

THE HARROVIAN

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LONG DUCKER

In Aid of Harrow Carers, 4 November

At the break of day, 100 boys, beaks, parents and friends gathered in Bill Yard in subdued anticipation of the quest ahead. Would they get lost (as had inevitably already happened during a training session and, inevitably enough, happened again to a couple during the run)? Would they make it back with enough energy to conquer their old foe Sudbury Hill? Would there be enough energy gels left for them by the time they reached the halfway point of King Edward VII Park? Would the sun come out? While the temperature did not reach the biting low of last year, this year's cloud cover did by no means put a check on the runners' spirits as they set out on the signal of CJFB.

Meanwhile, as the gaggle of half-marathoners swiftly snaked its way through Greater London along the 13-mile route, followed in hot pursuit by NJM and Mrs Marchant on their bikes armed with cameras, six miles down the road the rest of the School began, in waves, its dash (or, in some cases, saunter) back up the Hill. Having already consumed as much Weetabix as physically possible, as well as a banana, impatience to get going grew as the traditional House photo was taken – and before you could say “Do I need this extra jumper?” they were off. Morale was good as runners vied for the top positions and broke away from their House pelotons, encouraged by the marshals who were unafraid, this year, to intercept any and all traffic crossing the route, as well as the overzealous boys on the water stations keen to supply everyone with the prerequisite cup of water and handful of sweets. AKM commented that he had never seen so many running up Sudbury Hill; perhaps this was in no small part down to HRM, who, having positioned herself on the corner just beforehand, proceeded to tell runners that it was “all downhill from here”. Perhaps fatigue had set in to such an extent by that point that these stalwart runners were unable to tell the difference.



The high spirits, however, by no means detracted from our collective effort to raise money for Harrow Carers. Taking part in a running event and having such fun with friends are just two of the huge number of things that we take for granted but which might be beyond the grasp of someone having to care for a family member. The work of Harrow Carers is extremely important in providing young carers with these sorts of opportunities, and we hope that we are able to raise enough money in order to make a difference to their work.

Everyone taking part put in a great amount of effort, but it is certainly worth noting some fantastic individual performances. In the half-marathon, third place went to Douglas Cook, *The Grove*, who finished in 01:29:32, second place went to Monty Powell, also *The Grove*, in 01:25:09, and the winner was Carlos Ohler, *The Knoll*, who finished in 01:24:36. Well done, as well, to Oliver Bater, *Rendalls*, James Middlemass, *Moretons*, William Thompson, *Elmfield*, Theo Nash, *The Grove*, Gerry O'Brien, *The Head Masters*, Taran Franck, *Druries*, and Oliver Wigg, *Bradlys*, who all also secured top -ten finishes. Among the adults, the winning female was LSA, who finished in 01:27:39, while the winning male was RCHA (who just managed to beat



a struggling JMA) in a time of 01:17:22.

In the 10k event, third place went to Frederick Strange, *Newlands*, who finished in 39:43, second place went to Toby Gould, *Lyon's*, who finished in 39:32, and first place went to Eddie Jodrell, *Elmfield*, who finished in the very impressive time of 38:53. Congratulations also go to George Ferguson, *Newlands*, JJ Wong, *Bradlys*, Tom Emery, *Moretons*, Luke Esposito, *Newlands*, Ed De Bray, *The Knoll*, Fynn Maydon, *The Grove*, and Arthur Leney, *The Knoll*, who all finished in the top ten. Among the adults, the fastest male was AKM, who finished in 38:34, and the fastest female was Alice Riddell-Webster, of *The Grove*, who finished in 42:54. SMK ran (jogged?) the entire course, and proudly finished 599/813 in 01:13:05, just in front of SPS who nearly overtook him merely by walking.

OUR LONG DUCKER CHARITIES

What Happens to All the Funding?

Following the total of £106,400 that was distributed to all the good causes last year, it is important for us to know how the funding we've raised is spent and how it will help our chosen charities in a number of ways.

For the main charity, Harrow Carers (50% of funding raised), our efforts will provide a large number of benefits including well-earned breaks from the carers' roles, training to help develop the skills to deliver better care and to look after themselves while providing this care, and counselling, psychological and emotional support to help them cope with the demands of providing regular care for someone. In addition, the charity plans to offer carers complementary therapies, drop-in gatherings and peer support, outreach, educational and creative sessions at their Schools, and outings, social activities and personal challenge days for their young carers. Our funding will give

carers more opportunities to relax and socialise, and overall help them to cope better with their role and look after their mental and physical wellbeing.

A quarter of the money raised will be donated to the Harrow Club. In 2019, the Club has ambitious plans to increase the range and depth of its programmes that support disadvantaged children and young people living in West London. The fantastic fundraising efforts made through Long Ducker will help the club provide a wider range of benefits, such as developing their dance and drama programmes further, with a focus on tackling issues important to the lives of those taking part, and improving health and wellbeing of the participants in the process. It aims to relaunch the Motor Project, where young people get to learn about bike and car mechanics and have fun driving vehicles in a safe environment. It will launch a new late-night outreach project with a drop-in at the club for vulnerable young people so that they have somewhere safe, warm and interesting to attend. It will continue its Debate Boxing programme, where many young people gain confidence to be proficient both in debating and in the ring! On top of it all, the club will continue to run a range of youth clubs, sports clubs and holiday programmes which support more than 400 children on a weekly basis in a deeply deprived area of West London.

The final 25% of the funding will be divided between many of our local Shaftesbury Enterprise partners where Harrovians volunteer regularly. Local primary schools put the money towards (to name just a few) drama projects, refurbishing their libraries, STEM extension weeks, building conservation areas, singing programmes and reading resources. Local charitable partners also use this share of the money to continue important programmes such as supporting unemployed young people and continuing vital support for adults with mental health problems or learning difficulties.

As receipts are still arriving at the Virgin Money Giving Long Ducker sites, it is too early to determine how much has been raised in this year's festival. However, the organisers hope there will be a positive increase over last year, as there was over the previous year.

There was some great feedback from the Harrow Carers who joined in: "It was very enjoyable and fun. I will 100% come again next year" – Valentin

"Very challenging but very fun. The charity has given me a lot so the least I can do is help to raise funds. Great sense of achievement!" – Miraj

"Amazing Sunday running with amazing people and for fun. Will be doing next year too. Harrow Carers rock!" – Daniela

"Can't wait to do it again next year!" – Nisha

"It was amazing and I got taught that practice makes perfect. No matter where you are, you don't give up" – Emma

LONG DUCKER

Rowing



For the third year in succession the Operations Bursar Mr Ralph Arundell and the Operations Director of HDT Mr Will Landale (OH) rowed the Long Ducker distance of 21,097m on Concept 2 Ergs in the gym, both completed the distance in under 1 hour and 31 minutes.

LONG DUCKER

Report from the Pool 2018, Early morning start

4.05am, whilst the rest of the world was still far away in slumber, these hearty people were diving into the pool, either attempting 5k (200 lengths) or 10k (400 lengths), some to carry on and run the 20k event later on in the morning.

Oliver Bater, *Rendalls*, last year's Double Long Ducker runner up, was attempting a second Double Ducker. For Finn Deacon, *The Park*, it was his first attempt at the Double Long Ducker. Derk Ohler, father of Carlos, was also attempting his first Double Long Ducker; for CMC, it was his first attempt at the 10k swim; HJ, first attempt at 5k swim; ERS and MJT, third attempt at 5k swim followed by 20k run.

All were there to start their 200/400 lengths at the 4.05am start time, although Bater had slept in and just reached the pool at .02am, without having eaten breakfast. Bater and Deacon paced each other throughout their 400 lengths, taking turns to draft off from one another. Mr Ohler kept a steady pace in the adjoining lane. Also, in his lane was an incredibly brave CMC who, despite minimal training, took a great leap for charity, rose at 3.45am and decided to battle his senses and attempt the 400 lengths. CMC is to be applauded for completing the 400 lengths, on a power diet of After Eight mints and tonic water! He has raised over £1,000 for charity. Super effort.

In the battle of the Double Long Ducker between Bater and Deacon, in the final 40 lengths or so, Bater pulled away and finished slightly ahead in a time of 2:41:56. Deacon completed the distance in 2:42:44. Mr Ohler's time was 3:27:33. After a quick snack and photo, the three of them were off to get prepared for the run. CMC battled on in the pool.



(Above: Oliver Bater and Finn Deacon, Double Ducker)

Bater, as a second attempt at this event, had his eye on Dan Shailer's record from last year. With an impressive run time of 01:33 minutes, he easily reached this goal by over ten minutes. He and Deacon have been training hard over the summer and this autumn, and are to be hugely congratulated for their efforts. If you have not yet sponsored someone for this event, both of these valiant chaps are worthy of your donations.

For the early morning 5k swimmers, first timer HJ put in an incredible effort. She had a target time of 01:45 minutes and managed to just pip in under that. ERS and MJT, mad as ever, kept a steady pace and did not seem to save much for their 21k run that was directly following.

For the mid-morning start, from 6am onwards, there was a staggered start in the pool for those brave chaps who had decided to challenge themselves with a Double Short Ducker, 5k swim followed by the 10k run. There were an impressive ten of these boys this year, five of whom were from Newlands. There seemed to be added purpose this year as the boys prepared themselves mentally for this arduous physical task. Maxwell Brooks, *West Acre*, and as the current Shell record-holder in this event, deserves a particular mention as he started out in a record-breaking pace for the first 30 lengths. Again, like last year, we doubted whether he could maintain this speed. Length

after length he soldiered on and then actually negative split his final 100 lengths. With ten lengths to go, it became clear that he was within the Senior School record for this event, a record held by a former captain of swimming in his final Upper Sixth year. Cheers erupted from all onlookers poolside throughout Brooks's final lengths. JAPB had his eyes glued to the stopwatch, keeping us all informed. Brooks picked up pace in the last few lengths and, when he finished, JAPB had some maths to do in order to be 100% certain that Brooks had indeed broken the record. With the maths done, Brooks had dramatically broken the School record by a Hollywood-blockbuster-style one second! His final time was 01:02:50 seconds.

Other notable mentions were Apollo Wilkins, *The Knoll*, who swam 16 minutes faster than he did last year, Toby Shirvell, *The Head Master's*, nine minutes faster, William Tate, *The Knoll*, and Henry Pearce, *Newlands*, at six minutes faster, Z-Za Bencharit, *Elmfield*, at three minutes faster.

For the late-morning start, Michael Ma, *Moretons*, and Harrison Layden Fritz, *West Acre*, were the only two to attempt the 10k solo swim this year. Unfortunately, Ma cramped up at around 100 lengths and, though he tried to carry on and managed to do so for 100 more lengths, he had to abandon at 200. Layden Fritz got quicker and quicker with each 100 lengths and finished the event in a winning time of 02:39:15 seconds. This time was eight minutes faster than his time last year. Layden Fritz is this year's Long Ducker 10k champion.

Long Double Ducker

	Swim	Run	Time	Place
Oliver Bater**	2:41:56	1:33:51	4h15m:47	1st
Finn Deacon*	2:42:44	1:46:29	4h29m:13	2nd
Derk Ohler	3:27:33			3rd

10K Swim (Long Ducker Swim)

Harrison Layden Fritz*	2:39:15	1st
Oliver Bater*	2:41:56	2nd
Finn Deacon*	2:42:44	3rd
Derk Ohler	3:27:33	4th
CMC	4:47:58	5th

Short Double Ducker

	Swim	Run	Time	Place
George Rates, <i>Newlands</i>	1:08:12	46:13	1:54:25	1st
Maxwell Brooks, <i>West Acre</i>	1:02:50	53:13	1:56:03	2nd
Henry Pearce, <i>Newlands</i>	1:09:40	47:08	1:56:48	3rd
James Rates, <i>Newlands</i>	1:10:09	50:23	2:00:32	4th
Ryan Lai, <i>The Grove</i>	1:31:08	48:27	2:19:35	5th
Jake Phillips, <i>Newlands</i>	1:16:23	1:03:55	2:20:18	6th
Wendelken-Dickson, <i>Druries</i>	1:24:49	55:44	2:20:33	7th
Hanno Sie, <i>Newlands</i>	1:25:18	56:03	2:21:21	8th
William Tate, <i>The Knoll</i>	1:33:22	50:30	2:23:52	9th
Shirvell, <i>The Head Master's</i>	1:46:06	1:11:21	2:57:27	10th

5K Swim (Short Ducker Swim)

Maxwell Brooks**	1:02:50	1st
George Rates, <i>Newlands</i>	1:08:12	2nd
Henry Pearce	1:09:40	3rd
Z-Za Bencharit, <i>Elmfield</i>	1:09:57	4th
James Rates	1:10:09	5th
Jake Phillips	1:16:23	6th
Rafe Wendelken-Dickson	1:24:49	7th
Hanno Sie	1:25:18	8th
Ryan Lai	1:31:08	9th
William Tate	1:33:22	10th
Sean Hargraves, <i>The Head Master's</i>	1:37:40	11th
MJT	1:43:40	12th
HJ	1:44:50	13th
Toby Shirvell	1:46:06	14th

Freddie Taylor	1:49:23	15th
ERS	1:53:15	16th
**New School record		
*Tie-earning performance		

Special thanks go to Will Stokes who, for the third year running, has showed up before the crack of dawn to support the boys in this special endeavour.

VERNEY PRIZE

"What does it mean to be a good person?"

Adjudicator: Dr David Mitchell, NCH

OH Room, 17 October

On Tuesday before half term, the finals of the Verney Prize for Argument took place in the OH Room. The finalists, some of the supreme academics of the School, were competing for the most prestigious School prize. The competition looked fierce this year, with Long Hei Ng, *Newlands*, Monty Powell, *The Grove*, and Eugene Kim, *West Acre*, all competing on the topic 'What does it mean to be a good person? Is it more to do with what one feels or what one does?'. This is a question that has baffled philosophers from Kant and Nietzsche. The adjudicator was Dr David Mitchell, who is Senior Lecturer at the New College of Humanities. He obtained his BA at Oxford, with a double first in Literae Humaniores.

The first speaker of the day was Ng. Ng began by defining a moral compass. He stated that this was a set of rules that every conscious decision is run through. This compass then decides whether the action should be taken. It is almost a manifesto of the person. Long Hei stated that having a moral compass is an evolutionary system, which helps to bond humanity effectively



together into a social group. Ng then stated that one is moral when one sticks to one's moral compass. Ng also stated that there is no universal moral compass and that one therefore cannot judge another's moral compass: it is a purely personal creation. He then argued that, when one states an action is wrong, one is just stating that it goes against the traditional Western moral compass. Ng also stated that it is therefore problematic to judge the morality of a person's actions, as the only person who truly knows their own moral compass and the situation is the perpetrator, making theirs the only subjective view. Ng then argued that one's moral compass cannot indulge in hypocrisy. One's moral compass has to work universally: everyone should be able to indulge in it, with no adverse consequences. Ng brought up the idea of the 'golden rule', which was relayed in Matthew 7:12: 'Do unto others as you would have them do unto you'. Ng, ever the economist, stated that while this would be perfect, it is unattainable due to the limited resources on earth. Ng then introduced a separate restriction, which he nicknamed the 'silver rule'. This was proposed by the eastern philosopher Confucius, who states: 'Don't do to others what you don't want them to do to you.' Ng stated that any action

that defies this rule is immoral. Dr Mitchell, in the dedicated question segment, asked, "If we change our moral code over time, can we not regard our current moral code as better than our abandoned one?". Ng stated that, since we are looking from our objective view, we can. However, we do have to regard actions taken while in possession of our rejected compass as moral, so long as they adhered to that abandoned compass, even though we believe that the compass itself is wrong.

Kim was the next speaker and he began by stating that a good person should have both good thoughts and good actions, and that one can only be held accountable by what we can do, stating that "ought" implies "can". Kim went on to question whether there can be an absolute truth concerning morality. He stated that, for a statement like "Murder is wrong", you assume that there is such a thing as absolute morality and that it is possible to know it. Kim then decided to take a tangential stroll into Cartesian reality, despite the fact that it has little relevance to the question at best. Having finally got back on track, Kim decided to veer off course on another tangent into free will, all for the purpose of saying that we have free will. Kim put forward the idea that we create meaning in our own life, citing the Buddha, who stated that, if one had a poisonous arrow in one's arm, one would not question the intricacies of the arrow but merely how to take it out and how to heal the self. The message of this parable is to live in the moment, again another slight tangent. All of these in-depth and well-thought-out tangents meant that time was running out fast for Kim, who was visibly shocked at the declaration of the nine-minute mark. He finished his speech by stating that desires are the only things that we are responsible for, meaning that it is more about how one feels than what one does. Dr Mitchell asked if we are truly responsible for our feelings, to which Kim replied that we cannot change how we feel but only how we act. Dr Mitchell responded by stating that feelings do change over time, as we evolve as people, to which Kim did not give a convincing response.

The final speaker was Powell, the only representative of the Upper Sixth in the final. Powell began by taking the same stance as the first two speakers, that morality is simply a social construct and that what we regard as right and wrong are a historic set of moral values. Powell then proposed the idea that one must consider motive when considering the goodness of an action. He portrayed this idea through a thought experiment devised by Stuart Sutherland. There are two men driving an aid truck to a refugee camp, a charitable deed. However, one of the men is a Christian and the other is communist. Is the action still morally good, even though it is motivated by a want for heaven and the advancement of communist principles? Powell did not think so. He then brought up Kant's 'categorical imperative', which states 'Act only in accordance with that maxim through which you can at the same time will that it become a universal law.' This is similar to what Ng brought up in his speech, namely that one cannot devise a moral system that works universally. Powell also proposed that one can only call an act good if the perpetrator takes no intentional value from it. He also attempted to define good, by stating that it must be achievable. Powell then began to state why he believed that one cannot judge an action based on its outcomes, the most popular form of which is utilitarianism. He argued that one has no control over the outcome, meaning that an action can be moral in one instance and immoral in the next. To illustrate this point, Powell produced another thought experiment. Jim is a tourist in South America, where he sees a group of villagers being held hostage by terrorists. The terrorists say that if Jim kills one of the villagers, they will save the rest. The utilitarian would have you kill the villager. Powell had several problems with this. He stated that he is disillusioned with a moral code that would have you kill and asked how one would choose the villager. He also stated that utilitarianism condemns killing the villager if the terrorists still kill the villagers. The same action in the same scenario

produces two very different moral outcomes. Monty stated that, since we cannot control our outcomes, we must be judged on our intent, which Monty grouped with feelings. Dr Mitchell disagreed and stated that, since we have complete control over our intent, we must group it with actions, rather than intent.

Despite fierce competition from Powell and Kim, Ng was declared winner by Dr Mitchell, who praised his ability to portray advanced philosophical concepts in a straightforward and in-depth manner, along with his sharp and thoughtful answers to questions.

ATHENAEUM SOCIETY

*Adil Shaydullin, Elmfield, "True Selflessness",
New Schools, 10 October*

On a dark night in New schools, the Athenaeum Society convened to receive Adil Shaydullin's, *Elmfield*, lecture regarding altruism, and the idea of 'true selflessness'. The topic has been debated in all circles since its inception; from Aristotle's ponderings on its inherent impossibility (in the company of some of the greatest minds to grace the earth) to a *Friends* episode, where a certain Joey Tribbiani unwittingly narrowed down aforesaid Greek philosophy to its basest elements; it being so rooted in human nature makes such unceasing debate inevitable.

He began his topic by defining altruism as 'true selflessness, with no consideration of self', whereupon he presented an example for those in attendance to grapple with (as per the revised nature of proceedings of the Athenaeum Society to be more debate-centred): If a man were to be walking to work on time (such that if he were to continue uninterrupted he would arrive on time), and he caught sight of an unconscious man on the other side of the route than that on which he walked, what should the walking man do?

Shaydullin went on to argue that most people, by generally accepted moral codes in our society, would stop in order to help the unconscious man in question. A more important question that can be derived from this, however, is whether or not assisting the wounded man at one's own expense is truly altruistic. On the one hand, you are not expressly gaining anything material from the exchange, so it is – at least, at surface-level selfless; however, you would also be satisfying your own moral code, as well as having the rewarding feeling associated by random acts of kindness.

This furthering of the question quantifies the answer as being dependent on one's moral code, and therein lies the question of whether one's moral code is natural, or born of society, a theme discussed throughout time, such as in *The Adventures of Huckleberry Finn* by Mark Twain. Written in 1885, one prominent excerpt is especially relevant to this question; Huck Finn, a 13-year-old boy who is portrayed as having a relatively clean moral slate, grapples as to whether he should return Jim (an ex-slave who had fled from society with Finn) to a life of slavery. Such a thing had been depicted by Jim's temporary carers as correct in societal terms. Thus, the internal conflict ensues, resulting in Finn's taking Jim with him as opposed to returning him to a life of slavery. The importance of this with regard to morals is whether man is inherently kind by nature, or whether it is society that has shaped human morality to be so; and furthermore, whether society is right in its presumptions (as, with hindsight, it can be resoundingly affirmed that slavery is not in any way morally correct).

With this parable having been exhausted, Shaydullin went on to define humans as 'ultrasocial' creatures (in that one's success is largely based on how they are perceived), which led to the next topic of internal debate: whether or not positive morality, as we commonly define it, is ingrained in human

nature. Humans are, to an extent, pre-rendered to have certain characteristics by the very base aspects of our being; this much is indisputable. However, the main relation to altruism in this is whether humans at a subconscious level desire recognition or reward, and whether this is an innate characteristic of man, or brought to existence by how one is raised. As a certain John Amaechi OBE stated, "You cannot be a part-time man of principle"; integrity lends that altruism can only be true without the presence of others to influence one's decision to undertake an act with the possibility of gain on account of them.

The next example was that of moral action versus moral consequence. For example, "What is the moral value of being one's acquaintance if it is either one's own decision, or influenced by capital?"

The question pertains to the idea of whether performing a certain action is more or less altruistic depending on whether the person performing the act is presented with a material motive. Some people believe that the outcome is what truly determines the moral value of an action, and that intention and context bear no impact; others disagree, and such is the question regarding this statement. If one decides to act as a friend on account of money, they are still providing the person with a friend, which is the same outcome as if they had done it of their own volition; it is clear that the answer to this element of the question is, however, subjective.

As with the last example, it is evident that the question is far too subjective to yield a factual answer; however, those present at the Athenaeum Society came to some form of generally accepted conclusion. The answer to the question of whether 'true altruism' is possible centres entirely around the level to which motivations are analysed; for example, a person can do something without an explicit material gain, or deeper, an explicit social gain, and so on and so forth. However, it became clear in this that if one delves far enough into the realms of discourse on the subject, it is simply impossible to be entirely selfless, as human nature dictates that if we ever undertake an action, it seeks to satisfy a principle, want or desire; and even if one were to be able to shake off this cerebral coil, our subconscious would likely influence one's decision in that it would benefit oneself regardless.

This conclusion has been seconded by Aristotle (which tends to lend some degree of credence); and while this idea of absolute base altruism being impossible is, while not universally accepted, generally agreed, the question still remains to be discussed beyond the reaches of our time.

RAYLEIGH LECTURE

*Dr John Ellis, "The Higgs Boson and the LHC",
OH Room, 4 October*

Towards the end of last half term, we had the pleasure of welcoming John Ellis to talk about his work in particle physics. Ellis earned his PhD in theoretical particle physics at King's College, Cambridge, in 1971 and, since then, he has been at CERN working predominately in areas regarding the Higgs Boson and the Large Hadron Collider (LHC). Since 2010, he has also held the position of Clerk Maxwell Professor of Theoretical Physics at King's College London.

The 'standard model' of particle physics contains, on one hand, the fundamental particles of matter. We are made up of quarks in the nuclei and, in the atoms around the nuclei, we have our electrons. The other part of the standard model is the fundamental interactions, which are: gravitation, electromagnetism, weak nuclear force and strong nuclear force. Matter particles and fundamental interactions describe all the visible stuff in the universe and are therefore known as cosmic DNA.

However, Ellis went on to explain that the big problem with this theory was "Why do things weigh?" Neither Einstein nor

Newton explained the origin of mass. This is where Higgs comes in. According to him, there must exist a particle that was yet to be seen, known as the Higgs Boson.

Ellis went on to give us an analogy to explain this theory – the 'Snowfield'. He told us to imagine a snowfield that we were trying to cross. We could use skis, with which one could cross very easily and not sink into the snow, and hence would travel very fast and not interact with the Higgs Snowfield, like a particle of light would travel. Alternatively, one could use snowshoes with which one would travel very slowly and sink into and interact with the snowfield, such as a particle with mass would do. If one uses his boots, with a large mass one would sink very deeply into the snowfield and travel very slowly: this would be like a particle with a large mass.



The Higgs Boson is equivalent to what a snowflake is to a snowfield. It is so revolutionary because it explains the origin of mass, as the interaction of particles with the Higgs Snowfield is responsible for their mass.

Therefore, the discovery of this speculated Boson in 2012 had a lot of hype around it because it formed an integral part of the Standard Model of particle physics. The discovery caused "Mass Higgsteria" in the particle physics world and "Higgsdependence Day", as Ellis said.

So where does the Large Hadron Collider come into all this? It is currently the world's largest and most powerful particle accelerator and accelerates protons to 99.999999% of the speed of light. The protons are collided together within detectors, which generates a huge amount of heat; ATLAS (the biggest detector) and CMS are the most famous ones as they were responsible for the discovery of the Higgs Boson.

To finalise, in order to show how much of a big deal the Higgs Boson is, Ellis explained that without the Higgs Boson there would be no atoms because electrons would escape at the speed of light and hence would not have a mass, which means there would be no way to hold atoms together. It is also key to mention that weak interactions (responsible for radioactivity) would not be weak and would be as strong as electricity, which means everything would glow in the dark and life as we know it would be "totally impossible."

Thank you, once again, to John Ellis for really blowing the minds of everyone in the OH Room and for giving us an understanding of some some hugely complicated questions.

L P HARTLEY SOCIETY

First Meeting, 9 October

On Tuesday, we gathered in Copse One with ERB for the first meeting of the L P Hartley Society. The L P Hartley Society is being revived from a somewhat dormant period as the School's literary writing society. Whether the work in question is poetry, prose or drama, the society is a way to place it in a critical light and improve it. Often, writing can be quite solitary, and reading through your work with others can be quite surprising (hopefully enlightening), breaking you out of your own subjectivity.

During the first meeting, undeniably egged on by the presence of biscuits, we were introduced to the society and discussed

its future. Over the hour, we had time to write and to tackle the more philosophical aspect of writing: the nature of poetry and prose themselves.

External literary competitions are also the business of the L P Hartley Society. Each year, there are several prizes for either poetry or prose. The most attractive prize is probably the Tower Prize, with a not insignificant monetary bounty. The Tower Prize is for poet, and this year's title is 'Underwater'. The prize is open to those aged between 16 and 18, and entries are due by 1 March.

Metropolitan Lines is the society's magazine and focuses on the marriage between visual and literary arts. In each edition, poetry, prose, and drama will be included, as well as art. The hope is that some ekphrastic poetry (ekphrastic poetry is a literary description of work of art – the poem may even expand the meaning imbued within the work of art).

The society is named after the Old Harrovian (unsurprisingly) L P Hartley, who was a British novelist, most famous for *The Go-Between*.

All boys are welcome to the society's next meeting, and are also more than welcome to ask ERB about their own work and how they can contribute to both the L P Hartley Society and to *Metropolitan Lines*; it would genuinely be appreciated.

CLASSICAL SOCIETY

Shaul Tor, King's College London, "What if cows could draw gods? Some philosophical questions in Xenophanes", OSRG, 9 October

The Classical Society had the privilege of welcoming Dr Shaul Tor of King's College London to speak on some of Xenophanes' philosophical questions. Xenophanes was one of the early pre-Socratics, the early Western philosophers. Before delving into the work of Xenophanes himself, Dr Tor spent some time focusing on this group, of which Xenophanes was a member. Why is it that they were thought of as philosophers? We can discover the answer by looking at how ancient authorities viewed the start of philosophy.

Dr Tor started with Aristotle, who spoke of Thales as the 'leader' and 'originator' of this philosophy. Thales theorised that everything in the universe was made of water. Attempting to explain the nature of all things and other large questions was something hitherto not done in the philosophical fashion we recognise today, arguing facts based on evidence, reason and logic. One thing Thales didn't do was appeal to explanations that appealed to mystical beings. He was the first person we know of who tried to explain everything with a consistent explanation.

Dr Tor stressed that Thales was not atheist; all too often, we secularise the philosophers because they broke from conventional thinking. Indeed, their texts were distinctive, original and idiosyncratic – one could even call them subversive – but that does not mean they entirely rejected the gods of their culture. Rather, their theories allowed for the existence of gods but simply did not cite them as the causes of everything.

At this point, Dr Tor moved on to Xenophanes of Colophon; he was born in the late 6th century BCE and died in the early 5th century. He wrote as he travelled all around Greece. He wrote in verse – hexameters and elegiacs, to be precise. Xenophanes had interests in theology, knowledge and belief, natural philosophy, and ethics and politics. He was a critic of traditional religion, as we saw in the extracts Dr Tor examined:

'Homer and Hesiod have given to the gods all that is a matter of reproach and censure among men: theft, adultery and mutual deceit'

In this extract, he criticises Homer and Hesiod, representative of general society, for having imposed upon the gods the blame for all that is unpleasant or immoral. Greek myths, which were taken as truths, put all negative human qualities down to

the actions of gods. The gods didn't ask for this. The storytellers have, rather rudely, hoisted this narrative upon them. Xenophanes didn't like how people justified their own bad behaviour thus, and he deemed it hypocritical. Gods were seen as paradigms of emulation and at the same time punishers of injustice. Why would they punish injustice if they themselves were unjust? Xenophanes pointed out the contradiction in the Greeks' belief system. He was essentially telling them 'You can't have it both ways'.

'Ethiopians say that their gods are flat-nosed and black; Thracians say that theirs are blue-eyed and red-haired'.

Here Xenophanes is discussing the origins of religious beliefs. He points out the profound truth that the gods men worship very closely resemble the worshippers. He thought that this was self-congratulatory, or arrogant, and he intended to make the Greeks realise the fallibility of their own beliefs by exposing them to the flaws in other cultures' beliefs.

'But if horses or oxen or lions had hands or could draw with their hands and accomplish works such as men do, horses would draw the figures of the gods as similar to horses, and oxen as similar to oxen'.

This counter-factual thought exercise brings out the absurdity of the principle of gods resembling people by dumbing down the argument. He pushes it from cultural chauvinism to 'species-ist' chauvinism.

'One god, greatest among gods and men, not at all like mortals either in frame or cognition'.

Here Xenophanes introduces the notion of a greatest god. Some people, when they see the phrase 'one god', jump to the conclusion that Xenophanes was a monotheist and argue that 'gods' is just an emphatic descriptor of people. The problem with that belief is that it overlooks just how deep-seated polytheism was. Monotheism was not a known train of thought. Xenophanes described this god as being not at all like mortals in frame or cognition, who 'shakes all things by the thought of his mind'.

Dr Tor examined other extracts, exploring themes such as humans' tendency to allocate divinity to insentient objects, before finishing. The Classical Society is grateful to him for delivering such a fascinating lecture, and to SMK for organising it.

CROSS-CURRICULAR LECTURE

CEGB on "Locke and Personal Identity", OSRG, 15 October

On a gloriously foggy Monday evening, the Cross-Curricular Lecture series returned with a talk from CEGB on John Locke and his opinions of personal identity. It promised to be a fascinating and very engaging talk, with an impressive audience considering all the Glee and Twelves rehearsals which would be going on that afternoon.

To begin with, the speaker told us some simple facts about John Locke. For a start, he was a 17th-century empiricist (someone who believes all knowledge is gained through one's experiences) and someone who studied personal identity. The question that Locke nicely seemed to focus on is the question of what would constitute a person. The age old analogy was whether a ship was still the same if the planks were replaced and I couldn't help casting my eyes towards one of two Harrow Houses.

He also looked at the concept of the soul and whether it exists. If we melt down and recast the statue is it the same? As philosophers often do, at this point in his lecture he decided it was necessary to explain some of the words he was using. For example, before the lecture I had no idea about the difference between qualitative and numerical identity. Qualitative identity is whether something looks the same and was manufactured the same (ie we are both having jerk chicken for lunch: we are having the same thing). However, numerical identity is whether

an object is the same physical presence and, by this definition, the two lunches are not the same.

This begged the question of whether we are the same people who we were when we were born and whether we will still be the same in ten years' time.

To answer such a question, CEGB took us through the various different approaches from famous philosophers throughout history. One thought with regards to this is physical continuity as proposed by John Glover. This is the idea that if you are the same recognisable physical self, you are the same person and your personal identity remains intact. The second is Descartes' belief that the soul defines whether one is the same. If one has the same soul, are they the same person? Those among us who don't have particularly wonderful memories will dislike that John Locke said your memories define who you are in your personal identity. If you remember something, you are that person.

This led to even more questions on moral responsibility and whether we should be guilty about a crime that we don't remember committing. Derek Parfit suggested that an overlap of things would define who you are: a rope is the same even though it is made up of many different smaller strands.

We need to discuss these issues to make sure we are on the right side of crime, moral responsibility, guilt and obligation to ourselves in the future.

The lecture concluded with the showing of a famous OSRG artefact that belonged to John Locke. Thank you very much to ADT, CEGB and the Old Speech Room Gallery for making this wonderful lecture possible.

CULINARY SOCIETY

Mental Health Awareness Day, SCH, 10 October,

Over the course of last week, Shaftesbury Enterprise and the Culinary Society jointly held a coffee morning event in support of Mental Health Awareness Day. The aim of the event was to give back to the community while raising awareness and money, which we can then redistribute to local charities that support people struggling with mental health issues.

Many are unaware of the fact that one in four people in the UK suffers from some form of mental health problem every year, and struggles to fight and cope with it every day. Many boys from the Culinary Society took part in the event. They were split into two teams: a baking team and a sales team. A boy from each team summarised their involvement in the project and their account is as follows.



Baking: On Tuesday 9 October, a team of four boys from the Culinary Society took part in a four-hour bake for Mental Health Awareness Day. Our challenge was to create four large cakes, each about 30cm x 70cm, and we would be baking lemon drizzle cake, banana and blueberry bread, chocolate brownies, and Victoria sponge cake. Other members of the Culinary Society would then serve and sell these cakes to the beaks the next morning. To start off, we were given our aprons, chef's whites and hats, before meeting Caroline, the Head Pastry Chef

for the SCR kitchen. We were then briefed and split into two groups, with Sameer Murjani, *Moretons*, and Shubh Malde, *Elmfield*, on the banana bread and brownies, and Cody Xu and Charlie de Labilliere (both *The Grove*) on the two cakes. We four had our work cut out – we used almost 50 eggs and at least a kilogram each of flour, caster sugar and butter. After some egg cracking, lemon zesting, and chocolate melting, the ingredients for each batter were added into the KitchenAid and mixed for about three minutes. The cake mixtures were then spread evenly into the trays and taken upstairs to the industrial ovens and baked for 40 minutes at 160°C, with a bit less time for the brownies. After extensive deliberation over whether 'to ice, or not to ice', we decided for both the brownie and banana to stay as they were, for the lemon drizzle to be saturated in lemon icing, and for the Victoria sponge to be stuffed with strawberry jam and whipped cream. Next, we waited for the cakes to cool and added the appropriate fillings and icings and sliced them up into generous portions ready for the serving team to sell.

Overall, the experience was very enjoyable and it was brilliant to be able to contribute to charity in a refreshingly different way. A massive thank you to Caroline for taking the time to help us bake, the Shepherd Churchill team, and to Bid Foods for kindly donating some of their cakes.

Sales: Following the baking of the cakes, a sale was held in the Shepherd Churchill from 11.00-11.15am. The sales team consisted of Trevor Tang, *The Grove*, Arvind Hirdaramani and Toby Farr, both *The Park*, helped by Murjani. Not only were we selling the cakes made by the boys from the previous day, but also many cakes that had been donated by those around the School and in the community, which itself ranged from cappuccino coffee cake to carrot cake. However, the cake that stood out from the rest was ERC's delightful chocolate Guinness cake, which was sold out in minutes! A few golden moments included TMD buying several portions of cake for the Maths department as well as the friendly rivalry between CST and CTP as to who would buy the most slices of cake.

The sales team were privileged and honoured to have the chance to sell and raise awareness about mental health problems. The satisfaction of seeing the smiles of boys and beaks, in the knowledge that all proceeds would go to help those in need, made the event a very enjoyable experience.

Overall, the event managed to raise an incredible £432.60, which, for a sale that spanned over two breaktimes, is a huge amount of money that will help the community combat mental health issues. This, of course, wouldn't be possible without all those involved. Thus, a special thanks goes to the hard work of the Culinary Society, Shaftesbury Enterprise, SCR staff and chefs, as well as the generosity of staff and sponsors for helping make the event as smooth and enjoyable as it was.

HISTORY OF ART

Lower Sixth visit to White Cube, 12 October

The Lower Sixth Art Historians were fortunate enough to visit White Cube, a gallery not far from Canary Wharf, during what would have been evening school on a Friday afternoon. White Cube is the biggest commercial gallery in London, and was founded by Old Etonian Jay Jopling. We were lucky enough, thanks to JESB, to be given a tour around the gallery by Susannah Hyman, who is the Head of Exhibitions at White Cube, which allowed us to find out more about what goes on behind the scenes of the magnificent installations.

The first piece that we saw was by Anselm Kiefer, a German artist born in 1945, who has lived and worked in France since 1993. 2007 was a memorable year for Kiefer, as he became the first artist to have a permanently installed work in the Louvre

since Georges Braque 50 years ago. The work on show was titled *For Vincente Huidobro: Life is a parachute voyage and not what you'd like to think it is* (2018). This piece features themes of mortality, spirituality and history, which Kiefer has focused on throughout his time as an artist. It's size works perfectly in the 9 x 9 x 9 gallery. Inside the rectangular glass cuboid is a piece of fabric, attached with string to a rusty bike, which is resting on dry, broken earth. The bike represents human life, and the parachute has celestial connotations. Despite relating to themes such as death, the work still represents the beauty of the striving nature of mankind.

We were then guided through to the private collections, which featured works by artists such as Tracy Emin, Christian Marclay, Damien Hirst, Georg Baselitz, Anthony Gormley and Theaster Gates. The work that caught my eye most of all was *Medicine Cabinet* by Damien Hirst, and a sculpture by Theaster Gates. Damien Hirst's *Medicine Cabinet* explores the links between life and death, as well as mankind's relationship with medicine. Hirst began making these cabinets during the 1980s and 1990s, when drug addiction became a huge problem, and as society was becoming more secular. Theaster Gates created a piece from reclaimed hose pipes, which he had gathered over time while his father was working as a roofer. Many of his pieces relate to the civil rights movement of the 1950s and 1960s. The use of hoses in his work reflects the fact that the police had been ordered to control the marches by using hose pipes.

We then had a look at two large installations by a Colombian artist called Doris Salcedo. Salcedo was born in Bogotá, in Colombia in 1958, and continues to work there today. She has had her work displayed across the world in galleries such as the Guggenheim Museum in New York, Tate Modern and Tate Britain. The first installation we saw was *Tabula Rasa* (2018), which contained five sculptures that dealt with the theme of sexual violence and isolation. Each table had been brutally destructed into tiny parts and then reconstructed, but still displaying the fractures caused by such an experience. Each table had been 'repaired' with glue, which represented the eventual healing of the mind yet the damage still showing. Although the tables seem whole, they are, in fact, extremely fragile, representing the fragile minds of the victims. Overall, this piece was extremely powerful and was much more than just five tables taking up different areas of a space.

The final piece we saw was *Palimpsest*. The work relates to the themes of trauma and grief, and creates a space for mourning. This piece deals with deaths of migrants over the past 20 years, who have drowned while crossing the Mediterranean or Adriatic. Salcedo collected the names of these people by going through newspapers, speaking to government organisations, and through calling the families of those who had been affected. Stone slabs cover the entire space where 300 names of victims periodically appear and disappear through intricate drops of water. Those who died before 2010 have their names spelt out in sand, and those who died between 2011 and 2016 have their names spelt out in the droplets. An image of crying is created through the flowing of water, which makes the space an active memorial. The constant glistening of these droplets of water reminds us of how these people will still live on within the work, which acts as a memorial.

Our visit to White Cube was useful and touching, and we all look forward to having more trips in the future.

HILL LIFE

Reflection on Life around the Hill

October truly is the march to the dull and sober. I'm not intending to sound like the proverbial schoolgirl or meagre scholar but, in October, gone are the sunny days, which are replaced by grey

and drizzle - and with none of the excitement those first winter frosts bring. The great happiness, and maybe only, amidst the season change in October is School Songs.

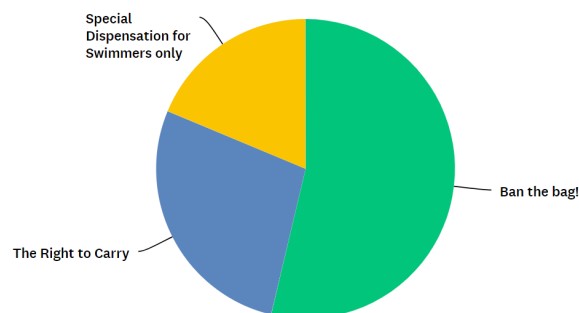
These Songs brought back our Harrow brothers in the 'twenty years on' cohort. This group were a particularly jovial collection, and seemed on good terms with many of the beaks; in fact, it seems that the Head Master taught most of them when he was a geography beak from his operating lair of Churchill Schools. Talking to the OHs, it seems that they got up to a lot of "no good" back in their day, far less "no good" than it seems happens today. Or maybe this was their misty-eyed hearts thrilling at the thought of the Hill? Interesting to remember that just as those monkey boys rejoiced at the lack of the steel pen, so those old boys at Songs were probably the last group for whom there truly was no personal computer; how times change! It would be interesting to know what the Shells made of their first whole-School Songs experience and whether those OHs gathered in the stalls in front of them were where they thought they would be twenty years on.

We now return from what I think is the SMT's epiphany, (the 12-day half term). October is gone, the clocks have changed and winter is coming. More overcoats, jumpers and scarves will be worn by boys trundling about the Hill as they go about their daily tasks. This is one of the prettiest and most characteristic times of the year for the Hill and with so much to anticipate: Long Ducker, Contio Latina, Remembrance Sunday, Churchill Songs, and the great advent of Christmas festivities and the carols with them. The first half of term has raced by but it is reassuring that there is so much to look ahead to before the Christmas break, much of which is engraved into the heart of the School's character.

WEEKLY POLL

"What should the official policy be for wearing backpacks up to School?"

With 472 votes in, it seems that the overwhelming response by boys is to enforce a "ban on the bag." Asked whether the "bag should be entirely banned as a blight on the uniform", and boys required to carry their books in their arms like they've always done, a strong 54% of the School decided to do away with it entirely. But there was an additional 18% who voted to ban it, *except* for a small mercy - awarded to the swimming team



only, a right to carry - so the vote together would suggest that a solid 72% of boys at the School think the bag is a bad idea. There is a small indulgent group of 28% who still bizarrely think that this new-fangled behaviour is acceptable.

The biggest supporters of the bag are The Head Master's (12% overall), Bradbys (13%), and The Grove (12%), who somehow think carrying a few books is too difficult for them. The most traditional (puritanical?) House is Emlfield, with a meagre 3% in support of bags, allied with Rendalls (5%), Druries (7%) and The Park (6%) - these are the Houses which are trying their best to maintain a modicum of order and dignity around the Hill. So well done to them.

CORRESPONDENCE

Letters to the Editors of *The Harrovian*

DEAR SIRS,

It was my impression that this year's Long Ducker had fewer boys running, and many more walking. I think Long Ducker lost not only its tradition, but its very soul when in 2016 the route was completely changed. Everyday, we walk past a sign which proudly says '10 miles to London' and the original Long Ducker was a run that celebrated the land which the School used to own, whilst also managing to raise an impressive amount of money. Since the route has changed, not only has tradition been lost and the run we do been made far uglier and more boring, and less money is raised each year.

In my view, the 'staggered departure' system that was started last year also makes the run far less enjoyable. The whole School starting together made the event really feel like a whole-School event (which it is and should be), but also created a fun and exciting atmosphere. Surely I cannot be the only one that misses the bustle and the chaos of everyone starting together – the House Masters trying to sort out the House photographs and everyone cheering each other on.

Furthermore, when everyone started together, the run was far more enjoyable as you always had people to run with and the finishing line in Bill Yard was far busier and had people coming in more frequently. When Long Ducker was changed to Wembley, it took a fatal stab, but the staggered departure has safely killed what was a really wonderful School event. I strongly urge that at least one of the two changes made is reversed.

Yours sincerely,
HENRY EMPSON, THE GROVE

OH WISDOM

"Sea ice is not simply frozen sea water – a 'geophysical phenomenon'. Sea ice is a habitat. It is a habitat for a globally unique 'floating ice-reef ecosystem' that supports some of the most popular mammals and apex predators in the world." Pen Hadow (*The Park 1975*³) Arctic Explorer, Advocate and Adventurer.



Pen is the director of the 90°North Unit, a charity organisation working with the United Nations to secure the world's largest marine reserve to protect its threatened floating ice-reef ecosystem.

Last week, he spoke at the UN's International Maritime Organisation's MEPC73 Conference recommending the protection of the Arctic Ocean environment.

GAFFE AND GOWN

Quips from Around the Hill

"Boy, what does *si on allait* mean?" "Senile.. I think it means old?"

"Look, for the last time, I didn't square up to a bus."

"How long have I been teaching you for?" (*deep sigh*) "Too long, sir."

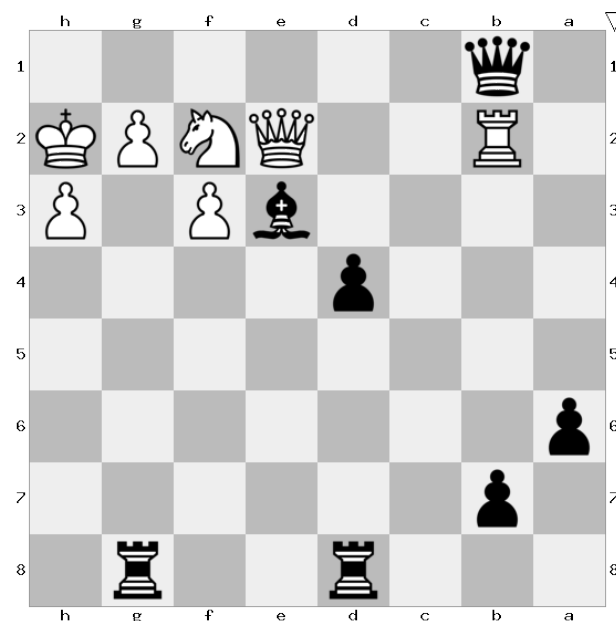
"Now boys, this linguistic device is a Greek word starting with letter b." "Onamatopeia, miss?"

"Why did you miss the rehearsal? I sent you an email." "Yes, the rehearsal was an hour ago. But this email was sent by you three minutes ago."

"Sir, do you get an extra 5% if a family member dies?" "Good grief! I think that's an urban myth." "Excellent pun, sir."

CHESS PUZZLE

The weekly Chess Puzzle is set by JPBH. Email your solutions to him to enter the termly competition. Answers are published with next week's puzzle.



Black to play and mate in 3.

Last week's solution: 1.Nf7. If 1....Bxf7 then 2.Rf4#. Otherwise 2.Nd6 or 2.Ng5 is mate.

Fancy playing chess? Drop in to Chess Club – Tuesdays and Thursdays 4.30-6pm in Maths Schools 5. All abilities (boy, beak or support staff) are welcome!

ALL SOULS' EXAM QUESTION

"Would you rather be a vampire or a zombie?"

Throughout history, there have been monumental debates that have ensnared nations in their monumental irrelevancy. These debates have taken countless hours wasting the time of even the greatest intellects. This year's All Souls College, Oxford, exam paper had this particular type of question. All Souls is one of the most revered colleges at Oxford. The question, deemed worthy by Oxford professors was "Would you rather

be a Zombie or a Vampire?”. Those wishing to enter All Souls would have to draw up their most frivolous wisdom if they wished to be counted among those at the college.

The vampire may seem like the obvious choice. They are always glamorous and alluring, and have the capability to turn into a bat at a moment's whim. Their skin is always unblemished and most of them have faces pale enough to almost rival any supermodel at a Milan fashion show. In fact, I would assert the notion that there are no overweight vampires. Although all vampires appear gaunt and without muscle, they all have the strength of ten men. This would no doubt be useful when attempting to impress those of a fairer sex at a social. As for avoiding the sun, what better excuse can there be to miss a plosive rugby session in the torrential rain on a Thursday afternoon? Long Ducker would also be made incredibly easy if one had the ability to switch one's aching legs for a pair of bat wings.

By contrast, being a zombie appears to be the worst possible scenario. Unlike the vampire, one looks disgusting. One's skin takes on a greenish quality seen usually on the most dedicated wastemen, whose diet of pot noodles and vape have made their skin as spotty as their greased faces. The analogy of the wasteman continues, as being a zombie automatically lowers one's intelligence to a set 9 Remove Maths class, period 5. However, a zombie would have to be separated from these like-minded wastemen, unable to be in Druries, Bradbys and Moretons due to the lack of brains in their near proximity. The zombie also fails where the vampire succeeds as their limbs and bones would break off in almost any sport. The zombie would also fall flat on its face at the social, unless women have recently started to look for peeling skin and mouldering flesh in their romantic partners.

However, there is one key problem with the vampire: its immortality. After the wheel of time turns, when the sun has shrunk to a small black ball in the sky, the vampire will be sitting on the earth, no doubt wishing he had spent less time discussing the incarcerated antics of Father Tivey's prisoners. The zombie, on the other hand, has his mortality. The zombie is also happy. You could never see a happier being, as it chomped away at the brains it had bashed out of a wayward music scholar. The vampire is instead moody and solemn due to his legal obligation to wear a perpetually billowing shirt with a frilly white ruff. He or she chooses to remain in dingy, dark castles. In short, it is better to be the fool (a zombie) satisfied than Socrates (a vampire) dissatisfied.

ASSESSING THE IMPACT

How WWI affected the Economy of Britain

I'm sure that you are all aware that the centenary of World War One's Armistice is coming this Saturday. There will hence come a plethora of articles about the headline costs of the war – perhaps even the total cost of the war. But how are these figures calculated and are they accurate?

Most analyses of the economic impact of the war focus on the *direct costs* measured in terms of the loss of life and the resources used. Occasionally, they might also include the costs of lost and damaged property.

The traditional methodology of estimating the cost of life follows the work of Bogart in 1920 after WWI, where he counts human capital as investment of child-rearing. However, this has been deeply criticised over time since; for example, it suggests that an infant's life has no value in itself. I now reference a Working Paper titled 'Collateral Damage: Trade Disruption and the Economic Impact of War' published in 2005 by Reuven Glick at the Federal Reserve Bank of San Francisco. We will return to the main thesis of the paper shortly, but relevant here is a proposition of a different methodology to measure the impact of the loss of life. By applying a Goldin and Lewis approach in which the 'cost of a life lost in the war was valued

at the prevailing average real wage, and the cost of a wounded individual at one half of this wage', Glick and Taylor suggest we can find the cost of a single life. Using this metric, they found that the costs were 4.4% of the GDP of Britain and around 2.5% of World GDP. The number of people killed is 'measured as permanent equivalent flow losses to GDP' because the men dying were young and able to work. But again, this is subject to criticism because it limits the value of a life to the present discounted value of future earnings. And by this logic, argues Jeffrey Frankel from Harvard and NBER, the life of a retired person has no value – a clear problem. Thus, I then reference a second and final paper for discussion in this article: 'The economics of World War One: a comparative quantitative analysis' from the Department of Economics at the University of Warwick. Broadberry and Harrison suggest in this paper that a better model is found 'in the work of Clark (1931)' who suggested that we subtract consumption from lifetime earnings. In doing so, we factor in that humans both produce and consume – rather than simply one or the other as in the previous models.

In order to estimate total direct costs, we return to the work of Bogart and the two other main components of direct costs – excessive government spending and the destruction of physical capital. Bogart calculates 'the flow of spending by governments on the prosecution of the war ie spending over and above pre-war levels'; whilst also subtracting 'inter-allied transfers... to arrive at net costs'. Broadberry and Harrison critique his presentation of the data as nominal values in US dollars, since wartime inflation and exchange rates would have skewed the data. Furthermore, Broadberry and Harrison also suggest that the government's spending on the war effort could enter positively in the national balance sheet by contributing to 'intangible physical capital in the form of cumulated research and development and intangible human capital in the form of spending on health and mobility'. In addition, when Bogart concludes by attempting to find the total cost of World War 1, he 'simply adds the direct and indirect costs to arrive at a grand total'. However, Broadberry and Harrison suggest that this is not a justified conclusion because it combines flows of spending with changes in stock assets.

It can be inferred that, because of these criticisms, a new methodology was needed. Broadberry and Howlett in 1998 published a new 'accounting framework for evaluating the long run impact of war on wealth'. This framework deals with the objections to Bogart's work by maintaining a clear distinction between stock and flow concepts, converting all nominal values to a constant price basis so that values of different years can be summed. They also consider consumption as well as production for human capital calculations, and acknowledge that technological change by wartime research and social spending can have a positive impact on the balance sheet.

Using this framework, Broadberry and Howlett found the direct costs of WW1 - or rather the costs of destruction of human and physical capital. These were calculated as a percentage of pre-war asset. There was a 3.6% destruction of human capital, 9.9% destruction of domestic assets, 23.9% destruction of overseas assets and 14.9% destruction of national wealth.

Recently, the effect of war on international trade has become noted as something to consider also. Glick and Taylor suggest that, whilst this is not commonly included in impact analysis of war, it is actually very important because it also affects neutral parties and thus generates a negative externality.

In the paper, Glick and Taylor apply a Gravity Model Methodology - aptly named from the fact it uses an analogy of Newton's universal law of gravity to describe the patterns of bilateral aggregate trade flows between two countries. It assumes that bilateral trade between two countries is proportional to their respective sizes, measured by their GDP, and is inversely proportional to the geographical distance between them. In the model they specify 'the average level of trade between any two

countries as a function of the log distance between them, the log of the product of their GDPs, and other control variables, as well as the current and lagged effects of countries at war’.

The actual maths involved is not for this article (thankfully). However, what is notable is that there are coefficients in the equation that describe the impact of war on trade levels for both adversary country pairs and neutral country pairs. These both capture the contemporaneous and lagged effects of war. This is done by estimating a ‘normal’ benchmark level of trade, assuming ‘that trade for each country would have stayed at the same level as that in the year before the outbreak of war’, and then inputting these trade levels along with the ‘gravity model war coefficients’. Finally, the authors ‘aggregate all country pairs and compute the ratio of aggregate world trade in the presence of war to the counterfactual level in the absence of war’ to find the impact of war on total world trade.

The data obtained for the impact of WWI on world trade using this methodology was a reduced world trade among adversaries of ‘roughly 12% in 1914-1915 and by almost 15% in 1916-1918’. Furthermore, the impact on world trade with neutral countries decreased ‘by an additional 5-6% in the period 1914-1918’.

In conclusion, the calculation of the full economic cost of World War One is immensely complex. The methodologies and models will continue to be developed, adapted and improved over time. It is a field of investigation that will keep economists occupied for years.

But, as we honour at this year’s Armistice and all those who gave their lives for their country, let us not forget that what was not included amongst the cold calculus of the methodologies and models above was the huge human and social cost of the war, including the cultural and emotional effects on the people and families involved.

CLASSICIST’S CREED

What can a video game teach us?

With the recent releases of Ubisoft’s *Assassin’s Creed Odyssey* and Rockstar’s *Red Dead Redemption 2*, the topic of whether it is possible that video games can be used in education has been debated. I am, of course, not speaking of ‘mymaths.com’ but of games that are not specifically made for educational purposes. I believe that it is possible to imagine a class learning from games as well as textbooks. I thus think that the criticisms of video games are unfounded.

I will first explore the worlds of ancient Greece and Egypt created by Ubisoft in the two most recent releases in their franchise of *Assassin’s Creed*. One may be forgiven when reading through Thucydides’ *History of the Peloponnesian War* for lacking enthusiasm or a real sense of immersion in the Greek world. *Odyssey* offers a unique experience to engage with the ancient world. Ubisoft have even created their ‘Discovery Tour mode’, which gives guides by expert historians who are professors at the best American universities and Oxford. One can discover ancient tombs inside pyramids; be told of the wondrous myths of the Minotaur; or even debate with Socrates on the ‘art of ruling’. On Ubisoft North America’s YouTube trailer for the Discovery Tour, many teachers commented on how they were going to use this in the classroom. One user stated that he introduced his Year 10 class to Egypt using this new mode. Surely this proves it is possible to use these video games in the classroom?

I would like to address the issue which has been consistently used against using *Assassin’s Creed* games: that they are not ‘historically accurate’ and hence cannot be used. This simply is not true. I have already explained how numerous historians have helped to create these games and that they have been approved by Classicists as factually correct. Of course, there is a certain degree of exaggeration and dramatisation with ‘Sparta

kicking’ enemies off mountains. However, that is not what I mean to define as educational. I would argue that these video games should not be used instead of learning from a textbook, but as an additional form of learning. This would mean that a student would have an idea of what one can ignore in the game as false depictions of the ancient world. Darren Dunning of the University of York explained that, in his opinion, ‘the biggest impact of video games will be on students who have not responded as well to traditional teaching methods. Nearly half of the teachers surveyed say it is the low-performing students who generally benefit from the use of games. More than half of teachers believe games have the ability to motivate struggling and special education students’. One could therefore suggest that video games could be used as an alternative learning method - perhaps like DFC’s famed “audio-visual” learning.

The second benefit of video games in education is that it helps improve problem-solving and perseverance skills. Emma Blakey, PhD researcher in developmental psychology at the University of Sheffield, states that ‘because we know memory is a crucial cognitive skill for school learning, practice at playing games that challenge memory should, in theory, lead to improvements in classroom behaviour and academic skills’. The reason we cannot make a complete conclusion about whether games do in fact improve memory is that the University of Cambridge’s current study in the subject has not yielded any results yet. ‘Fortnite’ is a key example of this. Players attempt to outbuild or somehow eliminate their opponents in a 100-player pvp. Brian Waniowski (former directing manager of the ‘Institute of Play’, an organisation investigating the benefits of video games), openly compliments Fortnite as a useful tool for developing memory, co-ordination and perseverance. I am, of course, not arguing that Fortnite should be used in the classroom but merely that its general use is generally beneficial.

I hope that I have persuaded you that with the new digital-age video games can be used by teachers as an aid to engage students more. The USA has already embraced the use of videogames, with nearly 20% of teachers saying that they have used digital games (not designed for education e.g. mymaths.com) to help their students with over 80% of teachers saying that it has helped their students’ overall happiness and grades. This would, in practice, be very expensive to implement in most English state schools, with many being underfunded, but could we see our most prestigious public schools adopting the idea? Bring games to Harrow!

FIVES

The School v Charterhouse, 1 November

Senior Won 2-0

Freddy Anton Smith, *The Head Master’s*, and Anthony Cho, *Elmfield*, enjoyed themselves at first pair, winning 3-0 even with their opponents persevering well. Theo Seely, *The Head Master’s*, and Panav Patel, *Elmfield*, also enjoyed a comfortable win with some clever play and excellent variety of cuts.

Colts Won 3-0

All pairs won easily including boys who had not played for the School for some time.

Junior Colts Won 4-0

All pairs won well with the new combination of John Richardson, *Elmfield*, and Nathan Shepard, *The Park*, playing at first pair and combining well together to produce a strong performance of 3-0.

Yearlings Won 2-0

All the Yearling boys who played enjoyed their matches and are now starting to understand the game more. It is going to be very a tough competition between them as to who plays at the top pairs looking forward.

The School v Highgate School, 3 November

Seniors Won 2-0

Notable mention must go to Aria Shirazi, *Rendalls*, and Hugo Rowse, *Newlands*, who managed to win 3-2 at first pair with the last three sets going to step all. The atmosphere in the last set was amazing and several times Harrow were behind. However some great play from both boys saw Harrow home 15-14 after two and a half hours.

Colts Won 3-0

At Under-16, first pair Phoenix Ashworth, *The Head Master's*, and Jonny Barley, *The Grove*, played up a year and, although they started slowly, they also went on to win 3-0 overall.

SQUASH

The School v Dr Challenor's (away), 18 October

Junior Colts Lost 2-6

WTC Sotir, *Druries*, Lost 0-3I Qureshi, *The Park*, Won 3-1APC Gupte, *West Acre*, Lost 1-3CR O'Flaherty, *The Head Master's*, Lost 0-3HC Oelhafen, *Lyon's*, Lost 0-3DJP Wauchope, *The Knoll*, Lost 0-3ALO Du Roy De Blicquy, *Elmfield*, Won 3-2ST Pound, *Rendalls*, Lost 0-3

FOOTBALL

The School Development B XI v Old Harrovian XI, Lost 1-3

Scorer: Fin Scott, *Rendalls*. A close game of football in this friendly fixture against the Old Harrovians. It was a classic game of two halves that was heavily dictated by the windy conditions. The School made the worst start possible by conceding a penalty straight from the kick-off. After gathering themselves and playing some good football, Fin Scott, *Rendalls*, scored what turned out to be a consolation goal in a dominant second-half display.

RACKETS

The School v Tonbridge School

Senior 1st Pair Lost 1-3

An excellent effort against a very strong pair by Otto Stroyan, *The Grove*, and Julian Owston, *Moretons*, despite a 1-3 loss.

Senior 2nd Pair Lost 2-3

Despite having match point in the third game, Luke Harrington-Myers, *Bradlys*, and Cameron Mahal, *The Grove*, lost narrowly 2-3 in the set of the final game

Colts 1st Pair Won 3-1

A strong performance from Ben Hope, *Rendalls*, and Jude Brankin-Frisby, *Newlands*, in a 3-1 win.

Junior Colts 1st Pair Lost 0-3

A promising performance despite a 0-3 loss for Phoenix Ashworth, *The Head Master's*, and Henry Oelhafen, *Lyon's*.

RUGBY

The School v Tonbridge School, 1st XV Lost 24-25

In a season-defining game away to Tonbridge, Harrow fell short. The conditions were superb for running rugby and the game was fast paced from the off. Harrow managed to blend the wonderful with the woeful throughout, with outstanding attacking play frequently undermined by dire defence. In the end, galvanising performances from the likes of Anjo Ademuwagun, *Druries*, Alastair Llewellyn Palmer, *Lyon's*, Daniel Adebayo, *The Head Master's*, and Oliver Johnson, *Rendalls*, were not enough to compensate for a below-par team effort. The final score was 25-24 to Tonbridge. Scorers: Adebayo (2), Ademuwagun, Llewellyn Palmer, Coldicott: 2 conversions

2nd XV Lost 10-29

3rd XV Lost 15-26

4th XV Lost 7-56

5th XV Won 21-17

Colts A Lost 14-50

It was a game of two halves, as they say. Scorers were Herbie Smith, *Newlands*, and Henry Arundell, *The Knoll*. An excellent solo effort by Arundell was the highlight of the day.

Colts B Lost 17-26

Colts C Lost 10-25

Colts D Lost 14-27

Junior Colts A Lost 17-19

The Junior Colts lost this close and physical encounter despite having the majority of the possession and territory throughout the game. Three opportunistic tries from Tonbridge were enough to secure victory against a naive Harrow side on the day. On to next week. Scorers: Lukas Edstrom, *Bradlys*, Ehiada Garuba, *Newlands*, Sam Dunn, *Rendalls*, Seb Phillips, *Rendalls*, 1 x conversion

Junior Colts B Won 36-14

Junior Colts C Lost 0-67

Junior Colts D Lost 0-52

Junior Colts E Lost 0-50

Yearlings A Won 52-38

Fourteen tries in a phenomenal game of rugby. Hat-trick from Cameron Ellis, *Rendalls*, to close out the win.

Yearlings B Won 22-7

Yearlings D Lost 12-26

Yearlings E Lost 19-92

Yearlings F Lost 36-44

The Academy Won 1-0

Ways to contact *The Harrovian*

Articles, opinions and letters are always appreciated.

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