seeking to improve human existence. While it can be said that there is no moral obligation in capitalism, there is indeed a moral obligation to fellow humans, regardless of the system that we exist in. As the late Nobel Peace Prize recipient Joseph Rotblat said, 'At a time when science plays such a powerful role in the life of society, when the destiny of the whole of mankind may hinge on the results of scientific research, it is incumbent on all scientists to be fully conscious of that role, and conduct themselves accordingly.' As such, the desire to benefit humanity should surpass the desire for profits in the pursuit of scientific research.

To conclude, the desire to pursue scientific research should lean on the side of benefiting mankind rather than satisfying profit-driven companies. Profits, while important, should remain secondary to human need. As the second son of the founder of Merck, one of the world's largest pharmaceutical companies, aptly puts it, 'we try to remember that medicine is for the patient, it is not for profit, and if we have remembered that, they never fail to appear.'

Cheryl Neo Juan Lin 16S111

⚜**Review**
The arguments are mature and insightful, addressing a difficult question well. Keep up the good work!

'Countries experiencing conflict should be left to sort out their own problems.' How far do you agree? (2016 A lvls Q6)

A disparity in views or ideologies may cause conflicts within a country or between countries. On a smaller scale, these conflicts may result in riots and demonstrations, while on a larger scale, it could result in war. The issue of intervention by other countries or global organisations has remained a sensitive issue as it could alleviate or even worsen the tension in the conflict. I believe that, apart from certain exceptions, countries should largely handle their own national crises without the input of foreign entities, so as to prevent escalation of the conflict or even cause the ruling government to lose their legitimacy.

To begin, what may some of these exceptions be? The intervention of other countries or organisations may be required in the case that the conflict has escalated beyond what the local government can handle, or if there is clearly a large-scale violation of human rights. For example, in early 2014, ISIS gained global prominence when it drove Iraqi government forces out of key cities in Western Iraq such as Mosul, Sinjar and Tikrit. Out-manoeuvred, the poorly trained Iraqi soldiers fled or surrendered and ISIS subsequently executed thousands of Iraqi soldiers and civilians. Only in 2017 have the Iraqi forces retaken these major cities, albeit with significant support and funding from the US Army. Without the assistance of the US Army, it is doubtful as to whether the Iraqis would ever tame the beastly terror organisation. Another example is the Rwandan Genocide in 1994, which had a death toll of approximately one million in a span of 100 days, and resulted in two million Rwandans displaced, which the UN intervened in, albeit only much later. Under conditions of extreme conflict, in which the local government no longer has central control, timely intervention is hence needed in order to ensure that the basic human rights of the locals are protected or to minimise casualties. Therefore, in such exceptional circumstances, other countries and organisations should help the country experiencing conflict. Yet, intervention in these scenarios is usually debated by the UN Assembly and carried out by international peacekeeping forces.

By and large though, countries experiencing conflict should settle their own issues as intervention by other countries may instead exacerbate the situation and prolong it. This is especially when the intervening country does not have the ability to see through the country's transition from conflict to peace, and a power vacuum is left in the wake of a sudden withdrawal, escalating the conflict into an even bigger, extended problem that brings about a greater scale of consequences. This is best illustrated through the Iraq War which started from the 2003 US-led invasion to topple Saddam Hussein's government. The war lasted for more than 8 years, and resulted in an approximate 1.5 million deaths in Iraq as a direct and indirect consequence of the war. What initially was an internal conflict stemming from an oppressive government, became an almost-global conflict involving many other countries nowhere near Iraq on the world map. The intervention of the coalition forces met the short-term goal of removing the ruling government but further conflicts arose between the post-invasion government and the coalition forces. This was followed by the sudden withdrawal of the US-led troops, leaving behind a weak and unstable Iraqi government and allowing for the eventual rise of ISIS as described previously, whose actions continue to plague many countries across the globe. As the proverb goes, 'the road to hell is paved with good intentions.' While foreign powers may have good intentions to end a despot's rule and send in troops to effect regime change, this often leads to an even more chaotic outcome, which these powers are ill-inclined to commit to

resolving in the long run. In light of this, countries experiencing conflict should be left to settle their own conflicts instead of others getting involved.

Furthermore, countries experiencing conflicts should sort out their own problems as the involvement of foreign groups could undermine the sovereignty of the ruling government. A fine illustration of this can be seen in the Sri Lankan civil war in the 1980s. Discriminatory actions against the minority Tamils by the Ceylonese government resulted in the uprising of the Tamil militant group, Tamil Tigers, and the outbreak of civil war. While India initially deployed peacekeeping forces under the Indo-Sri Lankan Accord to help maintain the peace between the Sri Lankan military and the Tamil Tigers, India's forces were instead drawn into numerous battles with the Tamil Tigers over two years. This greatly challenged the sovereignty of the Sri Lankan government as they were seen as being incapable of settling their own civil conflict, and letting another country start a conflict in their own territory. This has serious repercussions as when a government's sovereignty is challenged, the people's trust in the government would be severely reduced and the government would be perceived as weak. Therefore, countries should settle their own internal conflicts, as failure to do so would put them at a disadvantageous position, making them appear weak to their own people and other countries.

From the perspective of intervening countries, supporting either party involved in a national or international conflict is a political gamble which carries tremendous risks. Should the conflict unfold in an unexpected manner, favouring the side which one did not support, this could have long-term bilateral and regional repercussions not just for the intervening party but for all involved. This situation played out recently in the Qatari conflict with United Arab Emirates, Saudi Arabia, Bahrain and Egypt, who cut off diplomatic ties with Qatar after accusing its government of supporting terrorism, and maintaining close ties with their regional opponent, Iran. The US government has trodden carefully in the conflict, being cautious not to side with any party. This is because the US has extensive political and economic ties with the latter four Gulf countries, but also values Qatar as a military partner (Qatar hosts the Al Udeid Air Base, the US military's main regional centre for daily air missions) in its fight against ISIS. As seen from this example, it is more prudent for foreign powers to leave nations experiencing conflict alone, as siding any party is akin to having to choose between the devil and the deep blue sea.

Those with more hawkish views may argue that the intervention of foreign countries is necessary especially if the conflicts threaten the security of neighbouring countries. The close geographical proximity between countries may increase the ease of violence spilling over into neighbouring countries. In such cases, as these hawks claim, these neighbouring countries have the right to intervene in the conflict in order to ensure the safety of their own citizens. There may be some truth to this and this is seen in how Turkey intervened militarily in Syria to prevent the conflict from making further inroads into its borders. However, this right of intervention due to the close distances between the countries, can also easily become an excuse for foreign invasion instead of an intervention. One such example is the annexation of East Timor by Indonesia in 1975. Upon the Portuguese coup and civil war in East Timor, the Indonesian government saw it as an opportunity for the annexation of the island, under the pretext of anti-colonialism. The quarter-century long conflict started due to the overthrowing of the ruling government in East Timor, resulting in the death of approximately 180000 civilians and soldiers by the time the referendum was obtained in 2002. In such cases, the intervention of foreign countries into the area of conflict on the basis of close geographical proximity may become an invasion, often to satisfy the hidden agenda of the intervening government. This is largely unjustified and violates Article 2 of the UN Charter which clearly defines the right of nations to self-determination, and thus is not a convincing reason for intervention. Countries experiencing conflict should thus largely be left to settle their own problems.

In conclusion, I believe that as far as possible, countries should be left to settle their own conflicts when these conflicts are manageable so as to protect and preserve their sovereignty and legitimacy. External intervention should only be sought or initiated in more extreme circumstances. As Nobel Peace laureate Nelson Mandela said, 'Intervention only works when the people concerned seem to be keen for peace.'

Joanna Ho Tanuwijaya 16S111

Review

The writer has displayed a thorough knowledge of complex international political affairs through the wide range of relevant examples cited and developed to support the arguments raised.

How far has modern technology made it unnecessary for individuals to possess mathematical skills? (2016 A lvls Q7)

Mathematics has evolved side by side with technology. Starting out with mere numbers, mathematics has spawned numerous complex theorems which in turn gave access to modern technology. Although mathematics is the language of the universe, many are beginning to deem learning this elegant language unnecessary, as modern technology has made mathematical skills obsolete. However, I for one, believe that this view is very narrow-minded and undermines the true value that mathematical skills have to offer.

Thanks to modern technology, possessing complex mathematical skills now seems less unnecessary as technology can help solve the mathematical problems many of us would face. With a quick push of a few buttons on a calculator, one may be able to solve most if not all mathematical problems they would encounter on a day-to-day basis. Furthermore, one is able to

find mathematical theorems and formulae on the internet with relative ease, blindly applying it to the context of their situation, without memorising the formula or even understanding how it works. However, this argument is very simplistic and even flawed. It is undeniable that modern technology has greatly simplified many mathematical functions, such as completing the square of quadratic equations and solving for the square root of a number, which would be a nightmare without the aid of a calculator. However, it does not mean that mathematical skills are any less valuable as understanding the concepts of mathematics being applied is still crucial in solving any problem. This is even true for individuals in lowly-skilled occupations or those which do not require much mathematical prowess. If a cashier does not understand why subtracting the cost of an item from the total amount of money received would yield the amount of change that needs to be returned, no calculator can assist them in that case. The point made on being able to search for mathematical formulae online and applying them is flawed too because the fundamental understanding of the function of the mathematical formula in itself is a form of possession of mathematical skills. There are countless formulae to apply and the ability of knowing which one to use in the context of the problem at hand already showcases a certain level of understanding of the inner workings of the mathematical problem. This shows that modern technology has not made it unnecessary for individuals to possess mathematical skills.

Of course, detractors to my argument argue that modern technology has greatly reduced the need to be adept in mathematical skills. Due to the convenience of being able to key equations into a calculator, many people's fundamental mathematical skills have become much duller. These detractors therefore claim that modern technology has made us lazy and less sharp at solving basic mathematical problems. However, although modern technology such as graphing calculators have greatly simplified many mathematical processes for students, it has

also opened up the option to learn about even more complex and advanced mathematical concepts that would have been previously impractical, if not outright impossible, to explore before the aid of modern technology. It allows them to tackle concepts such as imaginary numbers and trigonometry which go way beyond the simple use of a calculator, by allowing precious class time to be more efficiently used by simplifying many tedious and repetitive tasks. Furthermore, it may not be exactly true that modern technology has made us incapable of solving basic mathematical functions. In many education systems, calculators are not introduced into mathematics classes until much later after students have developed a strong foundation for the fundamental functions such as addition, subtraction, multiplication and division. This ensures that the students' mathematical skills are not compromised by the convenience of modern technology, and can still be utilised when the students are more mature and require the extra computing power to pursue higher levels of mathematics.

In fact, modern technology has made possessing mathematical skills in high-skilled industries even more necessary. It is without a doubt that most disciplines, especially scientifically-related ones, require a high level of mathematics. With the increase in computing power that modern technology has unlocked for us, we are now able to tackle new problems and create even more theorems and models that were previously impossible due to it being tedious or complicated to work out manually. Be in environmental studies, physics or economics, a strong foundation of mathematics is required if one wishes to pursue the field at a high level. Without the strong foundation, one would be at a loss as many phenomena are explained using mathematical models, statistics in particular, such that individuals would be confused as the numbers before one would seem senseless and without meaning. Nearly every field requires a certain amount of statistical analysis, which requires a deep understanding of mathematics. Almost all these statistics are collected and computed with the aid of modern technology. One good example

of this would be big data, where millions of consumer trends, tastes and preferences are recorded. However, what good would this information bring if there was no way to process it? There is a greater need to think up of more refined tools and innovative ways to decipher and utilise such big data so as to improve our lives. As such, companies such as Google design algorithms, which require high levels of mathematics that would sieve through the information and help direct consumers to links or advertisements that are likely to interest them. This can only be done if in the first place, programmers and coders understand the mathematics behind the algorithms. As such, technology does not nullify the need for mathematics skills, but in fact increase it.

Lastly, mathematical skills do not just inspire a logical mind, but also spur the imagination. Moreover, a mastery of the mathematical skills themselves will be useful to help realise such ideas in the real world. Architecture is one of the most obvious fusions of mathematics along with imagination. It takes a great deal of mathematical skills to be able to design a building that is structurally sound as well as aesthetically pleasing. Mathematical concepts of spatial form and aesthetics can create brilliant masterpieces. The golden ratio, where two quantities are in the golden ratio if their ratio is the same as the ratio of their sum to the larger of the two quantities, is a testament of this fact where mathematics can help man create aesthetically and visually inspiring creations. With the aid of modern technology, this only further unlocks the potential man is able to achieve. It has spawned creations such as 3D printing which has incredible implications, such as the astronauts on the International Space Station being able to design and print their own tools to use without any support from us here on Earth. It allows new forms of art creation such as digital painting, digital modelling and game design, which all require some form of mathematical skills. Even hypothetical mathematical marvels are inspired by mathematical concepts too, from fractal geometry in creating new tessellation designs, to design gravity in formulating future space habitats in outer space. This shows how with modern

technology, we have opened up greater options to express our creativity through mathematical concepts.

In the future, if we wish to advance further and develop even better technology, even greater amounts of mathematical knowledge and skillsets are required in order to push the boundaries of mankind. Therefore, it is my unequivocal belief that we should all possess mathematical skills and embrace the language of the universe.

Brian Cheong Sze Kai 16S111

Review

The writer's deep passion for mathematics is evident in the numerous examples given, as well as the insightful arguments presented. A good effort!

Is competition always desirable? (2016 A lvls Q11)

Competition is everywhere. Starting small on an individual level, competition arises in schools, sports or even amongst siblings. Moving up, competition exists in politics, where politicians compete for the citizens' votes to attain power. Internationally, countries compete on an economic basis, which explains the formation of trade agreements and international organisations like ASEAN and the EU. In fact, competition is even celebrated, in events such as the Olympics, or other major sporting events. Often, competition has led to vast changes that brings about benefits, leading people into thinking that competition is always desirable. However, I disagree with this statement.

Some people may subscribe to the school of thought that competition is desirable because it is the key driving force of improvement and innovation. Competition arises from a desire to outdo or outperform others in the various fields they compete in. In order to achieve this, competitors are always seeking for new methods of doing things, new technologies that put them ahead and new products that gain the recognition they desire. One such example

is the electric car company Tesla, which is considered one of the most innovative start-ups born in Silicon Valley for their work in developing the field of electric vehicles. Having to compete with other companies like AC Propulsion, it led to the development of the Tesla Battery, which far surpassed the capabilities of its rivals, revolutionising the electric car industry. In this case, competition has resulted in improving the efficiency and performance of electric vehicles, which is much needed in the world today. As such, competition is definitely desirable to continue making improvements and changes in this world, that not only benefits the companies, but also everyone else living on this planet.

While this is true, competing is not always desirable as it may lead to other outcomes, far less optimistic than the earlier example. Firstly, competition may lead to a huge wastage of resources, to an extent where it becomes detrimental to society. Competition is often a matter of pride, and in an attempt to outshine others, competitors may fail to recognise the consequences of their ambition. A great example of this is the Space Race between the USA and Russia during the 20th century. The two countries were fighting for supremacy in the spaceflight capability, with both sides wanting to be the first to put a man on the moon. To achieve this, NASA spent over $20 billion on its Apollo programme, and the Russian space program also spent trillions of rubles. The sheer costs of this sort of competition were sky high, incurring a huge opportunity cost as these resources could have been channelled into so many other industries. Besides economic consequences, there are many other worse outcomes due to competition arising from pride. Examples of this include the Cold War and the numerous proxy wars fought by US and USSR in order to gain supremacy in the world. Through these examples, it can be seen that because competition is often a matter of pride, it can lead to unhealthy levels of it, such that it brings about more detriment than actual benefit. Therefore, it is undesirable.

Secondly, competition becomes undesirable when it begins to spark conflict. While friendly rivalry may be a good thing in small scale competitions, when magnified on an international level, it can develop into something disastrous. Because of the nature of competition, competitors are often at loggerheads with each other, which can develop into ill feelings and poor, if not hostile, relations. This was clearly illustrated in the Gulf War of the 1990s, between neighbouring countries Iraq and Kuwait. Both these countries were major oil exporters, as they both had access to large oil fields. Both sides were not on good terms with each other, and when Iraq accused Kuwait of stealing their oil using slant drill technology, it sparked an invasion which led to thousands of lives lost and thousands more injured or captured. This is also apparent in the sporting world, in cases such as the football riots between fans of Ajax and FC Utrecht in 2003, who were league rivals. Thus, as competition can lead to hostile conflict, it is not always desirable.

Lastly, competition is undesirable when it is unnecessary. This may be so in certain situations like in early education or important industries like the telecommunications industry. In early education for the young, competition places additional stress on children in their formative years, which may cause harm. In Singapore, to enrol their children into 'good' primary schools or even kindergartens, many parents go to great extents like volunteering or donating money to achieve this, which also places unneeded stress on themselves. In the telecommunications industry, the competition amongst service providers, although leading to companies being forced to lower prices, has come at the expense of quality as companies have had to cut back on quality to recoup losses. For example, in 2014, Singapore telecommunications companies topped the list for poor customer service, according to a study conducted by the Singapore Business Review. Thus, it can be seen that competition is not always desirable. Rather, it depends on the context and situation involved, as it may lead to other unwanted external costs for other parties.

In conclusion, although competition is inevitable, and has its positive impacts like driving innovation and change, it is not always desirable especially if it leads to a wastage of resources, conflict or when it is simply unnecessary. What is important is ensuring that the right amount of competition happens in the right situations at the right time, and that is the true challenge present in this day and age.

Jonathan Chan Zhi Jian 16S111

Review

This is a succinctly written essay which has been well-illustrated by a wide range of examples from different areas.

'No cause is ever worth dying for.' Discuss.
(2015 A lvls Q4)

Thanatophobia is the fear of death, a fear which is deeply ingrained in the hearts of many, and with good reason too. To die is to lose all signs of life, all of one's future extinguished with one last breath. There is no reverse switch or any chance of revival which is why most would believe that there is no cause equal to the severity of death. However, I believe that a cause, which is a principle, aim or movement to which one is committed and prepared to defend, would be worthy of any sacrifice that a person is willing to give, including his or her life. Hence, I do believe that there are causes worth dying for.

In the countless wars that have devastated the world in the past centuries, millions of men have fought valiantly to their deaths, if only to keep their friends and families safe. They speak of patriotism and of liberation for their countries. Their personal convictions and loyalty run deeper than life itself. The final words of American patriot and spy, Nathan Hale, were, 'I only regret that I have but one life to lose for my country.' His emotional words conveyed his and many others' perception of the value of life – that it pales in comparison to a greater cause. In their minds, dying for such a cause is not

only worthwhile, but also honourable. This applies to many other fields, not just patriotism. The depth of an individual's commitment to a cause can go deeper and further than the need to live. They willingly sacrifice their lives in the belief that their sacrifices would trump the costs and consequences of dying. Hence, merely the belief and devotion an individual has to a cause makes it worthy of dying for.

Moreover, who actually has the capabilities and wisdom required to be the perfect judge for determining the worth of a cause, and whether it is worth dying for? The whole-hearted belief and commitment a person must have for a cause to go to the extent of dying for is so profound and inexplicable that no one else would be able to understand or comprehend it, unless they possess the same amount of devotion to the cause. The Japanese aviators in World War II knowingly went on suicide missions by flying their aircrafts into Allied ships with the aim of crippling and destroying as many ships as they could. Such attacks, infamously known as the Kamikaze missions, were the Japanese Army's last-ditched attempts to turn the tide in the war. Whether or not they were successful, the Japanese warriors were still wholeheartedly committed to the cause and to their country. Hence, this makes bystanders or critics unfit to judge the worth of such causes, or worse, criticize the depth of these individuals' devotion, as they can never truly understand the level of significance the cause has. In my opinion, as long as the individual deems his or her cause worthy enough, the cause is worth dying for and any other opinions are highly irrelevant and insignificant.

Many causes in the world involve the reversal of certain problems and the improvement of the lives of millions, even billions. Whether it is fighting for gender equality, or saving endangered species and the environment, the outcome usually involves the interests of others. Sacrificing oneself for such beliefs and the greater good would effect changes in the world, sometimes large, sometimes small. Martyrs who are killed for their beliefs and who refuse to surrender even in the face of death inspire many others to share their mind sets and start movements for change. Such deaths usually have colossal impacts, kick-starting revolutions or peaceful protests to bring an end to an issue or a problem. Mohamed Bouazizi, who famously set himself on fire and burnt to death to protest the Tunisian government's unfair treatment of vendors like himself instigated the movement called the Arab Spring. The impact of a death for a cause is always felt deeply by everyone in the world, yet its effects are often understated. Dying for a cause to effect change that would benefit so many more lives makes such a cause worthy of sacrifice. Thus, if dying raises awareness of certain problems or inequity, it justifies the act of dying for a cause.

Many detractors to my stand would argue that dying may bring more costs than benefits to the world, which offsets the rationale for dying in the first place. Causes that are violent and bring about staggering amounts of suffering and pain are examples of causes unworthy of death. In the Islamic State of Iraq and the Levant, misguided men and women willingly volunteer for suicide-bombing missions to advocate their religion and extremism. Their deaths create changes that are detrimental to the world and the costs are overwhelmingly huge. This leads critics to believe that dying for a cause, especially causes that are flawed in nature, is unjustified and not worthwhile. Although I agree that such deaths are unnecessary and harmful, the fact remains that the individuals who died for their causes truly believed that what they were advocating was worthy of their sacrifice. In their minds, their purpose on Earth is to see the accomplishment of such aims, and they would gladly die for their perceived 'greater good'. As we are not the ones sacrificing our lives, we are unable to judge using a fair criterion whether their causes are worthy of their deaths. These self-sacrificing individuals are living in worlds built upon principles that value their deaths as worthy and beneficial to the greater population, hence whether or not such principles are true matter little to their personal belief in such causes, making these causes worthy of death.

Others may argue that our lives are simply too precious to waste for a cause. As the oft-regarded aphorism goes, 'You only live once.' Life should be spent meaningfully and prolonged for as far as possible for the sole reason that we only have one life. Even Darwin's Theory of Evolution has proven that the primary driving force of the human race, or any kinds of species, for that matter, is the need to survive. However, such critics neglect to understand that merely living or surviving is oceans away from having a purposeful life. Martin Luther King Jr. once said that 'If you have nothing worth dying for, you have nothing worth living for.' Indeed, it is precisely because life is so precious that we willingly give it up as the ultimate sacrifice to a cause we believe in completely. Death serves as our final stand on an aim or a principle we live by. Hence, it is worthwhile to die for a cause one deeply believes in.

In sum, I do believe that there are causes worth dying for. A cause which we understand thoroughly and believe in completely; one which is shaped by our values and principles, would be worthy of our sacrifices and deaths. Though Martin Luther King Jr.'s death was by assassination, and not by intention, it was still a life given to his life-long cause to free the African-Americans from segregation and discrimination. This reinforces my belief that there are causes worthy of death, as despite how death may seem unsettling, the thought of living on without an aim or principle to defend seems downright terrifying.

Wong Wai En Megan 16S111

📖**Review**
A very brave and controversial stand taken, the writer has nevertheless written convincingly and eloquently on the topic.

How far should firms be allowed to limit their workers' rights when profits are at stake? (2014 A lvls Q2)

The illustrious Eleanor Roosevelt once said that 'workplace rights are human rights.' Indeed, in today's world, where human rights are often glorified and prioritized by established firms, it is important to discuss whether there are times when human rights, and therefore, workplace rights, should be of secondary importance, especially so when profits are at stake. Workers' rights are conjunctive to human rights as illustrated by the 1948 Universal Declaration of Human Rights which mentioned in Article 23, that workers should have the right to free choice, to just and favourable working conditions, and access to equal pay for equal work. Therefore, in this essay, one could assume that workers' rights are closely linked to human rights. Although firms have some right to safeguard their profits during an economic slump, I still believe to a large extent that firms should not be given the benefit of limiting workers' rights as compromising rights for the sake of profit is non-viable in the long run, breeds exploitative firms and is inhumane. In this essay, I intend to refute the fallacy that firms should be allowed to limit their workers' rights even when profits are at stake.

Realists would be quick to highlight that in the event of economic shocks, firms should be allowed to restrict workers' rights to recover and safeguard their company's long-term sustainability. This can come in the form of temporarily suspending some level of workers' rights through the imposition of pay cuts and shorter work leave. Such an approach may be necessary especially during an economic recession where firms' precedence should be its survival. Restricting workers' rights could thus allow firms to reallocate their resources to business restructuring which is crucial to regain comparative advantage, boost firm competitiveness and recover from profit depression. In doing so, firms are able to secure their long-term

sustainability, which essentially benefits their workers. Furthermore, through restricting of workers' rights via pay cuts, firms are able to retain the same number of workers during a credit crunch as labour costs decreases. This essentially ensures that employment is secured and that workers do not get retrenched during a credit crunch. This suggests that temporarily suspending workers' rights could be beneficial to workers in the long run. Moreover, it is argued that firms should be given some right to control workers' rights during an economic depression as it is unrealistic to expect firms to retain prestigious workers' rights as they may simply be unable to afford to provide such acclaimed rights for all its employees. Hence, it would seem that firms should be given some control over workers' rights especially during economic shocks as it allows firms to regain business stability.

However, one must acknowledge and recognize that such an approach should only be a temporary solution where normal workers' rights should be restored once firms are out of the economic crises. This is because offering minimal workers' rights even after an economic crisis, may lower the ability of firms to attract skilled workers to work for their company as these skilled workers are in search for higher incomes, better workplace environment and greater mobility during an economic boom. Consequently, the inability to attract appropriate skills could hamper productivity and profitability. Furthermore, one should not overlook the fact that the responsibility of limiting workers' rights during an economic slump largely falls on the shoulders of the government who are more equipped to make an informed, sensible, just and responsible decision on how much workers' rights should be restricted to boost a slowing economy. As such, firms should not even be given the right to restrict workers' rights as it is not their responsibility to do so. Hence my stand still holds true that firms should rarely be granted the right to compromise workers' rights.

Furthermore, even if firms were given the right to restrict workers' rights during an economic slump, firms could misuse this newfound right in solely satisfying their needs. In this case, it is notable to point out that there are companies who thrive on such freedom and flexibility in restricting workers' rights, and do so at the expense of its workers to the point of abuse. To illustrate this point, 114 million children are involved in child labour all over the world, whom according to the International Labour Rights, earn 6 cents per hour. Firms who hire child labourers would be able to stabilise their profits as they are able to employ their workers at an incredulously low rate. This is inhumane as firms are exploiting children's negligence to serve solely their interest. Another notable example is the deplorable working conditions in Rana Plaza Bangladesh which claimed the lives of 1,100 people. This occurred as factory owners, who manufactured clothes notably for international fashion labels such as H&M and Nike, compromised the safety of its workers for the sake of saving money which could have been spent on proper fire prevention systems. Such appalling occurrences could have been prevented if workers' rights were not compromised in the first place. This sufficiently allows us to conclude that compromising workers' rights should never be the approach to safeguard profits as people's lives are immeasurable compared to the monetary gains and poses dire consequences which may be immutable. Moreover, it should also be noted that workers who are paid very low wages and work long hours in poor working environments, with little representation in unions, also have poor educational attainments. These people usually live in poverty-stricken places where workers work for survival. Workers' nescience and desperation allow firms to easily safeguard their profits which breeds unjust working practices detrimental especially to the most vulnerable. This shows that it is unjustifiable for firms to not accord rights to workers who are extremely poor, likely unaware of their own rights and who are at the mercy of employers as this perpetuates a vicious cycle of exploitation and poverty. Additionally, not giving firms the right to restrict workers' rights poses benefits in the long run, as condoning such a culture of undermining workers' rights would prevent other firms' attempts from

emulating such actions. This halts the breeding of an unfair working culture where work is not justly compensated for. Thus, firms should not be allowed to limit workers' rights for the sake of profits as they could abuse it.

Detractors to my position would also point out that firms should be allowed to limit workers' rights especially so when profits are at stake as it is innate amongst firms to be profit-driven. Taking the pragmatic stance, it is understandable why firms would want to safeguard their profits as it essentially determines their survival in a competitive economy. For example, it may seem justifiable to grant firms the ability to regulate internet or social media usage during work hours as it diverts the attention of workers away from their job. Other forms of limiting workers' rights could be monitoring worker movement and stipulated break times which sets a standard of discipline amongst workers. This essentially allows firms to remain efficient and productive. Hence, it may seem logical to grant firms the ability to compromise workers' rights in order to pursue greater profits.

Although it makes some sense and is generally fair to argue at times, it is myopic to assume that compromising workers' rights is the right approach to safeguard profits as it does not address the root cause of the lack of profitability. For example, firms could be experiencing retardation in its profits due to increased competition or due to production inefficiency. In this case, rather than making the workers bear the brunt of the loss of profits through limiting their rights, increasing productivity through investments in technology would be a more appropriate approach to boost profits. A notable example of such an approach is the use of automated machinery and robots which are adopted by numerous corporation giants such as Amazon, Nike and even McDonald's to reduce costs in production and hence, boosting profits. Indeed, such an approach is more logical as it addresses the root causes of the problem of falling profits. Furthermore, compromising workers' rights should still not be adopted to safeguard profits as it is a threat to a

firm's' long-term sustainability. This is because restricting workers' rights ultimately creates animosity amongst workers which could decrease their productivity overtime. This would inevitably decrease profits as workers are not working optimally due to brooding discontent. For example, according to a Gallup study, disengaged employees in the US cost the economy almost $450 billion to $550 billion per year. This shows that firms should never opt to compromise rights for the sake of profits as despite seemingly solving short-term problems of falling profits, it poses dire consequences for its workers, the very company itself and even the economy in the future. Hence, firms should not be given the right to constrict workers' rights for the sake of profits as it is ineffective in boosting profits in the long run and threatens the sustainability of firms.

Detractors to my point of view would also raise the argument that there are circumstances where firms are overly penalized due to excessive demands from the workers. In this case, it may seem justifiable that firms are given more leeway to legally protect their rights as businesses to safeguard their profits. Such examples are excessively lax legislations in France which has restricted the work week to 35 hours including 2 hours of lunch breaks and early departures from work. Such legislations clearly harm business productivity. In this scenario, it may seem justifiable to give firms some rights in protecting their profits from clamorous workers. Thus, although firms have responsibilities to protect their workers' rights, it should not be to the extent where its own rights are undermined. The inability to control workers' rights could mean that such inefficacious work habits would continue which is uneconomical in the long run as worker inefficiency is not addressed. This could threaten and degrade firms' corporate professionalism and work culture. Hence, the argument goes that firms should be given some right to control workers' rights if in doing so, it allows them to resolve inefficiencies in its business structure.

However, one should not forget that such occurrences of workers abusing their rights are highly uncommon as the probability of

it happening in today's world is rather minute. This is because it overlooks the fact that most of the problems right now are centred in the abuse carried out by firms rather than workers due to the inequality of power that is pertinent in the working world. In other words, as workers are employed by firms, they are inherently expected to succumb to their terms of employment and as such, what a worker can demand is largely restricted even before employment. As such, the situation of workers demanding more than what their terms of employment offer is improbable in today's world. Hence, my stand still holds true that firms should not be given the rights to restrict workers' right at the expense of safeguarding profits.

All in all, workers' rights form the basis of modern and civilized societies and firms should rarely be allowed to limit these rights as doing so will inevitably lead to unfair and inequitable outcomes for society as a whole. Doing so could even be detrimental to the long-term sustainability of the firm as labour productivity is worsened. Alternatively, firms could be given the right to restrict workers' rights but it should be supplemented with legislative enactment by the government to ensure that there is no misuse of such freedom. Ultimately, firms should only be allowed small degrees of power to limit workers' rights only if doing so ensures fairer outcomes for themselves, their workers and society as a whole.
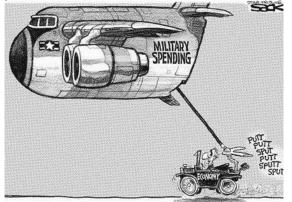
Mary Therese V. Reyes 16S302

Review

This is an excellent essay which thoroughly weighs both sides of the argument cogently.

Examine the extent to which expenditure on arms and the armed forces is justifiable in the modern world. (2014 A lvls Q11)

Volatile, uncertain, complex, ambiguous - these are the few words that come to one's mind when referring to the modern world. Indeed, in this 'VUCA' world, pre-emptive action, prevention and deterrence are the key pillars in ensuring peace and stability. Expenditure on the military not only brings about benefits for the home country but also for the entire world. Military expenditure is a display of a country's might, a showcase of its capability in spearheading global political and cultural issues, and a demonstration of its capability to handle threats both from within and without. Although, detractors might argue that this display of might can lead to an unhealthy arms race and that countries should prioritize other more pertinent issues like health care and education, I would not only beg to differ but also draw comparisons and conclusions from the various points of views. Thus, I believe that military expenditure is justifiable to the extent that it acts as a tool of deterrence and prevention.

Expenditure on the military is an extremely pertinent preventive measure in this volatile world. In today's world where plagues such as ISIS and Al-Qaeda have transcended borders beyond their countries of origin, all countries should be prepared to deal with such threats. By this, I certainly do not mean that every country becomes a gun-wielding megalomaniac,

but instead that every country should spend enough on their military to ensure protection of their own citizens from threats both within and without. Furthermore, countries also use military might to prevent situations from aggravating or even preparing for the worst. Take the examples of countries like the Philippines, Malaysia, Vietnam and Brunei increasing military expenditure as a precautionary measure to protect their sovereignty from the expansion by the Chinese military in the South China Sea, most notably in the Spratly Islands. In fact, countries like France and Belgium have tightened their regulations on immigration and have increased their military expenditure in light of the very recent Paris and Belgium attacks. All these countries stated above realise the merit in having a proactive and preventive expenditure on military to protect themselves from the very imminent threats of the modern world.

Secondly, this expenditure has two-fold benefits. It not only is a precautionary measure but might also deter other aggressors towards one's own country. This is driven by the idea that no country wants to go to war unnecessarily or for futile reasons, and having a strong military reinforces this idea. This would, in fact, further enhance the effectiveness of diplomatic solutions and the capability of countries to resolve disputes without resorting to violence or war. This idea is in part underpinned by the theory of balance of power, which states that if countries have relatively similar power and military capabilities, the chances of war breaking out are extremely low. This is because states recognise that resorting to war with an equally powerful country would in fact lead to an equal, if not worse, destruction of their own country. This theory stands true for many conflicts, such as the Cold War. Both the USA and USSR did not break out in an all-out war because diplomatic leaders of both the superpowers recognized how destructive a war would be for both the countries, especially when both countries possessed nuclear warheads. Looking from a more modern perspective, we can see that such power struggles indeed still exist and the only thing preventing any military retaliation is the common understanding between both countries that both of them are of equal military competence. Another salient example is that of India and Pakistan's perennial rivalry. Both the countries have not been at war since 30 years ago, especially after both countries developed a successful nuclear program. A conflict that still plagues both countries has not amalgamated into a war primarily due to the deterrent effect that each military has on the other country. Thus it would not be an exaggeration or an overstatement to claim that military spending does indeed deter aggressors from laying siege to one's country. As such, spending on the military does not seem unjustifiable at all in the modern world.

Lastly, military expenditure gives a country the capability to address international issues, something extremely pertinent in the modern context. Military might plays a bigger role than just protecting one's own people. It plays a role in ensuring the resolution of international issues such as genocides and civil wars. It is often observed that the countries with the biggest militaries are the ones spearheading the resolution of modern political issues that require armed intervention, and having a powerful military aids them in resolving issues justly and in accordance to international norms. This is especially true for countries that have failed to resolve their own issues or failed to protect their own citizens. We often see the USA spearheading international peacekeeping missions initiated by the United Nations. Whether it is the UN Peacekeeping Forces in Bosnia to curb the civil conflict or that in the Gaza Strip to maintain peace between the Palestinians and Israelis, these forces are largely manned by military forces from military powers like the USA, France and Britain. In fact, the April 2017 airstrike on Syrian military bases by the USA in retaliation for Bashar Al-Assad's chemical weapons attacks in Aleppo showcases that the USA, a military powerhouse, is capable of spearheading campaigns for change in the modern world. Thus, military expenditure transcends domestic issues to that of international ones.

Detractors to my view might argue that this excessive spending on the military could

lead to suspicion among other countries and might cause tensions in international relations. This might even lead to an arms race where countries are constantly competing with each other to establish their military might over the other. This may be true, and increased military spending must be done with due consideration of the sensitivities of one's neighbours, and the broader security landscape of a region, taking care not to heighten suspicion and animosity. Yet, from a different perspective, expenditure on the military could also be easily justified for countries that have close alliances with one another. It not only showcases one as a viable ally in case of war or conflict, but one's prepared nature might in fact spur other countries to adopt these precautionary measures. After the Paris Bombing by ISIS, we saw a wave of increased military spending and cooperation across the European Union, exceeding what they previously spent, showing that countries recognize the merit in military spending and cooperation.

Having said all of the above, it must however be noted that military spending should not be excessively prioritized over spending on public welfare and social services. After all, a government's primary obligation is towards their own citizens and thus by the social contract are indeed obliged to resolve issues that are more pressing within their own country. Issues such as unemployment, economic growth, and poverty do have to be tackled. In fact, as stated earlier, the primary reason for the government's expenditure on the military is to protect their own citizens, thus it seems only logical that governments should protect their citizens from threats of illiteracy and poverty before spending excessively on weapons development and the military, and countries do recognize this. Singapore only started spending a significant proportion of her GDP, namely 5.4%, on the military when she was better able to deal with the more rampant issues of poverty and illiteracy in its infancy years. Singapore's pioneer leaders recognized the importance in ensuring their citizens' welfare before attaining military might. Thus, I believe that military expenditure is justifiable to the extent that it does not

come at the expense of the citizens' welfare, especially when the problems are severe or significant.

In conclusion, expenditure on arms and the armed forces is the harsh reality of the modern world. Whether the expenditure is a deterrent measure or a precautionary one, it is justifiable insofar as it does not come at the expense of one's own citizens' wellbeing, or seen to be overly threatening to one's neighbours.

Vedant Sandhu 16S111

📖 Review

The essay presents well-developed paragraphs covering a wide range of issues. The highly salient examples display the author's breadth and depth of knowledge in the issue. Good job!

Assess the impact of the digital age on free speech. (MJCJ2MYE17Q9)

Many governments, important individuals and celebrities were sent into a state of panic when the Panama Papers were leaked on the Internet in 2015, revealing the shady practices of these people over the years. Much debate ensued in many countries on what should be done with those implicated in the scandal, and several of these countries started investigations, with the most serious fall-out in Iceland, where Prime Minister Sigmundur Davíð Gunnlaugsson was forced to resign over his corrupt deals. Over the past decade, the Internet has enabled many individuals and communities to share information and express opinions freely, due to the difficulty of regulating something as decentralised as the Internet in this globalised world. The creation of social media platforms has also allowed these opinions to reach the masses faster than ever before. Some have argued that the digital age has caused free speech to spiral out of control, crossing boundaries that should have never been crossed. However, I believe that the digital age has

a greater positive impact than negative impact on free speech.

Critics argue that the digital age has caused free speech to be much more harmful in that it threatens to destabilise the harmony in a society. Irresponsible individuals are now empowered to make ignorant or insensitive comments and offend those around them. This can be seen in the venomous hate speech towards certain racial or religious groups which is amplified significantly by the Internet, as more people have access to it and this hate speech can be rapidly spread with just a single click. One such example of hate speech would be Amos Yee's inflammatory remarks towards Christians in his viral video in 2015. It sparked much anger both online and off, and pitted members of the public against each other as some took offense at his irresponsible use of his YouTube channel while others defended his right to speak freely. However, I believe that blaming the rise of the Internet for causing people's distrust and dislike for each other is ignoring the root cause of the problem to begin with. While the digital age has amplified the effects of hate speech, it is important to bear in mind that these tensions have already existed even before the digital age. The reason they were able to be restrained was thanks to censorship of printed media as well as the lack of platforms for people to express their opinions. The solution to the large amount of hate speech is not to censor it but rather to look beyond the hate and identify the problems that these people are experiencing which caused them to feel hatred to begin with. In fact, the wider platform we have now with the Internet could allow for the maturity of our public discourse. Although it is difficult to resolve tensions between groups with diverse opinions, it should be worth noting that censoring what people feel does not solve anything at all, no matter how venomous and dangerous they can be.

The digital age has also enabled people across the world to question their leaders. Governments are starting to acknowledge that the Internet has a big role to play in enabling their citizens to voice their opinions and depending on what type of government they are, either let it stay on the Internet or be censored by blocking access to websites where these opinions are likely to be found, such as Twitter, Facebook and Reddit. As Internet adoption and smartphone penetration rates grow exponentially in more countries, freedom of speech has become something that more people are able to practise, even in the most oppressive countries. The anonymity of the Internet also encourages more people to be less afraid to speak out. Someone's anonymity can also be even more ensured through technologies such as Tor, which allow people to conceal their identity and prevent tracking. This can be observed in China where despite the systematic control of news, the Chinese public has circumvented censors by using software such as Ultrasurf, Psiphon, and Freegate to set up proxy servers to avoid detection. Microblogging sites like Weibo have also become important spaces for Chinese netizens to voice controversial opinions or discuss taboo subjects. These technologies are hence especially helpful in the most oppressive of governments. As such, the digital age has allowed even those hailing from almost Orwellian-like societies, where censorship is heavily enforced, to exercise their right to free speech without compromising their privacy and security.

The digital age has also given rise to whistle-blowers – those brave enough to share shady dealings government officials have committed by leaking classified documents on the Internet. The rise of WikiLeaks has granted the people greater transparency of what happens behind the scenes and under wraps. WikiLeaks has become a symbol of free speech in that these leaks are free for all to see, uncensored on the Internet and sheds light on what those in power seek to hide from the public. Beyond being the very anti-thesis of censorship itself, it is the citizens' way of demanding more accountability from their leaders. For instance, 2015 saw whistle blower Royal Navy seaman William McNeilly expose serious security issues related to the UK's nuclear weapons system in the Trident Nuclear Weapons System leak. The 2010 leak of the Iraq War logs saw media outlets worldwide

investigating claims that the U.S. government had ignored reports of torture by the Iraqi authorities in the aftermath of the 2003 Iraq war. The availability of these leaks would not have been possible without the Internet and because of the decentralisation of the Internet, even if the leakers are caught, this information would still remain intact, making it difficult for governments to cover up their actions. As such, the digital age allows classified information to be more available, enabling those who wish to exercise free speech against the government to have access to irrefutable proof and evidence.

Finally, the digital age has allowed one's thoughts and views to be conveyed to as many people as possible. One can exercise their right to free speech in many different online platforms with high user-generated content which is not tightly moderated like the way printed media is heavily edited. As such, people are able to say exactly what is on their mind on many different platforms like Twitter, YouTube and Facebook which is then easily shared with many people all across the globe. If harnessed in a responsible manner, this could be a powerful platform for massive change to occur. One only has to look to the Arab Spring, where it was Facebook that allowed free speech to flourish and in turn galvanise the people to overthrow the government, to see that the digital age is full of untapped potential. In the past, people would be unable to share such information with so many others without government intervention, especially when dealing with sensitive or highly contentious topics. Now, with the digital age, these limitations have seemingly disappeared.

To sum up, I believe that the digital age has elevated free speech to a higher level. Thanks to the Internet, it is easier than ever before for an individual to exercise their right to freedom of speech without much censorship by the government. As such, governments fear that giving this much power to the people would cause great instability, to the extent that even revolutions become more likely, as can be seen from the Arab Spring in 2010. However, I am confident that by giving

humans the right to freedom of speech, more good than destruction would come.

Denovan Muhammad Kaisar Abas 16S402

Review

The writer shows a good understanding of the concept of free speech and how it is empowered by the digital age. The range of examples given effectively supports the arguments.

'There is enough food for all in the world today.' To what extent is this true?
(MJCJ2MBT16Q9)

It is said that a child in Africa perishes every five seconds on average. Often, this is due to starvation, which according to the United Nations Food and Agriculture Organization, plagues approximately 795 million people of the 7.5 billion people in the world. Does this therefore hint at the insufficiency of food in the world? Whilst there are those who claim that there is insufficient food being produced in the world today due to the presence of global warming, I beg to differ. As a matter of fact, there is more than enough food for all in the world today, due to the advancements in farming technology, and the expansions from small-scale production to large-scale production in the food industry.

Advancements in farming technology have aided food production such that a sufficient amount of food is being produced for all in the world today. As we have a world population of a whopping 7.5 billion, which is estimated to increase to over 9 billion by 2040, scientists have long realised the importance of boosting food production given our ever-depleting resources. Thus, by conducting research and experiments, many have developed farming technologies that speed up crop growth or increase crop yield, one notable example being genetically-modified (GM) food. Agricultural economists have found that GM technology increased crop yields for GM soybeans and maize by 22

percent. Thanks to GM crops and the food produced from it, the problem of global hunger has been alleviated in several parts of the world. Furthermore, biotechnology is able to improve the amount of nutrients in staple crops. For example, 250 million Africans rely on cassava, which is devoid of essential nutrients, as a dietary staple. Researchers are developing BioCassava Plus, which is fortified with vitamin A and iron. Similarly, scientific studies have shown that 100 to 150 g of a GM rice crop known as Golden Rice, can provide 60% of the recommended nutrient intake of vitamin A for 6 to 8-year-old children, and that supplementing Golden Rice for 20% of the diet of children and 10% for pregnant women and mothers will be enough to combat the effects of Vitamin A deficiency. Clearly, such GM crops can benefit malnourished communities all around the globe. Beyond GM crops, other technologies such as vertical farming also extend the reach of agriculture to new places, using new means. Therefore, the emergence of technological advancements in farming has led to a larger, faster, and more nutritious crop yield, resulting in there being enough food for all in the world today.

The expansion of the food industry from small-scale production to large-scale production is also another factor that has vastly increased the amount of food for all in the world today. In the past, the majority of farmers engaged in subsistence farming, meaning that farmers produced a limited supply of food that was on average, only able to feed their families at least and a few villages at most. However, with the introduction of the Industrial Revolution between the 18th to 19th centuries, new farming systems created an agricultural revolution that produced larger quantities of crops to feed the increasing population. New tools, fertilizers and harvesting techniques were introduced, resulting in increased productivity and agricultural prosperity. As the years went by, country after country began to adopt these methods of large-scale industrialised food production in order to meet the sustenance needs of their people. China, with an overwhelming population of over a billion people, used to rely on small-scale production and

family-run farms. But they have since industrialised their food production, slowly getting rid of these old-fashioned means and mass-producing their food in large farms and factories. This has proven to be the right call as China's hunger problem has decreased by a large magnitude, as large-scale production increased Chinese agricultural output at a rate of 12% per annum since 1975, allowing China to have faster access to better food that can feed more. The expansion of the food industry from a small-scale one of the past to the large-scale production of today has led to more food being produced in not just China, but all over the world today.

The emergence of globalisation and international trade has also led to there being enough food for all in the world today. Increasingly, many countries have opened up their borders and are trading freely with many other economies, instead of remaining a closed economy and trading within their borders. Food is a commodity that is imported and exported in large quantities at a frequent rate. As not all countries have sufficient land space or resources to rely on themselves for food production and supply, they have to rely heavily on importing food from other countries in order to sustain their population. One such example is Singapore. Being a small nation with minimal land space, one can often find that most of the produce sold in supermarkets come from an array of countries overseas, such as China, Australia, Malaysia, Indonesia and the USA. This does not come at a loss, as Singapore is one of the most food-secure nations in the world. Small countries such as Singapore aside, even large countries with massive local food production capacities such as the USA often import food from other countries as one country cannot be expected to produce every single type of food as different crops thrive in different climates. Unlike the past, where food from other countries was arduous to obtain, today it is as simple as going down to the nearest supermarket. Thanks to globalisation and international trade, many countries have sufficient food for its people, in terms of quantity as well as variety, even if they do not actively engage in food production. Ergo, it is safe

to conclude that there is enough food for all in the world today.

Yet, pessimists may beg to differ, arguing that there is insufficient food for all in the world today due to the prevalence of global warming which has led to adverse weather conditions heavily impacting global food production, bringing droughts that dry up crops and hot weather that is unsuitable for many crop types. Some scientists have said that climate change is affecting food production on land and sea. The rate of increase in crop yields is slowing – especially in wheat – raising doubts as to whether food production will keep up with the demand of a growing population. I would largely disagree with this gloomy outlook. Although it is true that global warming has and still poses a threat to food production, technology developed by scientists and engineers have helped greatly in counteracting the issues brought about by global warming. For instance, droughts causing a lack of rainwater to water crops have been met with inventions like irrigation and artificial rain. Irrigation involves strategically installed pipes that can bring water to crops at command, holding the fort for nature. Artificial rain involves chemically engineered clouds that can be released above parched land areas. For places that are unable to grow certain crops due to high temperatures, greenhouses have been developed in which temperatures can be regulated and changed to suit different crops. As a result, although global warming serves as a hindrance to global food production, technology has enabled us to overcome many of these issues to a large extent. As such, we will still have an assured food supply for all in the world today.

Yet surely, may the fact that world hunger and chronic malnourishment still affect one in nine people in the world indicate that there is not enough food for all in the world today? Pessimists who raise such a point may even argue that the target for the Millennium Development Goals for developing countries to halve the proportion of hungry people by 2015 from the base year of 1990, or from 23.2% to 11.6% has yet to be met (the proportion in 2014-2016 was 12.9%). While it is true that malnutrition still afflicts many unfortunate souls, and there being insufficient food for all in the world is a logical and perfectly reasonable conclusion to arrive at, I disagree, as I find that insufficient food is not the reason why so many in the world remain hungry. In a study conducted by the World Hunger Organisation (WHO) in 2009, it was found that the USA alone was already producing enough to feed the entire world population. Obviously, the widespread problem of starvation must instead stem from food wastage. Alarmingly, research has shown that roughly one third of the food produced in the world for human consumption every year — approximately 1.3 billion tonnes — gets lost or wasted, and food wasted by the United States and Europe alone could feed the world 3 times over. Additionally, a principal problem is that many people in the world still do not have sufficient income to purchase nutritious food or land to grow enough food for themselves. This issue of food access is being solved little by little, with various measures such as increased international support, more efficient transport systems developed to send food to areas plagued with hunger, and enhanced livelihoods for farming communities. In essence, the solution to world hunger is not to produce more food, but rather it is to curb food wastage and improve food accessibility around the world. This being the case, it is safe to say that there is enough food for all in the world today. Whether people are able to attain access to that vast food supply is another issue altogether.

Might we run into the problem of not being able to produce enough food for all in the world in the future? It is estimated that we currently need a land mass the size of Brazil for food production to feed a population of 7 billion people. Over the next few

decades, this will extend to the need for a land mass the size of North America to feed an estimated 9 billion people. While our future in food supply is not bleak, many say that it is uncertain. But with increased technology in production that will only continue to develop and grow, I believe that there is hope for our future.

Michelle Chen Wei Ting 16S413

Review

The essay was stocked with a range of good examples and showed a breadth of knowledge concerning the issue. The language used was clear and persuasive. A commendable effort!

Should rules always be obeyed? (MJCJ1MYE16Q12)

In some social circles, characters starring in works of literature and film will often be analysed and categorised by the nature of their personalities and actions. These characters will sometimes be placed on a scale, ranging between rebellious, and compliant, determined by their respect (or lack thereof) for order, authority and rules. In real life, people may also be seen in a comparable manner, and every so often dilemmas will arise, where one must ask themselves if they should obey certain rules in certain circumstances, or even regardless of circumstances. I would say no, one should not always follow that which is dictated by the rules blindly, as rules are simple declarations, orders from authority figures. They have the possibility of being too rigid, outdated, or even morally wrong. Yet, there are those who would argue that rules are made by the wise for sensible reasons, and that any semblance of order in society can only be achieved with such rules. Even so, I disagree with such views.

Often, rules are set in stone, or in more modern times, in paper and ink. A rule dictates what its makers feel need dictating. Yet sometimes, there are blind spots, loopholes, even fatal flaws in such rigid rules, as they are inflexible, unable to adapt to circumstances and to account for what more might be at stake by following the said rule. A law stating, 'vehicular manslaughter will be penalised by a prison term,' would penalise the inciter of such a crime blindly, if not for the judicial system. If the perpetrator were to have a valid reason, such as having suffered a sudden, unexpected stroke whilst driving to cause the manslaughter, then that might be grounds on which the court may consider a different outcome and penalty to that which is written by lawmakers. If the judiciary had simply acted upon the law rigidly, people in such conditions would be sentenced unfairly. Hence, we can see that rules will often account for a prescribed general scenario, but do not always work well when the context changes. This is especially true when the context has evolved so drastically that obeying the old rules may actually be detrimental or counter-effective. For instance, while there are rules of combat in war, live situations demand live responses. Thus, there must be flexibility to applying such rules to exceptions, as they are not applicable or appropriate in all situations. Therefore, rules must not always be followed as they are, lest we put far more at stake.

As with anything, rules have to be made at a certain point. When they are made, their creators know only of the world and time they live in. But more often than not, these rules are passed onto their successors, and the subsequent generations. The world is ever-changing, even more so as long periods of time pass. And in time, rules become outdated, obsolete, or perhaps even toxic to society. A prominent example in sports can be found in the history of basketball. The board of officials that drafted the rules to be followed in NBA games did not foresee that, in time, athletes would change. As younger players from a new generation were introduced, the league was both blessed and plagued by faster, stronger, and more skilful players. This all came to a head with Wilt Chamberlain, a giant of a man that destroyed the spirit of the game with his unforeseen bodily proportions, all whilst following the rules to the letter. Refusal to deviate from set rules, or even to amend them whilst still in the season, led to

Chamberlain's team ploughing through a demoralised opposition that did not stand a single chance. Rules also tend to reflect the norms and beliefs of the general population. However, when rules no longer have the consensus of the population, these rules become anachronisms that need to change with the times, as illustrated in the laws penalising homosexual acts or laws condoning torture. More recently, we have seen US President Trump facing backlash from advocates of lesbian, gay, bisexual and transgender (LGBT) rights for his directive to ban transgender members in the US military. From this, we can observe the kind of problems that may arise from anachronistic rules too old to handle our future, and as such why we should not always follow them.

Rules are often made with the best of intentions, their makers usually wanting the best for their society. But this is not always the case. There are rules that are morally wrong, unfair or arbitrary with no logical basis to be obeyed. This is especially for laws that discriminate against a specific group of people, such as the Jim Crow laws in US in the 1880s that discriminated against African-Americans. Another example is Sharia law practised in some sections of societies which still advocate barbaric practices that are inhumane or flout human rights. Furthermore, it is important to note that sometimes, a rule can be instated by one who seeks not for good but instead for gain. Today, we see the horrific effects of the war on drugs: prisons full of small-time criminals, growth in gang violence, and even state-sanctioned human rights infringements. All this began with President Nixon, the infamous American President known for his various scandals that eventually culminated in his impeachment and persecution. But this was not before he could leave behind what would arguably be his greatest legacy: the war on drugs. Initiated on little scientific or even economic basis, Nixon kicked off the war on what he termed 'public enemy number one', in order to persecute those that did not align with his political views: the anti-war hippies and the minority races. With this single enactment, Nixon could, with the blessing of Lady Justice, raid and arrest the marijuana-smoking hippies and heroin and cocaine-using minorities. Fast forward to the twenty-first century, we see that the war has not died down, or even been seen to be effective in any capacity. If anything, the will of Nixon's successors to follow up on his bigoted ways has just worsened the problem. In stark contrast, the Nordic nations, most notably Sweden and Norway have taken a different approach. Having at first followed suit with the harsh measures put forth by the US, these governments quickly realized this was foolish and ineffective, and instead focused on treatment and rehabilitation. Where the US spends $170 per capita a year for its drug problem (a whopping US$51 billion in total), the Scandinavians average $60 per capita a year and have achieved far greater successes in all rights. As such, we see why having laws that are morally and perhaps even practically wrong will only yield undesirable effects for a society. Thus, one must always consider the ethics behind a rule before aimlessly perpetuating it.

Of course, some will speak up for the rule-makers. They will point out that rules are made by people who know better and have past experiences to back their decisions. These are people with knowledge and foresight, politicians or principals or even parents with decades of experience under their belts, individuals who might indeed know the exact outcome of a situation with a single glance at the circumstances. And as such, one should always think twice when contemplating breaking the rules, for their rational judgement will likely be inferior to that of their leaders. I will concede that such is true, that most of the time, those who craft the rules know better than those who are obliged to follow them. After all, they are figures of authority precisely because they have been right in the past or that they have the required expertise. Thus it can be argued that they have earned themselves the privilege to make their claims. However, in the same way a stopped clock is right twice in a day, a working clock may fall behind time ever so often. All the past experiences of these experienced leaders are just that; part of

the past. For instance, Nobel Peace Prize winner Aung San Suu Kyi has been excoriated abroad for her government's handling of the Rohingya crisis in the Muslim-majority region of Rakhine, where soldiers have blocked access for aid workers and are accused of raping and killing civilians. Despite her reputation as a human rights and democracy advocate, Suu Kyi was quoted as saying, 'The problem in Rakhine state is extremely delicate and care is needed in responding…The Myanmar government is responding to the issue of Rakhine state based on the principles of the rule of law.' Ironically, by defending 'the rule of law' in Myanmar, Suu Kyi has also enabled a humanitarian crisis. From this, it is evident that no man is perfect, and even the greatest of commanders have their blind spots or lapses of judgement when it comes to rules. Moreover, in a volatile, unpredictable world, it is unavoidable that they may sometimes be wrong. After all, the only constant to this reality is change. And hence, we should not always follow the rules, even if those who make them seem superior to us in all aspects.

Along a similar line of reasoning, some will argue that society cannot persist without rules, that the only thing that keeps such order in place is law. Without the rules we follow, mankind's feral nature would rip apart the delicate structure of civilization that we have spent centuries building. And such thought is very much valid. Without law, there is only anarchy. In essence, rules are how the leaders in any society lead. However, this is a rather pessimistic view of human nature that assumes every society will descend into chaos when we disregard rules set by the establishment. Furthermore, as with anything, one must always consider the benefits to be reaped and losses to be suffered, even when following the law. If maintaining order in a society means it will lead to far worse consequences, then one should invite chaos for the betterment of such a doomed society. Take Martin Luther King Jr's idea of civil disobedience for example. He eloquently argued in his 'Letter from a Birmingham Jail' – that one must be willing to suffer the consequences of disobeying the law in the hope of transforming the views of one's fellow citizens. One needs to take the public good to heart, and not simply one's own particular interests. For those lofty goals, Martin Luther King Jr was imprisoned and ultimately assassinated. More recent instances of civil disobedience include the Arab Spring in 2010, an uprising against oppressive, authoritarian dictators, and the 2014 Umbrella Movement in Hong Kong, led by pro-democracy activists who were fighting for 'true universal suffrage'. In both cases, the temporary anarchy caused by civil disobedience was justified in the name of true democracy and freedom. Sometimes, rules must be broken so a society may benefit from it, no matter how unappealing it may be. Hence, this is why we should not obey the rules when one seeks to gain long-term benefit or avoid greater harm than what the converse may bring.

When it comes to compliance to the rules, one must recognise that just because they are compelled not to do so, they are not to be relegated to the most extreme end of the chaotic side. Many who are neutral or even lawful may agree with such views simply because they are pragmatists. When the time comes that rules will do more harm than good, one must defy them, break and disobey them without remorse. Rules are made for the betterment of society, and thus, they should be broken for the betterment of society as well; for the reasons stated above. And thus, my stand holds, that rules should not always be obeyed.

Edwin Chan 16S102

Review

This is a very good writer who writes convincingly with a strong sense of personal voice and flair. Several interesting case studies and examples make the essay an informative and interesting read.

Discuss the view that playing video games is a waste of time.
(MJCJ1PE16Q12)

'Addictive', 'violent' and 'immersive' are words often used to describe modern day video games. Behind these condemnations is a very real fear of video games and the effects they bring on society. From South Korea imposing a curfew on video game servers, to the anti-gaming addiction campaigns run in many Singaporean schools, the widespread belief seems to be that video games are a waste of time. However, despite video games being time-consuming and a distraction from real life, I believe that the entertainment, learning and friendships people can gain from video games make it an investment worthy of our time.

While often overlooked, entertainment is an indispensable part of our lives. It allows people to take a break from their own lives, rest and relieve stress, before returning to their work, better refreshed than before. This concept stretches back to the days of Aristotle as he hypothesized that by seeking fulfilment in living the life of another, we are better able to live our own lives in satisfaction. Video games serve that exact purpose, allowing people to play games in a fantasy world and return to the real world satisfied. Many video game developers recognize this, hence the evolution of popular video games such as Pokèmon improving from a pixelated black and white console, to having a game designed in 3D. Video games constantly renew interest by introducing new concepts, mechanics and graphics, hence maintaining a high entertainment value. Therefore, as people simply enjoy video games, the satisfaction derived from them can allow people to relieve stress and work better in the future. This leads to better productivity in the long run, hence, with video games' entertainment value, they are not just a waste of time.

Video games also have educational value, allowing players to gain knowledge while playing. Highly rated titles often have more selling points than just beautiful graphics and fun mechanics, they also require rich storylines – many of which offer some form of historical allusion or social commentary. One example is BioShock Infinite: while having the typical first-person shooter gameplay, the storyline contains many references to the American Civil War in the form of a militant underground insurgency group called the Vox Populi. Playing the game will allow the player many insights through in-game events that mirror the American Civil War. Another popular game with more direct historical references is Metal Gear Solid III, where the player gets to assume the role of an American spy amidst the Cuban Missile Crisis of 1962. Thus, games often have valid learning points and a message of their own. Playing video games can and often will result in a fruitful learning experience, meaning that the time spent on gameplay was not wasted at all.

Besides their entertainment and educational value, playing video games is also a highly social activity. Massive Multiplayer Online games capitalize on this social element, requiring players to work together to succeed, hence forming coordinated parties, guilds and even guild alliances. Video gaming is not always a lone activity and is more enjoyable in the company of friends. Humans are naturally social animals, seeking to form groups by instinct. Video games cater to that need, allowing people to socialize across borders on a common ground – video games. The online game, Maplestory does this exceedingly well, requiring as many as twenty players to work together to defeat a single boss. It also has a number of party quests that benefit the player when he or she chooses to work in a group. Thus, video games satisfy our social needs to meet new people and even provide us the opportunity to expand one's social circle and gain more friends, meaning the time spent of video games was not in vain.

Despite all these merits to video games, there are still many who believe that they are a waste of time due to the huge opportunity cost in terms of time spent on video games. Many video games include 'grinding' – a gaming term used to describe mindlessly earning experience in a game in order to make one's character stronger. This process is extremely time-consuming and often even mind-numbing. As such, one can easily lose hundreds of hours whiled away on killing the same few monsters. This is particularly apparent in

Massive Multiplayer Online games (MMOs) such as 'Tera' and 'Blade and Soul'. Therefore, the time spent on these games give very little real-life returns whether in terms of entertainment, knowledge or even friendship.

While I concede that certain games are a waste of time if a player chooses to only 'grind' in it, I believe that spending excessive time on it is a matter of personal choice. Many games of such nature are losing popularity fast. 'Tera' itself has already been rapidly losing its active player base since 2014, meaning that people are choosing to switch to other games that may be less boring and repetitive. Therefore, with better self-control to not spend so much time on gameplay that involves 'grinding', as well as exercising choice to play other more value-adding games with higher entertainment value, wasting time in such a manner can be very easily avoided.

Critics may also argue that video games are a waste of time as they are a distraction from the real world and easily incite addiction. This is due to how immersive games such as Black Desert Online and Skyrim are, with realistic graphics and highly interactive virtual worlds. Games like Skyrim are known for how open their universes are, allowing the player to take whatever action one pleases, also making it extremely difficult to return to the real world. While I agree that these games are highly realistic and interactive, I believe that there are many more underlying causes to addiction. Studies have shown that gaming addiction is often linked to depression and loneliness. Hence, video games serve as a form of escape for these people. Thus, video games are not quite a waste of time for addicts, but instead, an indicator that they are in need of support in the real world, from family and friends.

While much of the world fears that video games are a bane to society, the fact remains that the industry flourishes with many people seeing their entertainment, educational and social value. With proper self-control and use of choice, playing video games can be a fruitful and enjoyable experience for everyone.

Rachel Han Jian Ting 16A302

Review

The writer possesses an admirable knowledge of video games and defends them with passion. While the stand taken is not easy, the writer has convincingly defended it with clear and insightful arguments.

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