The New Collection
The New Collection 2016

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This year the New Collection celebrated its 10th anniversary, and we are proud to present the 11th edition! Submissions have come from a wide range of disciplines, highlighting but a fraction of the fascinating research undertaken at New College, Oxford.

Whereas each article is aimed for a general academic readership, it has been written and reviewed by experts in the field, both by Middle Common Room (MCR) peer reviewers and Senior Common Room (SCR) academic staff. We would like to thank this community for the extensive feedback received, and we trust numerous fruitful discussions and future projects will arise from this work.

Indeed, new contributions towards the next volume of this journal are strongly encouraged. Whether they are reexaminations of the works herein, or entirely new inspirations, we look forward to welcoming the latest research manuscripts. Submission guidelines are located at the back of the journal.

The cover photo we have chosen for this issue was taken by Yuqian Gan (Earth Sciences), entitled ‘Fragrant Forest’. It depicts the replacement of the Old [knowledge, life, ...] with the New, as captured by the words of Liu Yuxi (772-842), Tang Dynasty, Imperial China:

In a fragrant forest new leaves replace the old,
in a bubbling stream back waves push the front.

We hope you will enjoy reading this edition of The New Collection, and that it may help to inspire novel ideas.

On behalf of the editorial team,
Arnold Mathijssen, Editor-in-chief.
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All contributors are members of the MCR of New College at the University of Oxford. They can be contacted at New College, Oxford OX1 3BN.

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The Warden’s Foreword

Many scholars and scientists have split personalities in terms of publication. Of course they need to write books and articles which can only be fully understood by other specialists in the field. But if they also want to get their ideas to a wider public (and sometimes to make money), they need to produce so-called ‘trade’ books and popular articles, almost inevitably dumbed down or generalised to the point that they cannot withstand scholarly scrutiny. Some dream of writing a trade book, with sales in the tens of thousands, which will be hailed simultaneously as an original contribution to the field. Few succeed: rare indeed are Steven Pinker’s *The Language Instinct*, Richard Dawkins’s *The Selfish Gene* and (staying within the family) Robin Lane Fox’s *Alexander the Great*, the *locus classicus* of the genre.

*The New Collection* encourages members of the MCR to write articles which can pass muster with the SCR Review Committee but also be understood by a general readership. Once again this year, the range of subjects covered is very wide but also shows a remarkable depth of quality. And most of the articles are also topical and thus inherently interesting and important.

Looking back over previous issues of *The New Collection*, even those from recent years, it is gratifying to spot the names of Old Members who are already making a mark in their respective fields. While perhaps no one has yet produced the next *Selfish Gene*, this admirable journal is obviously providing a platform for those who want to learn how to present sophisticated ideas and research to those in other fields. I commend this issue to all with the curiosity to learn about new and sometimes difficult subjects without fear of being talked down to.

Sir Curtis Price, Warden of New College Oxford
Papers published 2015/2016

This is the first year in which The New Collection does not only publish its own articles, but also a list of articles by New College MCR members that are accepted by other peer-reviewed journals between June 1st 2015 and June 1st 2016. We are happy to present and congratulate the following entries:


Criminalization on the Basis of Sexual Orientation and Gender Identity: Reframing the Human Rights Discourse

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Working paper

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1This work arose out of a dissertation for the MSt. in International Human Rights Law, University of Oxford. It constitutes a working paper and is not for citation without the permission of the author.
Introduction

Over one-third of countries still have laws that criminalize people on account of their actual or perceived non-normative sexual orientations and/or gender identities. More than half of these laws were inherited from the British colonial era and have been maintained by postcolonial regimes. Legislation typically outlaws specific types of sexual activity or any sexual activity between persons of the same sex. Some provisions prohibit “sodomy” or “buggery,” while others are drafted in broader language, such as “carnal knowledge against the order of nature,” “debauchery,” or “gross indecency.” In some cases, the death penalty may be imposed as punishment for these crimes. These criminal provisions have been disproportionately used to sanction same-sex acts, including consensual conduct between adults and other behaviour of individuals whose real or perceived sexual orientation, gender identity does not conform to established heterosexual and binary male/female norms. Some laws specifically proscribe gender identity and/or gender expression by banning conduct such as “imitating

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2 Sexual orientation refers to each person’s capacity for emotional, affectional, and sexual attraction to, and intimate and sexual relations with, individuals of a different gender, the same gender, or more than one gender. Gender identity refers to each person’s deeply felt internal and individual experience of gender, which may or may not correspond with the sex assigned at birth. ‘Yogyakarta Principles on the Application of International Human Rights Law in Relation to Sexual Orientation and Gender Identity’ (2007) http://www.yogyakartaprinicples.org/ accessed 30 May 2016.

3 For example, laws in over three dozen countries in Africa, Asia and the Pacific - from Nigeria to Uganda and from India to Papua New Guinea - derive from a single law on homosexual conduct introduced by British colonial rulers in India in 1860. Other colonial powers such as France had far less impact in the spread of such laws. Human Rights Watch (HRW), ‘The Origins of “Sodomy” Laws in British Colonialism’ (2008) http://www.hrw.org/sites/default/files/reports/lgbt1208webcover.pdf accessed 30 May 2016.


5 Ibid 36, 63.

6 In Uganda for example, two lesbian women were arrested after having arranged a private engagement ceremony. They were not engaging in any sexual activity at the time of the arrest. Outright Action International, ‘End the Criminal Treatment of LGBT People’ (2009) https://www.outrightinternational.org/content/iglhrc-commentary-end-criminal-treatment-lgbt-people accessed 3 May 2016.


8 The term gender expression refers to the “way in which a person acts to communicate gender within a given culture; for example, in terms of clothing, communication patterns, and interests.” A person’s gender expression may or may not be consistent with socially prescribed gender roles, and may or may not reflect a person’s gender identity. American Psychological Association, ‘Guidelines for Psychological Practice with Lesbian, Gay, and Bisexual Clients’, (2012) http://www.apa.org/pubs/journals/features/amp-a0024659.pdf accessed 5 May 2016, 11.
the appearance of the opposite sex.\footnote{Office of the High Commissioner for Human Rights (HCHR), ‘Born Free and Equal: Sexual Orientation and Gender Identity in International Human Rights Law’ (2012) UN Doc HR/PUB/12/06, 45.}

These criminal laws are increasingly being challenged on the basis that the laws themselves and/or their disproportionate application to lesbian, gay, bisexual, transgender and intersex\footnote{The terms lesbian, gay, bisexual, transgender and intersex are used in this paper because they are commonly found in the international human rights discourse. However, there are many ways to conceptualize same-gender sexual conduct or sexual and gender identities and practices that challenge the privilege given to heterosexuality and the two-gender male/female binary. The terminology and lived experience of individuals will vary significantly across different historical, political, cultural and social contexts. The term lesbian describes a woman whose enduring physical, romantic and/or emotional attraction is to other women. The word gay generally refers to a man whose enduring physical, romantic and/or emotional attraction is to other men. In some contexts, gay refers to all persons, regardless of gender, who have an emotional attraction to individuals of the same sex. Bisexual describes a person who has the capacity to form enduring physical, romantic and/or emotional attraction to both men and women. Transgender refers to a person whose gender identity differs from what is typically associated with the sex assigned at birth. The term intersex describes a person born with sex characteristics (including genitals, gonads and chromosome patterns) that do not fit typical notions of male or female bodies. In this paper, gender identity also incorporates intersex. Gay and Lesbian Alliance Against Defamation (GLAAD), ‘Media Reference Guide’ (2010) http://www.glaad.org/files/MediaReferenceGuide2010.pdf accessed 15 May 2016; Office of the High Commissioner for Human Rights (HCHR), ‘Intersex Fact Sheet’ (2015) https://unfe.org/system/unfe-65-Intersex_Factsheet_ENGLISH.pdf accessed 15 May 2016.} (LGBTI) persons, violate human rights. The dominant legal discourse under international human rights law conceptualizes such criminalization in two specific ways: first, these laws are viewed as a violation of states’ obligations to protect the privacy of LGBTI persons; second, these laws are characterized as an infringement of the guarantee of non-discrimination. However, insufficient attention has been paid to the impact of LGBTI criminalization\footnote{The terms LGBTI criminalization and laws used to criminalize people on the basis of their sexual orientation and gender identity will be used interchangeably to refer to the criminal laws described in this introduction.} on the right to freedom from torture and other cruel, inhuman or degrading treatment or punishment.

With a view toward addressing this gap, this paper examines the current discourse under the international human rights legal framework regarding laws used to criminalize people on the basis of their sexual orientation or gender identity. It shows that the United Nations (UN) human rights mechanisms have generally conceptualized such criminal laws as a breach of the rights to privacy and non-discrimination, but that there is increasing acknowledgement of the relationship between these criminal laws and the inhuman and degrading treatment—and sometimes torture—suffered by LGBTI individuals. However, a
more rigorous and consistent approach is required to reflect the nature of this relationship.

In appropriate cases, the assertion of the non-derogable, customary law prohibition against torture and other cruel, inhuman or degrading treatment may provide legal recourse to those challenging LGBTI criminalization in the national context where it would not otherwise be available under the prevailing privacy/non-discrimination paradigm. This paper calls for greater recognition in legal discourse under international human rights law of the relationship between LGBTI criminalization and acts which constitute inhuman and degrading treatment, and torture. In particular, it underlines the need for a greater understanding of the ways in which such criminalization serves to foster and reinforce the stigmatization of LGBTI individuals and increases their vulnerability to inhuman and degrading treatment, and in some cases torture.

**LGBTI Criminalization in Context: UN Human Rights Mechanisms**

In order to understand the implications for LGBTI rights of the dominant UN discourse on criminalization, it is useful to provide some background on the UN human rights mechanisms that have contributed significantly to shaping this discourse. The adoption of the Charter of the United Nations, the foundational treaty of the UN, in 1945 was a breakthrough for international human rights, treating human rights as a core value of the UN. The proceeding decades witnessed the adoption of a wide array of international human rights treaties on a range of themes. Many of the major human rights treaties include undertakings by states parties to accept the oversight of committees called treaty bodies.

At the global level, the United Nations human rights treaty bodies, composed of independent experts, have primary responsibility for monitoring the compliance of states parties with their international human rights treaty obligations. These bodies include, for example, the Human Rights Committee (HRC) monitoring compliance with the International Covenant on Civil and Political Rights (ICCPR), the Committee on Economic, Social and Cultural Rights (CESCR) monitoring compliance with the Covenant on Economic, Social and Cultural Rights (CESCR).

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12 For example, the constitutionality of the crime of sodomy was upheld in *Banana v State* [2000] 4 LRC 621 (Supreme Court of Zimbabwe) on the basis that non-discrimination provisions did not include sexual orientation. The recently enacted Constitution of Zimbabwe Amendment Act (No. 20) (2013) does not expressly list sexual orientation alongside the prohibited grounds of discrimination, and prohibits persons of the same sex from marrying each other.

Rights, the Committee Against Torture (CAT) monitoring compliance with the Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment, as well as the Committee on the Elimination of All Forms of Discrimination against Women (CEDAW) and the Committee on the Rights of the Child (CRC) monitoring compliance with the human rights obligations in the respective treaties that created them.

The treaty bodies perform a number of functions in accordance with the provisions of the treaty that established them. These may include consideration of complaints by any individual claiming that their rights under the treaty have been violated and consideration of reports submitted by states parties of a treaty on compliance with their human rights obligations. The treaty bodies publish “concluding observations”, which consist of their views and recommendations in response to states parties’ reports. The treaty bodies also adopt “general comments” interpreting treaty provisions.\textsuperscript{14} The human rights treaties themselves are binding law. The work of the expert UN human rights treaty bodies are not by themselves legally binding, although they are authoritative.\textsuperscript{15}

In addition to the UN human rights treaty bodies, the UN Human Rights Council, an inter-governmental body of 47 UN member states, has its own mechanisms for responding to gross human rights violations and has developed “special procedures” consisting of independent experts called Rapporteurs and working groups. The UN Human Rights Council also conducts the Universal Periodic Review, a mechanism by which the human rights record of each UN member state is reviewed against applicable human rights standards every four years.\textsuperscript{16}

The members of the Human Rights Council are elected from among the member states of the UN General Assembly. The General Assembly is an inter-governmental body composed of representatives of all 193 member states of the United Nations. The Human Rights Council and the General Assembly each adopt “resolutions” which are formal expressions of the opinion or will of these bodies.

\textsuperscript{16}UNGA Res 60/251 (2006), UN Doc. A/RES/60/251, para. 5(e).
LGBTI Criminalization, Privacy and Non-discrimination

There is no international treaty expressly protecting the rights of LGBTI individuals; however, there is a growing trend toward recognition of these rights within the existing framework of international human rights law. On numerous occasions, international human rights treaties have been interpreted to include persons of diverse sexual orientations and gender identities within their scope, and states have been called upon to protect their rights in the face of violations.\textsuperscript{17} Critiques of state non-compliance with human rights obligations include criticism that many states maintain laws criminalizing people on the basis of sexual orientation and/or gender identity.

Until the 1990s, the UN human rights system did little to address the criminalizing of consensual same-sex relations between adults, nor did it recognize in any significant way human rights violations suffered by individuals on the basis of sexual orientation or gender identity. In the treaty bodies, a breakthrough came on matters in relation to sexual orientation in the complaint of \textit{Toonen v Australia},\textsuperscript{18} in which the UN Human Rights Committee (HRC) – the body of experts that monitors states parties’ compliance with the ICCPR – concluded that Tasmanian criminal laws prohibiting adult consensual same-sex acts in private breached the rights to privacy and non-discrimination guaranteed by the Covenant.\textsuperscript{19} The Committee found that the laws were not necessary to protect public morals or health and jeopardized the effectiveness of HIV/AIDS prevention programs by driving the individuals targeted underground. The Committee interpreted the reference to “sex” in the Covenant to include sexual orientation as a prohibited ground of discrimination.\textsuperscript{20}

In its concluding observations (in response to states parties’ reports on their compliance with the ICCPR), the HRC has frequently relied on the legal reasoning from \textit{Toonen} to urge countries to repeal legislation prohibiting adult consensual same-sex sexual conduct on the basis that it breaches the rights to privacy and non-discrimination.\textsuperscript{21} Citing the guarantee of non-discrimination, the Committee has

\textsuperscript{19}ICCPR (adopted 16 December, entered into force 23 March 1976) 999 UNTS 171, arts. 2, 17 and 26.
\textsuperscript{20}ibid, arts. 2(1) and 26; \textit{Toonen} (n 18) [8.2-8.6].
also criticized laws targeting persons on the basis of gender identity and gender expression. While the Committee has relied heavily on the rights to privacy and non-discrimination in addressing such criminal laws, it has made much more limited reference to other rights, including the right to freedom from torture and other cruel, inhuman, or degrading treatment or punishment.

Among the UN treaty bodies, the HRC has been the focal point for the consideration of legislation criminalizing persons on account of their sexual orientation or gender identity, and it is the only treaty body to have had occasion to consider an individual complaint alleging a specific violation of rights on this issue. Other treaty bodies, including the Committee Against Torture, the Committee on Economic, Social and Cultural Rights (CESCR), the Committee on the Elimination of All Forms of Discrimination against Women (CEDAW) and the Committee on the Rights of the Child, have also addressed the matter, albeit to a lesser extent, in their concluding observations and general comments. Some special mandate-holders, such as the Special Representative of the Secretary-
General on the Situation of Human Rights Defenders, have echoed the analysis from *Toonen*\(^{25}\) to criticize laws sanctioning same-sex acts as a violation of the rights to privacy and non-discrimination.\(^{26}\) A few mandate-holders, such as the Special Rapporteur on Torture and the Working Group on Arbitrary Detention, have begun to expand the analysis beyond the *Toonen* framework to underscore the role of the criminalization of same-sex sexual acts in fostering prejudice and heightening the vulnerability of affected individuals to violence, including torture and inhuman and degrading treatment.\(^{27}\)

Violence and discrimination on the basis of sexual orientation and gender identity has received unprecedented recognition at the inter-governmental level of the UN in the last decade, beginning with a UN General Assembly (UNGA) resolution on extrajudicial executions that called attention to the killing of individuals due to their sexual orientation\(^{28}\) and, later, gender identity.\(^{29}\) In recent years, the Human Rights Council has adopted two resolutions on human rights violations based on sexual orientation and gender identity,\(^{30}\) leading to the first official UN report on violations of rights on account of sexual orientation and gender identity worldwide. Citing *Toonen*,\(^{31}\) the report called for the repeal of the impugned laws, underlining that “criminalization of private consensual homosexual acts violates an individual’s rights to privacy and to non-discrimination and constitutes a breach of international human rights law.”\(^{32}\) The Human Rights Council’s Universal Periodic Review (UPR) has also engaged states on matters of sexual orientation and gender identity as part of their reviews: states have, for example, been urged to decriminalize same-sex activities

\(^{25}\) *Toonen* (n 18).

\(^{26}\) Human Rights Council, ‘Report of the Special Representative of the Secretary-General on the Situation of Human Rights Defenders, Addendum: Summary of Cases Transmitted to Governments and Replies Received: Burundi’ (4 March 2009) UN Doc A/HRC/10/12/Add.1, [350].


\(^{31}\) *Toonen* (n 18).

\(^{32}\) UN High Commissioner for Human Rights (HCHR), ‘Discriminatory Laws and Practices and Acts of Violence against Individuals Based on their Sexual Orientation and Gender Identity’ (17 November 2011) UN Doc A/HRC/19/41, [84].
between consenting adults. While state support for measures to protect the rights of LGBTI persons has increased in recent years, there remains significant opposition, including through states’ refusals to implement relevant UPR recommendations. In recent years, key UN officials, such as the Secretary General and the High Commissioner for Human Rights, have increasingly called for “the global elimination of laws that criminalize LGBTI people and target them for prosecution, harassment, discrimination, and violence.” However, the emphasis has tended to focus on a link between criminalization, stigmatization, and violence in general rather than specific references to potential violations of the prohibition against torture and other cruel, inhuman, or degrading treatment.

The foregoing examination demonstrates that the UN human rights system has drawn significant inspiration from the HRC’s approach in Toonen, which helped lay the foundation for characterizing LGBTI criminalization as a violation of the rights to privacy and non-discrimination. In contrast, there has been limited recognition of the profoundly stigmatizing impact of criminal laws and the potential for such criminalization to heighten the susceptibility of LGBTI persons to torture and other cruel, inhuman, or degrading treatment or punishment.

### Beyond the Privacy and Non-Discrimination Paradigm

The dominant legal discourse focusing on LGBTI criminalization as a violation of the rights to privacy and non-discrimination plays an important role in legal and political challenges to such laws. Both the protection of privacy and the guarantee of non-discrimination are essential to critiques of LGBTI criminalization. Such criminal laws deny privacy as they effectively define same-sex sexuality or non-conforming gender identity and expression as harmful or abusive when they are

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34 For example, in response to a recommendation by the Human Rights Council to decriminalize same-sex acts between consenting adults, the government of Benin stated that it did not contemplate any such decriminalization in the near future. Human Rights Council, ‘Report on 8th Session’ (2008) UN Doc A/HRC/8/52, [714].


36 Toonen (n 18).
The legal recognition of this breach of privacy rights highlights the notion that individuals should have an area of liberty free from state intervention. It also reflects the idea that the function of criminal law should be to prevent harm, not to legislate moral values. However, a focus on the right to privacy risks relegating LGBTI people to a private realm, when in fact the impact of criminalization can significantly implicate a host of behaviours, such as gender expression in public spaces. Moreover, the private-public dichotomy can encourage assumptions about non-intervention by the state in the “private” areas of the family and community, where LGBTI individuals nevertheless remain at risk of violence that may be committed with impunity.

The guarantee of non-discrimination strengthens the legal critique of LGBTI criminalization by challenging entrenched hierarchies of sexuality and gender. In general, the principle of non-discrimination prohibits any distinction that is based on an enumerated ground of discrimination and “has the purpose or effect of nullifying or impairing the recognition, enjoyment or exercise by all persons, on an equal footing, of all rights and freedoms.” Laws criminalizing same-sex sexual conduct discriminate based on sexual orientation by criminalizing acts that tend to define the intimate expression of subordinated groups—gay men and lesbian women—while they permit the same conduct by people conventionally termed heterosexuals. Laws also discriminate based on sexual orientation and gender identity when they are used to criminalize persons who are perceived to defy established norms of heterosexuality or binary male/female gender identity. Even criminal laws that are written in neutral terms as to the parties to the acts may be disproportionately enforced against LGBTI individuals and thus may be discriminatory. The joint privacy and non-discrimination rationale provides a solid basis for critiquing certain implications of LGBTI criminalization. However, it is important to question whether this rationale should be expanded to encompass the potentially heightened susceptibility to cruel, inhuman, or degrading treatment and torture to which LGBTI people may be subjected due to criminal laws targeting them.

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40 MacKinnon (n 37) 1081-1082.
LGBTI Criminalization and the Prohibition of Torture and Ill-treatment

The prohibition of torture and other cruel, inhuman, or degrading treatment or punishment is included in a number of international and regional human rights treaties.\(^{41}\) The prohibition is generally accepted as a part of customary international law binding on all states and is non-derogable, meaning that it applies in all circumstances without limitation.\(^{42}\) Its aim is to protect the individual’s human dignity and physical and mental integrity.\(^{43}\)

Torture is generally understood as any act done at the instigation of, or with the consent or acquiescence of, a public official or other person acting in an official capacity that intentionally inflicts severe physical or mental pain or suffering in order to fulfill a certain purpose, such as to obtain information or confessions or the punishment, intimidation of, or discrimination against a person.\(^{44}\) Article 16 of the Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (CAT) specifically covers “other acts of cruel, inhuman, or degrading treatment or punishment which do not amount to acts of torture.” In cases of cruel, inhuman, or degrading treatment, a certain minimum of physical or mental pain or suffering is imposed, however, one or more of the essential elements of the term torture is absent, in particular the relative intensity of pain and suffering, the fulfillment of a specific purpose, and/or the intent of the perpetrator.\(^{45}\)

Numerous reports have documented incidences around the world of physical abuse, including murder, sexual assault, beatings, stabbings, and kidnappings, as well as psychological harm, such as coercion or threats, inflicted on account of a person’s actual or perceived sexual orientation and/or gender identity. Such conduct is perpetrated by state agents as well as private actors, and occurs in a variety of contexts including detention facilities, medical institutions, and home.

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\(^{42}\) Prosecutor v Furundzija (Trial Judgment) ICTY-95-17/1-T (10 December 1998), [153]; ICCPR (n 19) art. 4(2); CAT Committee, ‘General Comment 2’ (2008) UN Doc CAT/C/GC/2, [1].

\(^{43}\) HRC, ‘General Comment 20’ (1992) UN Doc HRI/GEN/1/Rev.1, [2].

\(^{44}\) Convention Against Torture (n 41) art. 1.

\(^{45}\) Manfred Nowak, The *UN Covenant on Civil and Political Rights: CCPR Commentary* (N.P. Engel, Kehl 2005), 129-130; CAT Committee (n 42) [10].
and public settings. A common characteristic of many attacks against LGBTI people is their particular brutality as compared to other bias-motivated violence, more frequently demonstrating severe cruelty such as burning and mutilation.46

Where individuals are criminalized on the basis of sexual orientation and gender identity, they face a risk of arrest, prosecution, imprisonment, and, in some countries, hard labour, corporal punishment (including flogging), and the death penalty.47 The impact of criminalization extends beyond the threat of prosecution and sentencing. Criminologists have identified the significant influence of culture, religion, media, and other discourse in constructing and interpreting crime as “cultural criminalization.” In some cases, “cultural criminalization stands as an end in itself successfully dehumanizing or de-legitimating those targeted though no formal legal charges are brought against them.”48

Laws criminalizing LGBTI persons can lead to their stigmatization, which has been documented as a frequent precursor to torture or ill-treatment.49 At the point of arrest, prosecution, and punishment, LGBTI persons may face various forms of abuse perpetrated by police, including being stripped of clothing and being subjected to threats of rape and death and physical and sexual assault, which may amount to inhuman or degrading treatment or torture.50 The practice of subjecting men suspected of homosexual conduct to non-consensual anal examinations in an attempt to purportedly provide physical evidence of homosexuality contravenes the prohibition of ill-treatment.51 In detention facilities, sexual or gender non-conforming individuals may be especially at risk of threats and physical and sexual abuse. Male-to-female transgender prisoners have been recognized as being particularly susceptible to such abuse if placed within the


47 ILGA (n 4).


50 OHCHR (n 46); HCHR (n 32) [35]; Amnesty International (n 46). See also Zontul v Greece App no 12294/07 (ECHR, 17 January 2012), in which the ECHR concluded that the rape of a gay migrant with a truncheon by a Greek coastguard officer supervising him amounted to an act of torture in breach of art. 3.

51 Human Rights Council (n 27) [32-33].
Criminalization on the Basis of Sexual Orientation and Gender Identity

52 LGBTI people in detention may be subjected to torture or ill-treatment on account of their sexual orientation and/or gender identity by police officers, prison guards, or other inmates while state agents fail to protect them. Poor conditions of imprisonment imposed on account of a person’s sexual orientation or gender identity can lead to severe psychological harm, which may amount to inhuman or degrading punishment or potentially torture. Criminal sanctions imposed on account of sexual orientation or gender identity resulting in a long period of hard labour, imprisonment, or corporal punishment imposed judicially, such as flogging or stoning, may constitute torture or cruel, inhuman or degrading treatment or punishment. The mere possibility that the death penalty can be applied as punishment for same-sex sexual acts “threatens the accused for years, and is a form of cruel, inhuman or degrading treatment or punishment.”

53 Abuses in health settings, for example, a person suspected to have contravened a prohibition on same-sex relations was arrested and charged with “gross indecency,” forced to remain naked in public view at an airport police post, sexually assaulted and placed in detention, where police left his cell unlocked and incited other detainees to assault him. Amnesty International (n 46) 12.

54 X v Turkey App no 24626/09 (ECHR, 27 May 2012): The ECHR held that the treatment the imprisoned applicant suffered on the basis of sexual orientation contravened the prohibition of torture and ill-treatment. The applicant was a gay man who was moved to a cell normally used for solitary confinement. The Court found that his exclusion from prison life and other poor conditions of detention amounted to inhuman or degrading treatment. These acts, combined with a lack of effective remedy, breached art. 3 of the European CHR.

55 X, Y and Z v Minister voor Immigratie, Integratie en Asiel, Cases C-199/12 to C-201/12 (Court of Justice of the European Union, 11 July 2013) Opinion of Advocate General Sharpston, 5; Amnesty (n 46) 11; HRC (n 43) [5].

56 HCHR (n 32) [46].

57 The High Court of India has recognized that “studies conducted in different parts of world including India show that the criminalisation of same-sex conduct has a negative impact on the lives of these people. Even when the penal provisions are not enforced, they reduce gay men or
example, may be tantamount to cruel, inhuman, or degrading treatment or possibly torture. Non-consensual medical and scientific experimentation is expressly identified as a form of torture or inhuman or degrading treatment under article 7 of the ICCPR. Attempts to change a person’s sexual orientation or gender identity by force or coercion, such as forced electroshock therapy, sterilization, sex-reassignment surgery, drug injection, or hormonal therapy, may amount to cruel, inhuman, or degrading treatment, or potentially torture. Other abuses perpetrated against LGBTI individuals in healthcare settings that may be tantamount to cruel, inhuman, or degrading treatment or torture include denial of medical treatment, verbal abuse or public humiliation, involuntary institutionalization, and medical examinations.  

Severe pain and suffering inflicted on LGBTI individuals by private actors may violate the prohibition of torture and ill-treatment, where it could be argued that public officials failed to exercise due diligence to prevent, investigate, prosecute, and punish these acts. This principle may apply, for example, to LGBTI persons who are subjected to harm by non-state actors through acts that include rape, forced marriage, retaliatory violence by former partners, and crimes committed in the name of “honour” by family members. Burning and destruction of the homes of a subordinated group, including LGBTI individuals, by private actors may constitute cruel or inhuman treatment in the face of inaction by police aware of the immediate risk. In such instances, the Committee Against Torture (the expert body that monitors states parties’ compliance with the Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment) may consider that the state bears responsibility and its officials should be considered as authors, complicit or otherwise responsible under the CAT for consenting to or acquiescing in impermissible acts. In a review of an asylum application involving a transgender woman who had been kidnapped, beaten and raped by a group of men in her country, an American court took an even broader interpretation of “acquiescence,” concluding that the phrase was

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women to what one author has referred to as ‘unapprehended felons’, thus entrenching stigma and encouraging discrimination in different spheres of life. Apart from misery and fear, a few of the more obvious consequences are harassment, blackmail, extortion and discrimination.” Naz Foundation v Government of NCT of Delhi [2009] 160 DLT 277 (Delhi High Court), [50].


“not limited to actual knowledge, or wilful acceptance,” but encompassed the “wilful blindness” of government officials.62

The impact of ill-treatment may be compounded by intersecting factors including race or ethnic origin, disability, age, class, caste, and HIV status. Some of the abuses surveyed above can occur regardless of whether there are laws criminalizing individuals on the basis of sexual orientation or gender identity. However, where states maintain such laws, it is important to scrutinize their potential to engender abuses against LGBTI persons.

Conclusion

While the precise impact of LGBTI criminalization will manifest differently in varied legal, political, economic, social, cultural, religious, family, and community environments,63 it is important to recognize the ways in which such criminal laws can induce fear, insecurity, and vulnerability in LGBTI individuals. There is a need for a more robust inquiry, both generally and in specific cases, that explores the link between LGBTI criminalization and torture and other cruel, inhuman, or degrading treatment. Such an approach should be grounded in a legal discourse that recognizes the ways in which such criminalization serves to foster and reinforce stigmatization of LGBTI individuals, and can increase their vulnerability to cruel, inhuman, and degrading treatment and sometimes torture.

These criminal laws are of course not the only barrier to ensuring the human rights of LGBTI persons are respected. Prejudice toward, discrimination against, and ill-treatment of LGBTI persons continue long after countries have taken steps to repeal criminal laws targeting these individuals, yet, challenging these laws often constitutes an important step towards the goal of ensuring full respect for the human rights of LGBTI persons.

What are human rights standards?

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Introduction

Human rights are not an unambiguous term. A variety of concepts related to rights are studied in the field of International Human Rights Law (IHRL). And the distinction between these concepts may be relevant to the debate about the universal validity of rights.

In answering the question posed, this essay will attempt, in the first place, to define and analyse, the difference between ‘human rights’ and ‘human rights standards’. Once such a distinction has been determined, the essay will deepen in the latter concept, by answering a second question: do international human rights standards have universal validity?

Distinguishing human rights from human rights standards

This distinction arises from the fact that almost every country, as different as they may be, can agree in a relatively short text like the Universal Declaration of Human Rights (UDHR), as a ‘lowest common denominator’. Furthermore, there is agreement on a wider set of norms, namely the International Bill of Rights and other treaty-based rights. Finally, there is also some accordance in a system of international bodies created for the implementation of those rights. This broad international consensus was reached in the midst of the Cold War, when universal assent was certainly difficult to obtain.

But it is also a matter of fact that ‘deep divisions among nations in their perception of human rights, as well as in objectives, (... ) cast grave doubt on the viability of the very notion of international implementation.’ Moreover, ‘antagonistic political approaches to human rights and the resulting lack of coherence in UN standard-setting’ prove that not every human rights standard proposed by the IHRL enjoys widespread acceptance, nor do they have the same binding force.

This indicates that there is a distinction to be made in IHRL norms. In this paper the terms ‘human rights’ and ‘human rights standards’ will be used as representing two different concepts.

The first set of norms, referred to as human rights, constitutes what Xanthaki calls the common values that the whole of humanity agrees on, which in her view are expressed in international decisions, including treaties, customary law, and

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1 von Bernstorff, p. 911.
2 Idem.
3 Moskovitz, in von Bernstorff, p. 914.
4 von Bernstorff, p. 914.
5 Shelton, in Alston and Goodman, p. 87.
general principles.6

Human rights standards, on the other hand, are the dictates of intergovernmental organizations (IGOs) and human rights bodies, through resolutions, recommendations, declarations, or adjudication decisions. Human rights standards, then, are the results of the efforts to implement human rights. The former are a concretization in time and place of the latter.

In Condé’s dictionary the term ‘Standard (of Conduct)’ is defined like this:

‘A standard is roughly synonymous with a norm. A standard is a precise normative legal measure that prescribes and is used to judge state conduct with respect to human rights. It is a level of conduct that a state is required to meet to fulfill its legal obligations with respect to human rights.’7

Human rights standards may also be considered a preparatory step in a process to develop ‘full’ human rights.8 If these two sets of norms were to be classified by their binding force, human rights would be law, and human rights standards soft law.9 Meron posits that a fundamental right must be firmly rooted in international law; mere claims or goals, important though they may be, would not qualify as such.10

Analysing the validity of human rights standards

If one were to ask if human rights tout court are universally valid, the first thing that should be acknowledged in response is that, from its very beginning, the human rights regime had universal aspirations.11 Secondly, it should be

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6Xanthaki, p. 45. She also includes “soft law” at the end of the enumeration, but this article disagrees with that last part of her position. The reasons are explained further in the essay.
7Condé, pp. 244-45.
8As Condé states in his definition of the term ‘Standard-Setting (Process)’: ‘It is the process of negotiating and adopting specific norms of conduct on specific subjects, e.g., torture, refugees, women’s rights, etc. Usually the standard-setting process starts with a proposal made by one or more states (and/or possibly NGOs) to an IGO, such as the UN, for adoption of a “Resolution” calling for the establishment of human rights standards in a given area. After the resolution is adopted it is followed by negotiation and adoption of a “Declaration” setting forth the human rights principles agreed upon in a non-binding international instrument (. . . ). Finally, this process is supposed to lead to the negotiation, adoption, and ratification of a binding international legal instrument, such as a convention or covenant, that sets forth the standards in positive legal norms’, p. 245.
9Soft law is understood here as ‘international non-binding norms’, as defined by Shelton, in Alston and Goodman, p. 86. The assessment made by the same author that ‘the line between law and soft law may appear blurred’ is also valid for this article, idem, p. 87.
10Meron, p. 11.
11Alston and Goodman, p. 145.
noted that human rights language does not differ in its applicability according to religion, colour, ethnicity, region, national origin, or cultural background; on the contrary, human rights rely on equal protection as a cardinal concept. With these characteristics and the worldwide consensus already described, the universal validity of human rights seems to be not only clear, but also foundational.

This validity has been contested through accusations of neo-colonialism or the imposition of western values on countries that did not participate in drafting the first instruments of the IHRL.

Yet the strongest challenge to the universality of human rights so far has been the tensions between cultural differences and the push toward uniformity posed by a single set of values. In 1993, the international community met at the Vienna Conference to decide what to do about these tensions, in the midst of a multicultural world. The outcome reflects very well what was at stake, and how it was solved:

“All human rights are universal, indivisible and interdependent and interrelated. The international community must treat human rights globally in a fair and equal manner, on the same footing, and with the same emphasis. While the significance of national and regional particularities and various historical, cultural and religious backgrounds must be borne in mind, it is the duty of States, regardless of their political, economic and cultural systems, to promote and protect all human rights and fundamental freedoms’.

It can be said that the quoted Paragraph 5 of the Vienna Declaration confirmed, in this way, the universal validity of human rights. As von Bernstorff points out, this paragraph states that human rights are universal, but conflicting cultural backgrounds should continue to be respected. He says that all states have to protect human rights, but in order to do so they do not need to change their political, economic, and cultural systems even if they conflict with human rights.

How to solve this apparent contradiction? Glendon says that it cannot be taken for granted that the IHRL mandates a single approved model of human rights for the entire world. And that neither is it true that the only alternative

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12 Idem.
13 This essay considers those claims to have been successfully refuted. The focus of this essay is the validity of ‘human rights standards’. For further discussion on the validity of ‘human rights’ see the referenced bibliography, especially the work of von Bernstorff.
14 Vienna Declaration, par. 5.
15 von Bernstorff, p. 918.
would be to accept that all rights are relative to the circumstances of time and place.\textsuperscript{16} So here is where the distinction between human rights and human rights standards proposed at the beginning of this work comes into play.

The thesis argued here is that while human rights do have universal validity, human rights standards do not necessarily. While human rights –being legally binding– are the law for every country and across cultures, the soft law of human rights standards has not yet gained universal validity, and it is not a certainty that it ever will.

Since the Vienna Declaration of 1993, it is clear that multiculturalism charges states with the burden of ‘bearing in mind’ national and regional particularities and backgrounds. Xanthaki puts it in this way: ‘[i]t cannot be denied that multiculturalism challenges the dominant culture and recognizes more allegiances than only that to the state.’\textsuperscript{17} But the UN is an institution playing in this field too, and it has its own culture.\textsuperscript{18} So it can be said that multiculturalism also imposes to the UN standard-setting bodies with this duty of respecting cultural differences. Just as states should protect sub-national groups, the UN bodies (or any other IGO) also have to respect the sub-groups that are part of the organization.

This means that when establishing standards (i.e. drafting soft law on thematic issues; evaluating periodic reports; making recommendations through the Universal Periodic Review mechanism, etc.) the respective human rights bodies, or the international community, should give more leeway to states in case there are cultural or local particularities at stake. Of course this will necessitate that both parties engage in a dialogue about this, and certainly states or cultures may need to adapt something too.\textsuperscript{19}

This could be a way of solving the tension posed to multiculturalism by the existence of universal standards: when a local or cultural practice –reached by those standards– does not violate the commonly agreed values of humanity (namely, human rights), ‘then the opinion of the group and the consent of the person affected must be the determining criteria’.\textsuperscript{20}

It goes without saying that if a case regards ‘the core of human rights, the essence of each human right (…), no cultural practices or beliefs can violate these values’.\textsuperscript{21} But in the case of what here is called standards, IGOs should not ‘standardise’ with one-size-fits-all solutions. A certain margin of appreciation

\textsuperscript{16}Glendon, in Alston and Goodman, p. 148.
\textsuperscript{17}Xanthaki, p. 32.
\textsuperscript{18}Alston and Goodman, p. 82.
\textsuperscript{19}Xanthaki, p. 37.
\textsuperscript{20}Xanthaki, p. 47.
\textsuperscript{21}Xanthaki, p. 45.
What are human rights standards? 21

should be afforded to minority groups, which should be seen as equal with the majority group, rather than mere negotiators or imitators.\(^{22}\)

Furthermore, this should not necessarily be seen as a mere ‘toleration’ of the practices that clash with the more accepted standards. On the contrary, it could be seen as a good practice, considering that the fertile principles of human rights law can be brought to life in a legitimate variety of ways.\(^{23}\)

One might object that this interpretation could be used by states as an excuse to justify violations of human rights. This is certainly a possibility and standard-setting bodies should be mindful of it. But rather than accepting excuses or turning a blind eye to violations, IGOs should allow for leeway when legitimate cultural or local particularities are concerned.

Certainly, breaches of international law are not to be tolerated, for such actions constitute a violation of human rights tout court. But it is not to gross or serious violations that this essay is referring when it says that international bodies should not impose the same standards on every country or every culture.

An example could be useful to better explain this thesis. In the case of indigenous peoples’ right to free, prior and informed consent it is clear that it has been recognised by the law, and cannot be denied by any country. It is, therefore, a human right. But the manner in which the consultation must be carried out may vary greatly, depending on many circumstances. This results in a number of differing standards. Some international human rights bodies have said that the consultation should always be carried out directly by the state, and others have accepted that states delegate it to federative entities or even to private parties.\(^{24}\) The state’s decision as to how it might be done, based on cultural or local convenience, cannot be considered a violation of human rights.\(^{25}\)

Conclusion

There exists a distinction between ‘human rights’ and ‘human rights standards’ both in practice and in law. This means that international practice demonstrates the existence of these two sets of norms and that each has a different legal force. Human rights are law and human rights standards are soft law. As a consequence

\(^{22}\)Xanthaki, p. 37.
\(^{23}\)Glendon, in Alston and Goodman, p. 149.
\(^{24}\)Boulin et al, pp. 10-11.
\(^{25}\)Another example in which this essay is useful is the one of the controversy around headscarves. Xanthaki (pp. 46-47) says that the burqa should not be acceptable anywhere in the world on the grounds that it violates human rights, but the headscarf may be acceptable in some countries where it is traditional (even if it violates human rights standards as agreed in some other parts of the world).
of that, and as a way of solving the challenges presented by multiculturalism, we should consider the former universally valid and the latter non-universal.

References

Language policies for non-native language speaking migrant children in Scotland and Slovenia: whose interests do policy changes serve?

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Working Paper

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Introduction

Across the world ‘too many children are sidelined by education that is delivered in a language they neither speak nor understand’ (UNESCO Institute for Statistics (UIS) and UNICEF, 2015, p.14). As a result, a number of children require help to ‘master the language of instruction’ (Christensen and Stanat, 2007, p.1). Such a barrier to education means that full integration into a host society for non-native language speakers is problematic without acquisition of the host language.

However, different models on how best to instruct non-native language speakers are reflected in strongly contested debate on whether or not best practice should entail withholding newly arrived non-native language speakers from mainstream education, or use of the new arrivals first language should be promoted in the classroom (see Figure 1 for a representation of the divergence in approaches based on the description by Christensen and Stanat, 2007). As Figure 1 shows, immersion is one such model, but varies in terms of whether or not teaching is conducted solely in the language of instruction or includes additional support to aid proficiency, or learners are instructed initially outside mainstream. The immersion model contrasts with programmes which alternatively instruct initially in the learners native language (mother tongue), differentiated by a measured transition to the language of instruction of mainstream classes (transitional bilingual model) or teaching which aims to develop both the native and the new language (maintenance bilingual model) (Christensen and Stanat, 2007, p.4).

This paper presents preliminary comparative analysis of language policies for non-native language speaking children in Scotland and Slovenia which present evidence of contrasting approaches. It explores why changes to policy may have been made and in who’s best interest they served – migrant children, Government or local education authorities. The central focus is on secondary school education (as migrant children who arrive at a later age or stage in their education are potentially more vulnerable, having less time to acquire the host language before transition to the labour market), but includes consideration of policy and legislation relevant to nursery, primary, adult or higher education where there is an overlap. The paper lays the foundation for further more detailed process tracing.

In the first section of this paper, a presentation of the two cases (Slovenia and Scotland) provide contextual background which includes an outline of their population demographics in relation to immigration, public attitudes to immigration, an overview of their national education systems and their provision for non-native language speakers, first the case of Slovenia, followed by the
case of Scotland (with a focus on Glasgow), before subsequent discussion of some prominent policy changes evident in both cases. This preliminary analysis suggests there is evidence of discrepancy between policy and practice in the case of Slovenia, and that financial drivers may have been behind policy change rather than the interests of non-native speaking migrant children in the case of Scotland.

The case of Slovenia

Population and immigration

Due to migration flows, Slovenia is increasingly facing a growing diversity of populations with different ethno-linguistic origins (Bešter and Medvešek, 2015, p.113).

The official population of Slovenia at the beginning of 2015 was 2,062,874 which includes 101,532 foreign citizens who comprise 4.9% of Slovenia’s population (Statistical Office RS, n.d.b, non-paginated). The population data also highlights that in effect, the share of foreign born citizens has increased whereas the number of non-foreign citizens has fallen (Statistical Office RS, n.d.b, non-paginated). Breaking down further the foreign born data, out of those classified as foreign citizens in 2014, 76.4% were from territories in former Yugoslavia and
16.9% were EU citizens (Statistical Office RS, n.d.c, non-paginated). This infers therefore that 6.7% of the foreign born population originate from outwith former Yugoslav territories and European Union member states.

The steady upwards trend of foreign citizens in Slovenia can be seen clearly in Figure 2, which shows that although more male foreign citizens than female are recorded in tandem with a noticeable increase in males during 2009-2010, nonetheless the numbers of both male and female foreign citizens in Slovenia exhibit a similar trajectory (Statistical Office RS, n.d.b, non-paginated). This is contrary to both the overall population of Slovenia which exhibits more females than males and the demographic split of non-foreign citizens as detailed in Table 1 (Statistical Office RS, n.d.b, non-paginated). Slovenia is not unusual in having more male than female immigrants, which averages 52% male compared to 48% female across the EU-27 states, but the 2012 figure for male immigrants at 61% places Slovenia with the highest proportion relative to the EU-27 (Eurostat, 2014, non-paginated).

Slovenia also exhibits an ageing population, and ranked by the United
Nations Department of Economic and Social Affairs as the eighth oldest society in the world (United Nations, 2013, p.27). There are clear economic consequences for Slovenia which emanate from an ageing population. Slovenia’s pension bill increased by €34.2 million from 2013-2014 but recent reports estimate that pension related expenditure will increase from the 2013 figure of 24.7% to 31.5% by 2060 (The Slovenia Times, 2015, non-paginated). Although, other measures to address the situation have been suggested by Slovenian officials such as ‘reducing the years of study and swifter entry into the labour market’ (The Slovenia Times, 2015, non-paginated), Slovenia’s changing demographics (stemming from a low birth rate and increased life expectancy), mean that since ‘1993 the population of Slovenia has been increasing only due to immigration’ (Slovenia, 2013, non-paginated). Therefore, migration will likely be a partial solution to Slovenia’s demographic deficit.

Although presently Slovenia is regarded as having a small immigrant population compared to other OECD countries ‘Migration and integration is rarely a topic of public or policy debate’ (MIPEX, 2014a, non-paginated), it is however described by the OECD as an emerging destination for migrants (OECD, 2014, p.51). In terms of asylum applications, the number of asylum seekers arriving to Slovenia on average between 2009-2012 was 277, while in 2013 the origin

<table>
<thead>
<tr>
<th>Population</th>
<th>1. 1. 2014</th>
<th>1. 1. 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>1,020,874</td>
<td>1,022,229</td>
</tr>
<tr>
<td>Women</td>
<td>1,040,211</td>
<td>1,040,645</td>
</tr>
<tr>
<td>Citizens of the Republic of Slovenia</td>
<td>1,964,477</td>
<td>1,961,342</td>
</tr>
<tr>
<td>Men</td>
<td>955,927</td>
<td>954,877</td>
</tr>
<tr>
<td>Women</td>
<td>1,008,550</td>
<td>1,006,465</td>
</tr>
<tr>
<td>Foreign citizens</td>
<td>96,608</td>
<td>101,532</td>
</tr>
<tr>
<td>Men</td>
<td>64,947</td>
<td>67,352</td>
</tr>
<tr>
<td>Women</td>
<td>31,661</td>
<td>34,180</td>
</tr>
</tbody>
</table>

Table 1: Population by groups and sex, Slovenia
of most asylum seekers were Syria, Serbia (and Kosovo) and Pakistan, which contrasts with the UK average of 26,799 for the same period with Pakistan, Iran and Sri Lanka being the main countries of origin (OECD, 2014, p.27).

However, there is one crucial difference between immigrants (apart from lower levels of tertiary education) who arrive in Slovenia as opposed to the UK, which is their exposure to the host language (OECD, 2014, p.51). It is likely that the average migrant of school age arriving to Slovenia will not have proficiency in the host language: whereas prior exposure to English is more probable for migrants to the UK. This is an important factor, as although proportionally migrant children present as lower in Slovenia compared to Scotland, the issue of language is therefore even more salient for those children. This may in turn explain to some degree why the employment rates of foreign born compared to natives, is lower in Slovenia than the UK (OECD, 2014, p.57), and a higher risk in Slovenia of in-work poverty for lower educated migrants than found in the UK (OECD, 2014, p.60).

**Ljubljana**

In administrative terms, Ljubljana is one of Slovenia’s 211 municipalities, and while some areas of Slovenia are displaying a population decrease, Ljubljana increased by 0.5% in 2014 which brought the capitals population to over 287,000 (Statistical Office RS, n.d.c, non-paginated). The city has a total of 55 elementary schools and 32 upper secondary schools (City of Ljubljana, 2014, p.80-81).

**Social attitudes**

Surveys conducted on public attitudes in Slovenia highlight a resistance to non-Slovene cultural practices as demonstrated by Toplak et al. (2010), and evidence of Islamophobia can be seen clearly over time through the strength of resistance to the construction of a mosque in Ljubljana, which was first proposed in 1969 (Bajt, 2009, p.226-227; Dragoš, 2005, p.299). Although one interesting social aspect to attitudes on the issue of the mosque is the relationship to education as ‘The majority of those in favour of the mosque have post-secondary or higher education, among which the share of the undecided is the smallest’ (Dragoš, 2005, p.312). This is consistent with the findings of Hainmueller and Hiscox (2007) who found across Europe those with higher levels of education were more positive about immigration.
Education system in Slovenia

The education system in the Republic of Slovenia is principally state funded although ‘a small share of the finance is also contributed from municipal budgets’ (VLADA, 2013, non-paginated). Therefore, in terms of upper secondary education, Slovenia maintains a centralised system with decisions on finance and education programmes made at the national level, although ‘schools and teachers are autonomous in the specific application of syllabus content’ (Logaj et al., 2014, p.15). When assessing the ratio between public expenditure and observed GDP for Slovenia, in 2012 the share for education amounted to 5.7% (Statistical Office RS, n.d.a, non-paginated).

Since the 2008-2009 academic year, the education system for children aged six to fifteen years has comprised a compulsory nine year programme. However, the structure of the Slovenian education system also includes a subsequent upper secondary element which comprises of schools known as gimnazije, which include general schools and technical schools which prepare students for further education with some specialising in specific subjects such as economics or art, alongside vocational schools which have evolved to prepare students for entry into the labour market (UCAS, 2014, p.60).

In Slovenia, the literacy rate of the overall population is 99.7% (Slovenia, 2013, non-paginated) and students score slightly above the average international PISA scores for reading literacy, maths and science, but is a higher than average gender gap in favour of girls. There is also, however, an above average socio-economic gap evident in the data which implies a structural failure to ‘provide equal access to high-quality education’ (OECD, n.d., non-paginated).

Support for non-native speakers

Post independence, the Elementary School Act (1996) cemented the legal requirement to provide lessons in the native language for elementary school children who are non-native Slovene speakers, regardless of whether or not they hold Slovenian citizenship (Bešter and Medvešek, 2015, p.122) which underlined the Republic of Slovenia’s commitment to ‘compliance with international agreements’ (Čopič and Srakar, 2014, p.43).

Article 2 (Goals of Education) of the Organisation and Financing of Education Act (2014) states one of the Republic of Slovenia’s educational goals is to provide ‘the optimal development of the individual, irrespective of gender, social background or cultural identity, religion, racial, ethnic or national origin . . . ’ and Article 3 (Language of Instruction) permits Italian or Hungarian as the language
of instruction in ‘ethnically mixed areas’ (MIZS, 2014, Article 2-3).

Within the Strategy of the Inclusion of Immigrant Children, Pupils and Students in the Education System in the Republic of Slovenia (2007) can also be found support for ‘Teaching immigrant children their mother tongue’ (Bešter and Medvešek, 2015, p.122). At the core of this strategy is the concept of interculturalism, intended to facilitate an acceptance of different cultures alongside ‘adoption of Slovenian as the second language for inclusion in the educational system’ (Čopič and Srakar, 2014, p.43). Currently, in terms of provision for non-native language speakers, Slovenia practises an immersion model (Bešter and Medvešek, 2015, p.123) as outlined in the introduction.

The case of Scotland

Population

Scotland ‘faces an increasingly ageing population which brings about pressing policy implications’ (Scottish Parliament, 2013, p.2). Figure 3 (NRS, 2014) shows the projection of Scotland’s future population structure predicting a significant increase in those aged seventy five or over by 2037. Although, it should be noted that this is one of a variety of potential outcomes that different projection models forecast, nonetheless, the graph provides a dramatic representation of Scotland’s ageing population. Also, identified by the Scottish Parliaments Finance Committee report of 2013 on Scotland’s changing demographics and ageing population, was the consequential challenge to ‘public finances’ and the ‘need to increase sustainable economic growth’ in order to bear these financial costs (Scottish Parliament, 2013, p.2).

Immigration

Within the United Kingdom framework, Scotland retains jurisdiction over education, however, immigration policy continues to remain a reserved matter for the UK Government. Nevertheless, Scottish statistical data in relation to immigration is available separate from UK immigration statistics. Scotland is a country of net-migration – more people arrive to Scotland to settle than leave. This is in stark contrast to the historic pattern which had marked Scotland as a country of net out-migration, a trend which only began to change during the 1990s and in subsequent decades the trend has continued (NRS, 2015, p.11). Scotland’s upwards net migration trend can be seen clearly in Figure 4 (NRS, 2015).

However, as Figure 5 shows (NRS, 2015) migration is a fluid phenomenon
in terms of both inward and outward migration flows and fluctuates over time. Governments are often held to account over net-migration figures which also fluctuate perhaps unsurprisingly as they are calculated from the data shown in Figure 5. Although somewhat erratic, Figure 5 does display an upward trend in terms of in-migration to Scotland from overseas.

**Immigration policy**

The stated objectives of British immigration policy (aside from the aspect of control), are *economic* (which is centred on attracting skilled migrants), *family* (which is related to family reunification) and *humanitarian* in relation to the provision of sanctuary (UK Government, 2008, p.3-4). Yet, with Scotland having undergone a referendum in 2014 on the question of independence, nationalism still remains salient, with the Scottish National Party (SNP) having gained an unprecedented 56 MPs in the 2015 UK General Election, therefore tensions between Scotland and Westminster are likely to remain on matters related to immigration, as the Scottish Government has consistently asserted a desire for a proactive role in attracting migrants to Scotland if given the ‘relevant policy
levers’ (Packwood et al., 2014, p.1). Moreover, contemporary Scotland needs an educated and skilled migrant workforce within an increasingly global, non-manufacturing based economy no less so than any other part of the United Kingdom (Scottish Government, 2004, p.1).

In Scotland, the central driver to increased diversity (out with European Union migration) stems from the Asylum Dispersal Act (1999). The Asylum Seeker dispersal programme followed the UK Governments decision and formed the legal basis for the dispersal of asylum seekers to Glasgow through the Immigration and Asylum Act (1999) and the subsequent Nationality, Immigration and Asylum Act (2002) (Scottish Government, 2007, non-paginated).

However, migration matters in Scotland are not solely the domain of the Scottish Government, Local Authorities in Scotland play a front line role in managing service provision, yet, across Scotland inconsistent responses are found at the local Government level – found to be either ‘proactive, reactive or less active’ in terms of meeting the demands of immigration (Packwood et al., 2014,

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Figure 4: Net migration, Scotland, 1954-2014

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\(^1\)The attitude of the Scottish Government to immigration is viewed as a positive one, with an openness to increase the number of skilled migrants to Scotland (Packwood et al., 2014, p.1).
Local policy approaches are underpinned by principally the amount of additional available resources, the level and size of the local migrant population and migrant advocacy (Packwood et al., 2014, p.2).

Therefore, notwithstanding the disparity between UK and Scottish Government positions on immigration, the different layers of government found within the Scottish system also poses challenges. As a study by Packwood et al. (2014) highlights ‘Enhancing communication within tiers of government could ensure that migration policy is more responsive, reflective and better informed’ (Packwood et al., 2014, p.2). This gives rise to the question therefore, is this inconsistency likely to permeate into education policies?

Local Authority policy and practice in relation to immigration in Scotland is of central importance (Packwood et al., 2014, p.2). For example, adequate service provision of education for children of migrant workers has relevance to other sectors. With competition for high skilled migrants around the world (Föbker et al., 2014, p.542) Scotland needs migrants to shore up its demographic deficit due to its aging population and with the significant economic role migrants play both in the labour market and the wider economy, education is key to attracting and retaining young migrant workers: a study by Sime et al. (2010) of Eastern
European migrants to Scotland identified education as a central factor in the decision to migrate as a family (Sime et al., 2010, p.15).

**Non-native English speakers**

The number of people in Scotland recorded in the census of 2011 not having a fluent command of English amounted to 6.3% of the population (Statista, 2015c). Figure 6 shows a breakdown of the 6.3% by language skills who declared themselves as having issues with English in terms of either reading, writing or speaking (Statista, 2015c).

The data represented in Figure 7, highlights that in Scotland, out of the percentage of Scotland’s population asked in 2011 about their level of spoken English proficiency, only 90% declared themselves as a person who ‘Speaks English very well’ (Statista, 2015e).

To put such data into a comparative context, the 2011 census data for England and Wales reveals 92% of respondents indicated that English was their main language which equates to 49.8 million residents (aged three and over) with 8% (4.2 million people) indicating a language other than English as their main
language, although out of this group 3.3 million confirmed they were able to speak English either well or very well (ONS, 2013, p.1). The 2011 census was the first time a question on language proficiency had been asked, which highlights the growing importance and shift towards recognising the significance of language.

Scotland’s overall place within the UK in relation to percentage of population who did not hold English as their first language in 2011, is highlighted in Figure 8 (Statista, 2015a) which shows little disparity between Scotland and England (at 92.6% and 92% respectively) with 8% in England and 7.4% in Scotland who did not have English as their first language (Statista, 2015f). In percentage terms, non-English speakers in Scotland do not appear hugely significant at 7.4%, nonetheless this equates to 391,830 people who may face consequences for employment, social interaction and problems with their individual integration into Scottish society.
Figure 8: Proportion of the population of the United Kingdom whose main language was English in 2011, by country.

**Education**

Divided into 32 different local authority administrative areas, local sub-national political units in effect perform the role of a local educational authority, and both administer and own the state schools within their boundaries, although ultimate political responsibility for educational matters is borne by the Scottish Government (GTC, n.d., non-paginated). Scotland retains jurisdiction over ‘its own distinctive education and schooling system’ (O’Brien, 2009, p.42), and Scotland’s pedagogical tradition unlike that found in the rest of the UK characterised by an in-depth approach within a smaller range of subjects, Scottish education has contrastingly ‘emphasised breadth across a range of subjects’ (GTC, n.d., non-paginated).

There are, however, potential gaps between education policy and practice within Scotland’s distinct structure, highlighted by Draper and Forrester’s succinct summary of educational governance:

> The Scottish education system, which was always independent of the other United Kingdom (UK) systems, is overseen by the Scottish Executive and the Scottish Parliament. Scotland has a relatively small independent sector and most schools are run by local authorities.
While management of schools has been substantially devolved to schools, local authorities form a substantial tier of educational policy making and control between schools and the Scottish Executive, which is also a significant educational policy maker (Draper and Forrester, 2009, p.75).

Language teaching

There is clear evidence of growing recognition of the importance of foreign language learning in Scotland’s education system. Although Scotland has already made provision for primary school children to learn foreign languages in their final two years through the policy *Modern Languages in the Primary School*, by adopting the underlying principles on language instruction by the European Union, Scotland by 2020 will introduce the teaching of a foreign language to P1 children and a second foreign language in P5, both of which will be offered continuingly up until completion of S3 in secondary school (British Council, 2014, non-paginated). This *1 + 2 model* rests principally on the recommendations of *Language Learning in Scotland: A 1+2 Approach*, a report produced by the Scottish Government Languages Working Group: although, by the reports own admission ‘Scottish Ministers have set an ambitious and challenging agenda for future language learning and teaching in Scotland’s schools’ (Scottish Government, 2012, p.3).

Support for non-native English speakers

While the UK Government response to the pressures of immigration in the education sector has included financial support for schools with increased numbers of migrant pupils in England and Wales (UK Government, 2008, p.5), the Scottish Government’s response includes providing annual funding to each individual Local Authority to support their EAL learners, and in turn, local authorities hold the decision over how to allocate the funds. For most local authorities however, this will involve specialised EAL support but varies in detail across Scotland in terms of approach and need, but more often than not it will go towards meeting the costs of employing ‘specialist EAL teachers and bilingual support assistants, as well as for teaching resources and training’ (British Council, 2014, non-paginated).

Figure 9 (Statista, 2015g) shows the number of pupils (aged 4-18 years old) in Scotland identified in 2013 as competent or developing competence in English
accounting for 59.4% of EAL pupils, while 40.5% were either at the stage of early acquisition or entirely new to English. Figure 10 highlights the range and numbers of different home languages spoken by Scotland’s school pupils nationally for the same year ranked by numbers of speakers (Statista, 2015d).

**Glasgow**

In Glasgow, educational support for children who do not have any or a low competency level of English upon arrival is the responsibility of Glasgow City Council. The city of Glasgow hosts the largest proportion of Scotland’s 37,814 pupils who do not use English as their home language, recorded in the 2013 pupil census as comprising a total of 143 different languages, of which Panjabi, Urdu, Polish and Arabic were the most prevalent (NALDIC, n.d., non-paginated). Data on the precise numbers of English as an Additional Language (EAL) learners however are somewhat incomplete for Glasgow prior to 2006, although, approximately the number of children and young people with EAL across Glasgow’s education institutions rose from 7,000 to 11,344 between 2000 and 2010 (COSLA, 2011, p.1).
The city of Glasgow displays not only an upward trend in the overall numbers of EAL learners, but also an increase in the diversity of spoken languages, which reflects the varied nationalities of migrant workers, refugees and asylum seekers in the city. Traditionally, services have been oriented towards Asian and Chinese learners who were previously the main migrant groups arriving to Glasgow (COSLA, 2011, p.1) but now a diverse range of languages can be heard ranging from Albanian to Zulu.

Discussion

Policy change in Slovenia

Over recent years, changes have been made in the education system of Slovenia which the Slovenian Government asserts as intended ‘to ensure that as many people as possible realise their right to education, better than before, thus achieving a higher educational level’ (VLADA, 2013, non-paginated). This
suggests implicitly that there was previously an issue in the system of poor educational attainment and access for some children. In Slovenia, lower academic outcomes and low level employment opportunities are common place for in particular Muslim children (Bajt, 2009, p.225), and according to Toplak et al. (2010), in Slovenia ‘Pupils who belong to a minority do not have equal opportunities in school’ (Toplak et al., 2010, p8). Therefore, beyond attempting to address issues of access and quality of education, changes in education related policies have sought to address issues relating to cultural differences and interculturalism with the inclusion of ‘active citizenship’ and ‘intercultural dialogue’ within a range of subjects (Čopič and Srakar, 2014, p.43).

Many of the changes also impact directly on the teaching of non-native language speakers. The Elementary School Act (1996) paved the way for lessons in the native language for school children who are non-native language speakers irrespective of whether or not they held citizenship status (Bešter and Medvešek, 2015, p.122). While, introduced the same year as the Elementary School Act, the Organisation and Financing of Education Act has also gone through a number of amendments (MIZS, 2014, p.2-3).

The Organisation and Financing of Education Act (amendment of 2008), and the 2009 Guidelines for the Education of Immigrant Children in Nurseries and Schools, recommended ‘measures for encouraging the learning of the mother tongue’ (Bešter and Medvešek, 2015, p.122). This was followed by the introduction of the White Paper on Education in the Republic of Slovenia in 2011 which made provision for non-curriculum languages to be included as part of language lessons in schools, with the introduction of elective subjects in the native language of the migrant child (Bešter and Medvešek, 2015, p.122). The 2012 Guidelines for the Inclusion of Immigrant Children in Nurseries and Schools, further advocated incorporating learning related to migrant languages (Bešter and Medvešek, 2015, p.122) and within the Resolution on the National Program for Language Policy 2014–2018 (2013) there can also be found a firm recognition of the need to promote the use of migrant and minority languages.

On the surface therefore, such policy implementation appears positive towards an inclusive approach to educating children who do not have Slovene as their mother tongue. However, the Organisation and Financing of Education Act (first introduced in 1996) having gone through a number of amendments (MIZS, 2014, p.2-3), such as Article 81 (amended in 2008) which legislates for state funding of non-Slovene language teaching for foreign citizens, highlights some disparity between the amendment and the Elementary School Act (1996) which had earlier laid out provision regardless of citizenship status (inclusive of non-Slovene speaking citizens and those regarded as foreign citizens) (Bešter and
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Medvešek, 2015, p.122).

Furthermore, despite these legislative changes, Bešter and Medvešek claim that ‘Organized teaching of immigrant languages in Slovene schools is the exception rather than the rule and does not have an established and systemically determined form’ (Bešter and Medvešek, 2015, p.123). Similarly, the Slovenian Migration Institute identified in the Slovenian school system, educating migrant children lacks ‘systematic governmental support’ (Toplak et al., 2010, p.7). In light of such analysis, Slovenia appears to fall short of the structured approach to educating non-native language speakers established by Christensen and Stanat (2007) as integral to pupil success.

In addition, despite such legislative moves, and with the increased diversity of migrants arriving in Slovenia, one particular aspect of concern highlighted by the Slovenian Migration Institute were incidences of children with language needs being classified as children with learning difficulties (Toplak, et al., 2010, p.8). Furthermore, Toplak et al. (2010) has identified inherent shortcomings in Slovenian education policy in relation to minority groups, finding a sizable need for increased levels of multilingual support (Toplak et al., 2010, p.9). Toplak et al. (2010) also found a need for improved collaboration between schools and migrant communities, and a need for a move towards inclusion rather than one of exclusion in the education system, a more wider implementation of intercultural competences, changes to teacher training, and a requirement for necessary changes to the curriculum towards an integrated intercultural approach to address issues of inequality and prejudice (Toplak et al., 2010, p.9).

Moreover, in the Strategy of the Inclusion of Immigrant Children, Pupils and Students in the Education System in the Republic of Slovenia (2007) support is given for ‘Teaching immigrant children their mother tongue’ (Bešter and Medvešek, 2015, p.122). At the core of this strategy is the concept of interculturalism, intended to facilitate an acceptance of different cultures and overcome prejudice and provision for ‘adoption of Slovenian as the second language for inclusion in the educational system’ (Čopič and Srakar, 2014, p.43).

Yet, somewhat contradictory to this strategy, is the method Slovenia utilises for accommodating non-native language speakers – an immersion model – as opposed to an alternative bilingual model which would develop both the native and the host language and would match the strategy.

There is also a clear contradiction in Slovenia’s use of an immersion model (rather than a bilingual model) to educate non-native language speakers who have newly arrived when considering that the rights of other ethnic minorities in Slovenia, including their right to bilingual education, is in effect a legal right: ‘The official language in Slovenia is Slovene. In those municipalities where
Italian or Hungarian national communities reside, Italian and Hungarian are also official languages (Čopič and Srakar, 2014, p.36). Similarly, Slovenia’s Roma community are also accorded special status (Čopič and Srakar, 2014, p.37). This is a somewhat inconsistent approach – if the Slovenian system was an overall rights based policy approach for all non-native Slovene speakers as per protection of the officially recognised minorities, then again an immersion model would not be an appropriate choice, rather, a maintenance bilingual model would be more compatible with such policy doctrine and in line with how other protected minorities are educated. This raises the issue of identity politics in Slovenia potentially playing a significant role.

Wisthaler (2013) identifies ‘the educational system as one of the pillars of language and identity politics used for minority protection’ (Wisthaler, 2013, p.360). The issues related to ‘language rights of citizens and foreigners on the territory of the Republic of Slovenia’ fall within the remit of Slovenia’s Ministry of Culture (Čopič and Srakar, 2014, p.37). From a national perspective, as the national language of Slovenia is ‘spoken by only 2 million people ... it needs to be preserved and developed’ (Čopič and Srakar, 2014, p.37). But such desire to protect the Slovene language needs to be balanced out with the pressure on the one hand from protecting those officially recognised non autochthonous languages, and from the ‘current status of Slovene as the language of communication in scientific research and academic instruction at Slovenian universities reflects the global problem of the relationship between national languages and English in science and academia’ (Čopič and Srakar, 2014, p.37). In this respect, in the education system ‘protection of Slovene is considered as a barrier for development (Čopič and Srakar, 2014, p.37).

The inconsistent approach to educating non-native language speakers is Slovenia is puzzling. For example, Bešter and Medvešek (2015) suggest that ‘Slovene policy is based on the assumption that a well-developed linguistic proficiency in the first language is one of the fundamental conditions for the development of language proficiency in Slovene’ (Bešter and Medvešek, 2015, p.123) but draw attention to the reality that ‘no specific measures to provide immigrants with an opportunity to develop fluency in their mother tongue have yet been drawn up’ (Bešter and Medvešek, 2015, p.123). Such contradiction naturally leads Bešter and Medvešek to reflect ‘that at the political and legal level, Slovenia supports the teaching and learning of the mother tongue of those children whose mother tongue is not Slovene. But what is the situation in practice?’ (Bešter and Medvešek, 2015, p.123). The Republic of Slovenia’s national policy reflects commitment to ‘compliance with international agreements’ (Čopič and Srakar, 2014, p.43), yet, if legislation is not being implemented as per policy discourse,
then are such legislative measures merely lip service to supranational directives?

On paper, Slovenia’s policy appears to be child centred, capable of accommodating for example an adolescent from Syria without any prior knowledge of the Slovene language, allowing them to pick up their education in their mother tongue within the Slovenian education system. The preliminary assessment of Slovenia’s education policy discussed here, suggests that in practice this would unlikely be the outcome for such a child.

Restructuring of the EAL Service in Glasgow

Significant policy initiatives aimed at pupils who arrive to Scotland at a later stage of their secondary school education and consequently unlikely to attain a Standard Grade English qualification, included the introduction of English for Speakers of Other Languages (ESOL) qualifications ‘due to increased levels of migration’ (Glasgow City Council, 2010, p.3), while at the local authority level the EAL Service in Glasgow underwent a process of restructuring during 2008 in an attempt to better meet the needs of increasing numbers of children within the city with English as an additional language, intended to increase overall access to the service (Glasgow City Council, 2008a, p.2-3).

With 30% of EAL learners (approximately 2,700 children) deemed to be without EAL support in their respective institutions (COSLA, 2011, p.1), during 2007 Glasgow City Council sought consultation from a number of key stakeholders from within the teaching profession, parents groups and service providers, in addition to seeking feedback from Children (Glasgow City Council, 2008b, p.1).

Following the consultation process, in 2008 Glasgow City Council’s EAL Service was restructured. The changes were also linked to earlier legislation introduced by the Scottish Government under the Additional Support for Learning Act (2004). In addition to citing the proposed changes as measures to meet these legislative requirements, Glasgow City Council posited the changes as founded on the need to improve access to the service to ‘better meet the needs of all children with EAL’ but also a reflection of the demographic change within the city, to make the service more ‘responsive’ to education related institutions and associated ‘challenges’ in ensuring EAL services could be accessed within educational establishments (COSLA, 2011, p.1).

The restructuring plans also claimed that the proposed changes ‘would lead to improvements in attainment and achievement’ for EAL pupils (COSLA, 2011, p.1). Moreover, emphasis was placed on capacity building to ensure both ‘specialist and non specialist school staff’ would ‘have the skills they need
to support children and young people with English as an additional language’ (COSLA, 2011, p.1; Glasgow City Council, 2008a, p.8). Therefore, on this basis such changes appear to be child centred, and subsequently the number of educational institutions with EAL staff provision across the city increased from 67 at the beginning of the 2006-07 school session to 130 by the end of session 2009-10 (COSLA, 2011, p.3). With an annual expenditure of £5.1 million in 2008, the EAL service employed 140 staff on a full time basis (COSLA, 2011, p.1).

However, in August 2010 additional reorganisation followed which resulted in a reduction of full time staff (from 140 to 137) justified by Glasgow City Council as a necessary measure in order to maintain service levels: the changes led to a focus on provision of English for Speakers of Other Languages (ESOL) qualifications (COSLA, 2011, p.1) with later recognition of Glasgow ‘as a centre for excellence for ESOL’ (COSLA, 2011, p.3).

Glasgow City Council’s Education Services vindicate their restructuring of the EAL Service based on aggregate secondary school attainment data, which is claimed to show a reduction in ‘the gap in attainment levels between the Glasgow average and the average for schools with EAL staff’ (COSLA, 2011, p.3). Aggregate data for the city’s secondary schools for reading, writing and mathematics provided by Education Services in their submission for a COSLA Excellence Award\(^2\) in 2011 (See COSLA, 2011) Glasgow schools during 2006-2010 display a general upwards trend in academic achievement: looking within the data and separating out secondary schools with EAL staff, the combined average for such schools are below the city average but do also show an increase. The question therefore arises, is the increase attributable to EAL provision or simply symptomatic of the general upward trend found across the city – in other words, is it attributable to other factors which may have driven up the city average within mainstream (such as the introduction of the Curriculum for Excellence) or as a result of the EAL Service being restructured?

Further analysis of the data for the start of session 2006 until the end of session in 2010, a period which straddles the restructuring process, the number of EAL pupils (in all establishments) with access to EAL support increased from 70% to 87% which equates to an increase from 6,754 to 9,614 pupils (COSLA, 2011, p.3). But scrutiny of this data shows that access to support increased over the period from 70% in 2006-2007 to 85% in 2007-2008, then 85.5% in 2008-\(^2\)The Convention of Scottish Local Authorities (COSLA) represent and lobby on behalf of their members who comprise most of Scotland’s local councils. The COSLA Excellence Awards are promoted as celebrating and rewarding ‘the most innovative and passionate developments, and on recognising projects that can demonstrate excellent service delivery to communities’ (COSLA, 2011).
2009 before reaching 87% of EAL pupils in 2009-2010: therefore the largest increase occurred before the restructuring of the service.

Moreover, in 2014 reports emerged that Glasgow City Council intended ‘to cut 15 English as an Additional Language (EAL) posts’ (Denholm, 2014, non-paginated). Considering financial constraints and the questionable effectiveness of the restructuring for EAL learners, questions therefore can be legitimately raised over whether EAL restructuring was undertaken as part of an overall drive to cut costs and symptomatic of wider budget cuts rather than a change in policy in the interests of EAL learners.

Evidence of the pressures of financial accountability can be found in a statement by Larry Flanagan from the Educational Institute of Scotland (EIS), given during the Scottish Parliament’s Education and Culture Committee meeting on Draft Budget Scrutiny 2015-16:

A good example of ring fencing is additional money that used to come from the Scottish Government to fund English as an additional language. That money was specifically for the national priority on supporting EAL. It meant that in Glasgow, for example, although Glasgow City Council funded additional EAL services to the tune of £6 million, it had core funding from the Scottish Government. When staffing complements were being worked out in schools, that Scottish Government element was untouchable because it was ring fenced for that service. With the removal of that ring fencing, that additional funding is now part of the local authority budget, a consequence of which has been a cut in the EAL staff in Glasgow City Council (Scottish Parliament, 2014, p.44-45)

Conclusion

This preliminary investigation finds evidence of conflicting policy in Slovenia and discrepancy between policy and practice: in particular, between the Elementary School Act (1996) which laid out provision for state funding of non-Slovene language teaching regardless of citizenship status (inclusive of both non-Slovene speaking citizens and foreign citizens) and article 81 of the 2008 amended Organisation and Financing of Education Act which accommodates state funding for foreign citizens but omits non-Slovene speaking citizens: and the lack of consistent practice in schools and inconsistency within legal and political

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3The Educational Institute of Scotland (EIS) is both the largest teaching union in Scotland and the oldest teaching union in the world (EIS, 2015, non-paginated).
discourse as identified by Bešter and Medvešek (2015).

Slovenia’s adoption of an immersion model which in practice does not endorse use of an immigrant child’s mother tongue in mainstream education, as discussed, is incongruent with legislative discourse found in documents such as the Strategy of the Inclusion of Immigrant Children, Pupils and Students in the Education System in the Republic of Slovenia (2007) which clearly support educating non-native speakers in their mother tongue. Such practice also lacks parity with how officially recognised national minority groups linguistic needs are met within the Slovenian education system, which suggests on the one hand linguistic rights of minority communities are recognised but not an individual’s native-language if he or she originates out with one of those communities.

Such discrepancy between policy and practice in the case of Slovenia, implies that policy is not child centred, not formulated with the interests of an immigrant child in mind, but rather, either an oversight in practical implementation of policy or such policy is intended merely to comply with international agreements in the interest of the state to be seen externally as complying with supranational directives.

Similarly in Glasgow, there is a suggestion that financial drivers may have been behind policy change rather than the best interests of non-native language speaking migrant children, with questionable results in terms of increases in EAL pupil access attributable to restructuring which appears to have occurred prior to the change in policy and the reconfigured service. On the surface, policy change, in particular the restructuring of the EAL service in Glasgow, presents as a child centred approach evinced by local authority assertion that restructuring was intended as a service enhancement to better meet the needs of non-native English language speakers across the city, and promoted as a restructuring that would improve the educational attainment of EAL learners. Yet, this discussion has highlighted such motives are questionable.

There is no clear evidence presented by Glasgow City Council that increased attainment resulted from restructuring of the EAL Service, the modest increases they cite are in line with the general aggregate attainment trend displayed across the city. Therefore, was restructuring more out of necessity for Glasgow City Council, faced with both increased numbers of EAL pupils and increasing diversity? Was it wholly a cost saving exercise as perhaps Larry Flanagan’s comments to the Scottish Parliament’s Education and Culture Committee meeting on Draft Budget Scrutiny, may suggest considering also the reductions made by the local authority in the number of EAL staff?

Therefore, detailed analysis of the attainment of EAL pupils’ vis-à-vis their native language speaking peers is essential to ascertain whether there is any
validity to Glasgow City Council claims over the benefits of their policy choice. In-depth qualitative analysis incorporating process tracing is required to explore further the discrepancies between policy and practice in both cases, to examine the decision making process and choices and effectiveness of policy to ensure non-native language speaking children are provided the best opportunity to ‘master the language of instruction’ (Christensen and Stanat, 2007, p.1) and integrate fully in Scotland and Slovenia.

References


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Why do we continue to care about international aid?

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Introduction

As a persistent part of most developed countries’ budgets, international aid continues to play an important role in the architecture of international political economy. Despite reoccurring debates regarding its appropriateness, countries continue to provide aid, some even increasing their aid budgets to new peak levels over recent years (Provost and Tran, 2013). But while ‘Official Development Assistance’ from advanced economies to the world’s poorest reached a record high of 135.7 billion USD in 2013, aid constitutes a small share of the world’s total capital flow (OECD, 2014). In the light of this, the essay attempts to address the topical question: Given its relatively small economic weight, why do we continue to put so much emphasis on international aid?

This essay subscribes to a larger body of literature that questions the purpose of aid giving. It has two objectives. First, it demonstrates that even though international aid has come to constitute a small share of donor budgets, it remains significant in international policy circles and perhaps more importantly, in the budgets of least developed countries. Its economic weight must therefore be understood as highly contingent. This tells us little, however, about why countries continue to put efforts into the provision of aid. To answer this question, it is suggested that we look to the “often neglected domestic politics of aid-giving” (Lancaster, 2007, p.ix). According to this view, aid continues to play an important role in international policy circles due to the prevailing norm that rich countries have a moral duty to assist those that are worse off. In addition, the utility of aid in addressing security concerns as well as donors’ commercial interests is suggested to contribute to its popularity.

Within the arena of international aid, occupied by many actors, this essay will focus on bilateral aid, aid given by country governments. As the provision of aid is appreciated as an entirely voluntarily choice made by donor governments, studying the motivations behind these decisions helps us understand why international aid continues to be the centre of so much attention (Riddell, 2007). To start off, however, it is necessary to agree on a common definition of what is meant by international aid.

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1 For different theoretical approaches to this question see for instance Liska (1960), Hook (1995), Alesina and Dollar (2000), Watson (1981), Lumsdaine (1993) and Lancaster (2007). This is far from an exhaustible list.
Defining international aid

International aid [hereafter simply referred to as aid] is a multifaceted concept that has varied over time and continues to vary amongst different actors engaged in the field. Generally speaking, aid can be understood purely as “the transfer of money, goods and services from one nation to another” (Morgenthau, 1962). It can be expanded to encompass trade and military expenditure or all forms of public expenditure between countries (Lancaster, 2007). Today, however, aid is commonly associated with the official objective of development assistance, involving a transfer from richer economies to the poorer as a means of improving human betterment (van der Veen, 2011). Consequently, this essay will follow the common definition of ‘Official Development Assistance’ put forward by the Organisation for Economic Co-operation and Development (OECD), stating that aid comprises:

Flows of official financing administered with the promotion of the economic development and welfare of developing countries as the main objective, and which are concessional in character with a grant element of at least 25 per cent. By convention, ODA flows comprise contributions of donor government agencies, at all levels, to developing countries and to multilateral institutions (OECD, 2008, p. 1).

This definition excludes aid from non-governmental organizations and private donors, which is in line with the focus here on bilateral aid. Bilateral aid has historically constituted the majority of aid flows. Traditionally it has been conceived as in “support of their [donor governments’] own political, economic and security interests” (Haan and Warmerdam, 2011, p. 11). This diverges from multilateral aid, which is generally understood to be less political, as it is habitually the result of resources pooled together from several donors with the overall aim of promoting common goals (Haan and Warmerdam, 2011).

Economic weight of International Aid

During over half a century of development practise, aid has become an enduring facet of the international agenda. While aid only makes up a small part of the aggregated picture, it currently “represents two-thirds of the money flowing to the world’s poorest, least developed, countries” (Hall et al, 2011, p.14). As this section will demonstrate, the weight of these numbers subsist regardless of the increasing amounts of private flows in the form of FDI and international migrant
Figure 1: Remittances and other resource flows to developing countries (Ratha and Silwal, 2012)

remittances finding their way to developing countries (see appendix 1).

The aid concept as we currently know it arose largely out of the circumstances characterising the decades following the Second World War and the idea that the capital-constraint underdeveloped countries were facing constituted the major obstacle to their economic development. Aid became a favoured instrument in this regard, as it was seen as a straightforward way of countering capital deficiency while also serving as a source of much needed foreign exchange (Lancaster, 2007). While early aid programmes were largely motivated by security concerns and what was then perceived as an external threat from the existence of weak states during the Cold War, the 1970s saw a slight shift away from strategic objectives to assistance more prominently focused on human betterment (Maizels and Nissanke, 1984). By the mid-1980s, assistance directed to the least developed countries (LDCs) had doubled compared to the preceding decades (Lancaster, 2007).

In the post-Cold War years, the aid agenda lost some of its momentum, hitting a low point in 1997 (see appendix 2). It is believed to have fallen victim to the fiscal austerity and declining popularity characterising several donor countries. Yet from the turn of the millennium, aid levels were again on the rise. A resurgent emphasis on poverty alleviation, exemplified by the Millennium Development Goals, and a reappearing emphasis on security threats associated with failed states following the 9/11 attacks, fuelled a revival in donor willingness to provide aid, leading to larger aid budgets from the beginning of the 2000s (Woods, 2005).

Simultaneously with this shift in the aid agenda, the world has witnessed a rapid increase in FDI over the past two decades with a significant quantity directed to developing countries. “Developing countries continued to account for nearly half of global FDI in 2011 as their inflows reached a new record high of $684 billion” (UNCTAD, 2012, p. VI). Accordingly, FDI has come to constitute the major capital flow to developing countries, by 2012 standing at a size several times that of aid (UNCTAD, 2012). A closer look at the numbers, however, exposes large discrepancies between the countries and regions belonging to this broad category. As may be suspected, the rise in FDI to developing countries was mainly driven by investments in what can be characterized as middle-income countries in Asia and to a lesser degree Latin America. Relatively big economies such as China, India, Brazil, South Africa and Mexico, have attracted the bulk of FDI flowing to developing countries over the last decade (UNCTAD, 2005 and UNCTAD, 2014). The inflows to LCDs have also risen in recent years but the segment remains small, with the share of global inflows to the LDCs standing at 2 per cent in 2014 (UNCTAD, 2014).

While one can question the significance of FDI for the LDCs, the mounting
role of international migrant remittances cannot be overlooked, representing three times the total aid budget globally (Provost, 2013). While large economies such as India, China, the Philippines, Mexico and Nigeria are the ones receiving the largest migrant transfers from overseas, these transfers are also important in an increasing number of less developed countries, where remittances have grown to become larger than other capital flows, both public and private (UN, 2010). According to the United Nations Conference on Trade and Development, notwithstanding the effects of the recent global financial crisis, “remittances to the world’s 48 LDCs have continued rising, reaching $27 billion in 2011” (The Economist, 2012). Compared to aid, remittances represent a source of funding free from conditionality and more directly targeted to poorer households.

The direct transfers between family members also represents one of the challenges with this type of capital flow, according to Mutume (2005), as the majority of such money is spent on household consumption rather than saving and investments, the latter of which more explicitly could benefit the development of the society as a whole. The debate is also on-going about whether developing countries should tax this growing flow of revenues (Mohapatra, 2014). Finally, a big obstacle to the smooth flow of remittances continues to be the high costs associated with these transactions, estimated to cost developing countries up to 16 billion USD a year (Anderson, 2014 quoting World Bank).

Having taken into account the increasing flow of FDI and the greater weight of remittances in the LDC countries, “[o]fficial development assistance continues to be the main source of [] financing, bringing in $42 billion in 2010” (The Economist, 2012). Yet, regardless of the obvious significance of aid to the world’s poorest countries, aid has historically averaged less than 1 per cent of donor governments’ spending. Additionally, aid provision continues to be a highly debated topic with critics such as Easterly (2006) and Moyo (2009) calling for the abandonment of what the latter describes as an “unmitigated political, economic, and humanitarian disaster for most parts of the developing world” (Moyo, 2009, p.xix). Others, such as Riddell and Sachs, argue that much more must be given if aid is actually supposed to have any effect (Riddell, 2007; Sachs, 2005). Regardless of the public scrutiny, as the rising aid levels over the last decade have illustrated, governments are still committed to providing aid. The next section will attempt to discuss the reasons for this persistence.

The motivations of donor countries

Aid continues to play an important role in the international political economy, despite its small share, both in terms of global revenue flows and in donor
countries’ aggregated budget, (Van der Veen, 2011; Gilpin, 1987). In the second part of the essay, I will studying the reasons for this attention given to the provision of aid by donor countries.

When studying the motivations behind giving aid it becomes evident that such assistance is advanced by donor countries for a multitude of different purposes and that these reasons are often subject to change (Riddell, 2007). In their analysis of donor motivation for aid, Maizels and Nissanke (1984) differentiate between what they see as motivation based on donor’s national strategic concerns, such as security and commercial interests, and a recipient centred development motive. Promoting human betterment through aid provision can be understood as both an end in itself, but it can also be viewed as an instrument with which to “maximize benefits to donor states, deriving preferences for them from their situation in the international system” (Hopkins, 2000, p. 3).

**Moral obligation**

As was made clear from the initial exercise of defining aid, it is widely acknowledged that aid is characterised by an altruistic aspect that sets it apart from other international phenomena (Van der Veen, 2011). Since the beginning of the development project, a strong ethical case for providing assistance has prevailed, founded on a norm that rich countries have a ‘moral duty’ to assist those considered worse off (Lumsdaine, 1993). The norm has been widely accepted, not only by donor country governments but, as emphasised by Lancaster (2007, p. 214), “over a period of a half-century, publics and elites in rich countries came to accept the appropriateness and even obligation of governments of rich countries to provide aid to governments and peoples in less-well-off ones”. The presence of a moral motive for aid giving can be seen as further emphasised by the adoption of the ambitious Millennium Development Goals in 2001 and the stated commitment by international leaders to increase their provision of aid in order to “meet the needs of the world’s poorest” (Riddell, 2007; UN, n.d.).

Lumsdail (1993, p.3) suggests that the support for such aid arose firstly from ethical concerns with global poverty. A number of more recent trends have strengthened the argument that the rich have the capability and, accordingly, the responsibility to help the poor, the most evident being the widening gap between the developed and least developed over the more recent decades (Van der Veen, 2012; Riddell, 2007).

Continuously ranking amongst the top contributors of international aid, Norway has historically been considered an altruistic donor, who similar to its Scandinavian neighbours, is largely driven by humanitarian goals (Van der Veen,
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As quoted in Riddell (2007, p.140), as one of the world’s richest countries, the Norwegian Government “[a]ccepts its moral responsibility not only to combat justice and fight for economic development, but to make a difference, playing its role in speeding up reforms to reduce poverty, and allocating more resources to fulfil its duty”. The country has further expressed its humanitarian intention by stating that it will untie all aid from commercial interests and attach zero conditionality (Radelet; Van der Veen, 2011). Yet even in the case of altruistic Norway, the division of humanitarian goals from strategic considerations are not clear-cut. As a case in point, in justifying the provision of aid to Ethiopia, a long-term beneficiary of Norwegian assistance, it is clear that the country’s strategic position on the Horn of Africa is an important motivation for the significant assistance directed to the country (NORAD, 2012). The case serves to stress that what may appear seemingly ethical may in fact be heavy influenced by security considerations.

Security interests

As alleged by Jones et al. (2005) “[c]urrent aggregated aid allocations are still significantly shaped and informed by other (non-developmental) criteria, of which the most significant relate to concerns about regional or global security and political considerations” (Jones et al., 2005 cited in Riddell, 2007, p 98). Based on the realist notion of self-interest, Hook et al. (1998), convincingly argues that within a realist framework the main motivation for aid provision can be appreciated as stemming from the strategic interest of nation states. In an anarchic world order, aid is acknowledged to be less a means of promoting human betterment in recipient countries but rather a tool of promoting national security and self-defence. Donors’ security concerns have long been a prevalent theme within aid literature, most prominently during the Cold War. After subsequently having becoming more implicit, security concerns have been climbing up the agenda over the last decade (Van der Veen, 2011).

This resurgence in security-driven incentives amongst countries is according to Lancaster (2007), partly due to the intensified process of globalization. Globalization has not only facilitated what is seen as a ‘spread of problems’ across borders but also contributed to a heightened awareness of their existence. During the 1990s, donor countries witnessed what was perceived as emerging hazards resulting from an upsurge of wars and conflicts in addition to the spread of pollutants and diseases across international borders. With the interest of reducing these threats, donor countries have, according to Hopkins (2000), tended to perceive “a more benign and secure global environment as a key donor
goal to which aid can be attached”. Within this context, the rising aid levels in the previous decade may be understood within the framework of the 2001 terrorist attacks in the USA and their alleged influence on donors’ willingness to increase the provision of aid to assist the ‘global war on terror’ (Woods, 2005). Aid becomes a tool for strengthening donor country security. While positive development effects may derive from it, improved well-being is an instrument rather than the final objective (Lancaster, 2007).

As the largest donor in the world in terms of total amount given, the motivations explaining the aid allocations of the United States have always been of broad interest. While other countries have preferred to be more discrete with regards to the strategic interests driving their motivation for aid provision, security concerns have consistently constituted the principal purpose of US assistance (Riddell, 2007). In the realm of foreign policy, aid is an important tool for promoting US interests (Albright, 2013; Riddell, 2007). This explains why a dominant share of US aid allocations historically has gone to the country’s allies, Israel and Egypt, and more recently also to geopolitical interest related to the ‘war on terror’, notably Iraq, Afghanistan and Pakistan. But, security concerns do not make up the single variable driving attention towards the provision of aid in the USA. According to Riddell (2007), 70 per cent of US aid remains tied to the purchasing of goods and services from the USA, suggesting that commercial considerations represent a significant part of the country’s incentive for providing aid.

Commercial interests

Despite the more recent change in focus towards poverty reduction within the donor community, Riddell (2007, p. 99) claims, “commercial interests of donors remain a ‘significant feature’ of contemporary aid relationships”. Furthermore, in his book *Ideas, Interests, and Foreign Aid*, Van der Veen (2011, pp.12-13) contends that rather than security interests, “the most common interest-based explanation for aid has been that of [donor’s] economic self-interest”. While multilateral aid is understood as less prone to the pressure of domestic interests, bilateral aid is more frequently given with the intention of promoting the economic interests of particular firms or sectors. Commercial self-interests does not only include the development and securing of market access, but also the creation of a market for domestic products, among other things achieved through the practice of ‘tied’ aid.

Historically, there has been a strong appreciation of the potential that follows in the form of trade enhancement and the establishment of more secure foreign
investment opportunities with the provision of international aid. The Marshall Plan, provided to war-torn Europe after WW2, offers a clear example in this regard. In addition to strategic considerations, the provision of foreign exchange from the United States to Europe aimed at creating a market for the former’s exports and included the removal of trade barriers, modernization of the industry and an overall improvement in living standards (Warmerdan and van Haan, 2011).

Another side to the promotion of commercial interests through assistance is the practice of tying aid, implying the conditioned purchase of goods and services from the donor countries (Riddel, 2007). Although several donors are reluctant to admit it, tying aid to the commercial interest of donor countries has historically enjoyed strong standing as it can be advocated as a win-win situation, where recipient countries receive money on the agreement that they purchase exports from the donor country. Despite international efforts to ‘un-tie’ aid, recognising that tied-aid can impose relatively higher costs on recipient countries, in 2007 more than half of the world’s aid flows remained tied. A prominent example of tied aid is that of food assistance from the USA. It states that all food aid must be purchased within the USA and subsequently shipped to the recipient country (Radelet, 2006). This does not only take more time but is also found to add “15-20 percent to its cost, thus significantly reducing its impact on recipient countries” (Radelet, 2006, p.6). Dependency theorists, one of many groups criticising the supremacy of donor economic interests and the commercialisation of aid, argue that such tying not only makes it more costly for recipient countries but also renders the aid less efficient. Such aid, drawing on the dependency theory viewpoint, merely “constitutes an extension of highly exploitative North-South relationships that either preserve or widen economic disparities between wealthy states and Third World countries” (Hook et al., 1998, p 3, Riddell, 2007).

As in the case of the US, for Japan, economic self-interest has consistently dominated the country’s aid agenda. Remaining one of the world’s largest aid donors, Japanese public officials have repeatedly emphasised their willingness to use aid in the promotion of Japan’s commercial needs abroad, notably the expansion of exports and safeguarding raw material imports. This is seen as pivotal in maintaining the country’s prosperity levels (Riddell, 2007). Furthermore, Japan’s aid allocation has historically remained concentrated, with two-thirds going to its ‘neighbouring’ countries in East Asia and most of aid targeted towards what was seen as “commercially attractive sectors” (Lancaster, 2007, p. 113). As noted by Lancaster (2007), in the early days in the aid provision of the country, “[a]id was seen less as a gift directed at reducing poverty abroad than an investment in growth, both for Japan and the recipient country”. Securing ones own interests while at the same time allowing for the generation of economic
growth in the recipient country has traditionally enjoyed strong prominence on the Japanese aid agenda, helping countries to ‘help themselves’ thus securing human betterment.

Conclusion

This essay discuss why so much attention is given to international aid in a time where aid flows constitute a small part of the aggregated economic picture. After contending that aid continues to represent an important function globally, particularly when viewed from the perspective of LDCs, the essay went on to study three explanations as to why donor countries continue to direct effort towards providing aid. First, the moral obligation to assist features predominantly in the official reasons given by most donor countries, although not all can be said to be as altruistic as is often argued to be the case in Norway. Secondly, although some may argue that it is less evident, security concerns can be seen as a major motivator for providing aid, the USA serving as an obvious example. Finally, the commercial incentives tied to giving aid may be another key stimulus, as appears to have been the case in Japan. The use of aid in the fight against terrorism or to promote domestic industries have led many to question if aid is really serving its principal purpose. At the same time, proving that altruism can also bring positive effects at home through creating economic opportunities or reducing the threat of terrorism is argued to make aid levels more palatable to the population in donor countries. The important question remaining to be addressed is of how this kind of international aid, driven by the commercial or security interests of donors, will serve the needs of the recipient countries.

References


Why do we continue to care about international aid?


Why do we continue to care about international aid?

Voltaire and the ancient ‘moderns’ - in pursuit of pleasure

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For a poem of a mere 128 verses, Voltaire’s *Le Mondain* (1736) made considerable waves in French society, not only in terms of the scandal it caused in the years following its supposedly unintended publication, but also in terms of its contribution to one of the most important intellectual debates of the mid-eighteenth century: the question of the moral implications of luxury. Reservations as to the morality of decadent living were hardly new – one need only read the satires of Petronius or Juvenal to get a taste of the vanity of the haves and the anguish of the have-nots in classical Rome. In many ways, France in the eighteenth century appears to have been not much different. The advancement of manufacturing and improved navigation, however, meant that luxury goods were increasingly reaching a broader section of society, prompting in Europe renewed intellectual interest in the nature of luxury and a fervent discourse on its virtues and vices.

Discussing the nature of luxury is in itself difficult, since it is a concept which ‘crosses conventional intellectual boundaries’¹, spanning the realms of ‘political economy, moral philosophy, literary culture and aesthetics’². For some, this inherent difficulty is heightened in *Le Mondain* by what has been called Voltaire’s enigmatic rhetorical style, and his ‘calculated scorn of logical transitions of thought’³. A more favourable interpretation might attribute the learned and allusive nature of the poem and its twisting rhetoric to the poet’s ambitious project of drawing together in lively and wry decasyllabic verse philosophical and religious criticism, economic debate, and, as I will argue, statements of literary and aesthetic affiliation. *Le Mondain* seems to have been universally understood as a statement in favour of luxury. Yet it should be acknowledged that there is not so strong a consensus as to how the publication of related works such as the *Défense du Mondain* (1737) and *Sur l’usage de la vie* (1767)⁴, can contribute to our understanding of the development of Voltaire’s position.

Little critical attention, however, has been given to the complex stylistic qualities of the poem, how these are designed to make the poem more compelling, and what these can contribute to our understanding of Voltaire’s position in the luxury debate. Our best route to understanding these subtleties and their contribution to the richness and persuasiveness of *Le Mondain* lies in adopting

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¹Luxury In The Eighteenth Century, eds. Maxine Berg and Elizabeth Eger (2003), p.4
²Ibid., p.5
⁴Although this poem did not appear in print until 1767, H. T. Mason proposes that its tone and textual similarities with the fourth *Discours en vers sur l’homme* (1738) indicate a composition around the same time as the other poems associated with *Le Mondain*. Cf. H. T. Mason in OCV, No. 16, Œuvres de 1736, ed. Nicholas Cronk, Oxford (2003), p.285
a new perspective from which we might approach the poem. This perspective centres on the hypothesis that *Le Mondain* represents a sort of synthesised response from Voltaire, designed to treat not only the luxury debate, but also the *querelle des anciens et des modernes*. Voltaire shows himself in the content of *Le Mondain* to be against the idea of blind adherence to ancient or religious authority and in favour of material pleasures, economic and cultural progress, and the idea of nature as a guiding principle in determining the morality of luxury. I will argue that Voltaire echoes the modernity of these sentiments in the poem’s form, and, in doing so, makes a statement of his particular position in the *querelle des anciens et des modernes*.

It seems appropriate to give at least a brief overview of this *querelle* which many would consider outside the scope of the luxury debate, but which Voltaire seems to have taken particular pains to introduce to the discussion as presented in *Le Mondain*. Towards the end of the seventeenth century, the publication of Boileau’s *Art poétique* (1674) triggered a debate which raged through France, dividing the literary elite into two opposing factions. The *anciens* viewed the writers of antiquity as the absolute pinnacle of aesthetic quality and literary achievement, the like of which subsequent generations could only imitate as closely as possible in the hope of similar success. The ever-growing hegemony of the French language over neo-Latin, which had still abounded only a century before, was a source of consternation for the ‘ancients’ who felt that ‘only professional scholars had the right to pronounce on literary issues’. They were reacting against the broadening of intellectual discussion beyond the walls of the *Académie Française* and outside of the traditional intellectual élite into groups of new readers – both educated men and women – who formed what we might think of as the first ‘reading public’. The *modernes*, on the other hand, preferred to trust in their own ability to create works which displayed originality and imagination, and reflected the intellectual progress which they felt characterised their age. Charles Perrault’s famous poem *Le Siècle de Louis le Grand* (1687),

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9 Joan DeJean points to Antoine Houdar La Motte as being among the very first to make the connection between public opinion and literary criticism in his 1715 *Réflexions sur la critique.*, Cf. Ibid., p.154
called by one critic ‘ce bulletin de victoire de la science contemporaine’, fed the fires of the debate. It celebrates the inventions of the modern era (such as the telescope, the microscope and, in the light of recent technological advancements, called into question the esteem in which the ancients were so often held:

‘Et l’on peut comparer sans crainte d’être injuste
Le siècle de Louis au beau siècle d’Auguste . . .
Platon, qui fut divin du temps de nos aïeux,
Commence à devenir quelquefois ennuyeux . . .
Chacun sait le décri du fameux Aristote,
En physique moins sûr qu’en histoire Hérodote . . .’

The moderns questioned the validity of extrapolating aesthetic rules from ancient models, not least because many of them were familiar with Latin and Greek works solely through French translations. Those who were familiar with Latin and Greek might even hide their knowledge to appease a public which had great social prestige and hated the pedantism associated with classical languages. Equally, there was a commitment to a lighter, briefer style than was thought characteristic of ancient writers, with the preference of the société lettrée of the salons being ‘de livres courts, écrits d’un seul jet, et où l’utile est inséparable de l’agréable’.

There seems to be no real critical consensus as to Voltaire’s own stance on the querelle des anciens et des modernes, and indeed his œuvre demonstrates aspects which could align him with either group. This is no doubt in part because of the critical distance he enjoyed by entering the debate some years after its most animated period – even the most recent reprise of the debate in France was over a

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11 Ibid., p.19
14 Ibid., p.16
15 Ibid., p.16
16 Larry Norman (The Shock of the Ancient, Chicago, 2011, pp.214-5), for example, offers the nuanced proposal that in his 1733 Essai sur la poésie épique Voltaire slowly came to cast off an inherent Modern resistance to Homer under the influence of English ‘ancients’ such as Shakespeare and Alexander Pope. Others like Ira Wade prefer simply not to venture an opinion as to Voltaire’s particular allegiance.
decade before the composition of *Le Mondain*. Ira Wade describes his allegiance as being ‘not entirely secure’  

either way, due perhaps to his choice of classical themes for his plays, or else his inability to reconcile himself with the attacks on poetry by a number of the *modernes*. His *Essai sur la poésie épique* (1733) has sometimes been seen as an apology for classical tastes and yet his impassioned avowals of classical epic poetry display none of the prescriptivism of the *anciens* and much of the creativity associated with the *modernes*. In reading this *Essai* it becomes absolutely clear that Voltaire is, above all, committed to poetry, and committed to being a poet of his own time. This implies that he must ultimately create something that reflects his own age, while being willing to take inspiration from the great classical writers:

‘Nous devons admirer ce qui est universellement beau chez les anciens; nous devons nous prêter à ce qui était beau dans leur langue et dans leur œuvres, mais ce serait s’égarder étrangement, que de les vouloir suivre en tout à la piste . . . Il faut peindre avec des couleurs vraies comme les Anciens, mais il ne faut pas peindre les mêmes choses.’

The notion of Voltaire wavering between the ancients and moderns is, therefore, a little unfair. Rather, he makes the most of the critical distance mentioned above in order to reject partisanship and craft for himself a unique aesthetic affiliation, displaying qualities associated with both the moderns and the ancients but driven ultimately by his commitment to contemporary society and his anti-authoritarian tendencies. The *Essai sur la poésie épique* is a testament to the admiration Voltaire felt for classical writers, but the originality of his thinking lies in his distinct and less rigid understanding of the nature of the classical canon than that of the late seventeenth-century partisans of both ancients and moderns. This understanding is personal and eclectic, rejecting the notion of a homogeneous literary culture among the ancients. Fundamentally, Voltaire recognises the existence of the same ‘modernity’ he detected in himself in certain classical writers. I believe it was exactly this ‘modernity’ which made writers like Ovid, Horace, Propertius, and even Virgil appealing to Voltaire. It also served

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20 Virgil is so canonical a Latin writer, and associated so strongly with the serious, nationalistic poetry of his Roman epic *The Aeneid* that I would be remiss in not justifying his inclusion as a ‘modern’ ancient. It is to some extent a matter of perspective and also a matter of literary history. Since Virgil had the whole canon of Homeric and Hellenistic poetry to play with as his intertexts, he
as inspiration for *Le Mondain*, mainly because of the ironic twist his choosing these ancient ‘modern’ poets as aesthetic models could bring to the poem. This combination of learned *exempla* and creative wit endows Voltaire’s poem with the very same *nitôr*\(^{21}\) sought after by the Augustan poets he employs as intertexts. The effect of this *nitôr* is to add an archness, sophistication and, above all, irony to the arguments in favour of luxury and vehemently against ancient superiority presented in *Le Mondain*. The poem seems to represent, in the light of this reading, one of the clearest instances of Voltaire’s affiliaiton with the *modernes*, though partisans of the seventeenth century would not perhaps have recognised him as such.

In the luxury debate, too, Voltaire brings about the confluence of two very modern ideas: on the one hand, he advocates the rejection of utopian – and often religious – ideas of an inherent virtue and happiness in primitive ancient societies, scorning the idea of *le paradis terrestre*; on the other, he praises progress and enlightenment as the work of Nature, brought about by our innate desire for material abundance and luxury and made possible through modern commercial practices. What is really at stake is the question of human happiness and whether the pursuit of luxury and other material pleasures in the eighteenth century could bring about happiness without moral corruption. Voltaire’s response to this is not immediately clear. His stance in *Le Mondain* is deliberately obscured throughout the text by the complicated nature of the poem and by Voltaire’s decision to interweave his arguments with a response to the ancients and moderns debate. He sets up classical and religious authorities in order to undermine them and hesitates to make any sincere statement of his position on the alleged connection between luxury and vice. There is, however, an undercurrent running throughout the text, in the form of examples of classical ‘modernity’ and of alleged primitive ‘vice’, which stresses implicitly that the human urge for pleasure is not only not wrong, but inescapable as an aspect of nature: it can be denied, or, indeed, culturally suppressed, but it cannot be truly avoided. Consequently, Voltaire’s answer to the burning question is not that one can have the pleasures of luxury while avoiding vice, but rather that vice does not enter into the equation, since the pursuit of material and sensual pleasures is part of what it means to be human under natural law.

The richness of Voltaire’s poem would make an exhaustive line-by-line

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\(^{21}\)A Latin term denoting brightness, splendour, brilliance, used particularly to describe the rich allusive poetic devices employed by Rome’s sophisticated neoteric poets.
analysis impractical, repetitive, and exceptionally long. What follows, therefore, treats the poem’s main arguments in the luxury debate, framing the discussion for the most part by means of the way in which Voltaire situates and complicates these arguments with the classical intertexts and literary devices he employs as part of the dual purpose of *Le Mondain*. I will explore the connotations of references to the classical world throughout, but will look in particular at the use of Ovid’s *Ars Amatoria*, which rejects rusticity, infers sexual licence and establishes the subversive and humorous nature of the poet’s voice; at Propertius IV.1, which serves to associate Voltaire with sophisticated Augustan poets and allude to the nature of *Le Mondain* as being an object of luxury itself; and at the strong reference to the atmosphere of sexual libertinism and *luxus mensae* associated with the Horatian symposium. For the sake of both brevity and clarity, I will at times discuss arguments made in disparate parts of the poem together, where they work to support the same overarching argument in Voltaire’s stance on luxury.

**Voltaire against ancient authority – the ‘golden age fallacy’**

Let us begin with Voltaire’s disdain for unthinking veneration of ancient, rural or primitive societies, all of which we might think of as coming under the umbrella term ‘golden age’. Although the poet does mention certain mythical golden ages by name – that of Saturn and Rhea, or of Astraea, who represented the first race of men as described by Hesiod and Ovid – he is really drawing our attention to the illogical cultural practice of associating certain *temps* with certain *mœurs*, hence the tongue in cheek remark: ‘ce temps profane est tout fait pour mes mœurs’ (v.8). The tone of these first lines (vv.1-4) is already dismissive (‘Regrettera qui veut . . .’) and the repetition of ‘et’ (vv.2-4) gives the impression of a list which never ends. Barely four lines into *Le Mondain* we already get the impression of a poet so bored by the expectation that he should engage in the customary adoration of ‘le bon vieux temps’ (v.1) that he would rather rattle off all the examples he can think of as quickly as possible and expend his poetic energies somewhere else. So why does Voltaire bother to engage with the classical culture he seems to disdain? He begins the poem with strong verbal reminders of the archetypal classical golden ages, which heightens the discord of the paradoxical message he goes on to proclaim. The subversion of the reader’s expectation also immediately establishes Voltaire as an unreliable, or, at the very least, mischievous poetic presence, setting the tone for the rest of the work. This reading is strongly supported by the similarity of verses 1 and 8 to lines from the third book of Ovid’s didactic poem the *Ars Amatoria*. 
Voltaire and the ancient ‘moderns’ - in pursuit of pleasure

‘Regrettera qui veut le bon vieux temps . . .
Ce temps profane est tout fait pour mes mœurs’

‘Prisca iuvent alios; ego me nunc denique natum
Gratulator; haec aetas moribus apta meis’

‘Let ancient times delight other folk: I congratulate myself that I was not born till now; this age fits my nature well.’

[Ars Amatoria III.121-2]

The significance of the literary allusion is manifold. At this point in the Ars Amatoria, the poetic narrator, known as the praeceptor amoris (teacher of love), who has presided over the previous two books, breaks all of the rules of the didactic genre in attempting to seduce the female addressees of the third book and thus destroys the reliability and authority he had previously established. Voltaire’s decision to allude to this particular book of the Ars Amatoria hints that he, too, will be mischievous and subversive in Le Mondain and serves as a playful warning to astute readers to be on their guard for this. Persistent references to sensual pleasure (the praeceptor amoris praises his age in no small part for its widespread sexual libertinism) serve as further evidence of Voltaire’s wish to identify Ovid as a ‘modern’ ancient. Furthermore, only a few lines later Ovid’s narrator makes the claim that he loves the age he is in not merely because of various luxuries available to him, ‘but because culture is with us and rusticity, which survived until our grandsires, has not lasted to our days’ a statement which has a great deal of resonance with the stance of the modernes of the seventeenth century. In praising the technological advancement and cultural refinement of his own Augustan Rome, Ovid was going somewhat against the grain. Augustus himself made a point of praising the frugal, rustic lifestyle of earlier Romans and even introduced sumptuary laws in order to try to control behaviour and spending, which is doubtless why Ovid voiced these ideas through his unreliable praeceptor amoris as a means of self-preservation. It is easy, then, to see why Ovid’s Ars Amatoria appealed to Voltaire for use in setting the tone of Le Mondain, allowing him to flex his intellectual muscles with clever literary allusions to classical texts which shared his modern outlook on sexual libertinism and the importance of cultural progress.

22 ‘Sed quia cultus adest, nec nostros mansit in annos Rusticitas, priscis illa superstes avis.’ Ovid, Ars Amatoria III.127-8
23 Roderick Thirkell White. ‘Luxury at Rome: avaritia, aemulatio and the mos maiorum’, Ex Historia 117, p.127
In a section of the poem which was far less likely to escape the notice of any of his readers, Voltaire boldly uses the example of the primitiveness of Adam and Eve, the ‘premiers parents’ (v.5) referred to at the beginning of *Le Mondain*, in order to illustrate that their austere lifestyle was the result of ignorance rather than borne of any virtuous predilection for asceticism.

‘Quand la nature était dans son enfance
Nos bons aïeux vivaient dans l’innocence,
Ne connaissant ni le tien, ni le mien;
Qu’auraient-ils pu connaître? ils n’avaient rien.
Ils étaient nus, et c’est chose très claire,
Que qui n’a rien, n’a nul partage à faire.’

These verses (vv.30-5) constitute Voltaire’s most explicit denial of the idea of inherent virtue in primitive society and are all the more potent since he levels his attack at Adam and Eve, the symbols of the genesis of Christianity. In direct contradiction of the pervasive ideas of their life before the Fall as virtuous and blissfully happy, Voltaire describes Adam and Eve as ignorant of the benefits of property, as they simply had none. The argument is clear: the frugal primitivism of Adam and Eve was borne out of ignorance of better circumstances and not a virtuous love of asceticism, (Il leur manquait l’industrie et l’aisance: — Est-ce vertu? c’était pur ignorance’, vv.42-3). Why else, Voltaire asks, would they wear no clothes (v.34) and sleep not on beds but on the hard ground exposed to the elements (vv.44-5, v.59), eating nothing but the most meagre of foods (vv.38-9, v.58)? He attributes this lack of even the basic necessities in life, let alone luxuries, to Nature’s being ‘dans son enfance’ (v.30). This personification suggests that Nature was not yet mature and not yet sufficiently ‘sage’ as she is described as being in Voltaire’s own age (v.4), to bring about the sort of abundance and productivity he has just spoken of in the passage which precedes – seafaring, gold-mining, etc. (vv.18-19).

Much of this narrative is marked by the implicit comparison of classical golden ages with the biblical Garden of Eden, with the effect of reducing the latter to the same level as – or, in fact, a baser level than – the former. Voltaire makes these comparisons by juxtaposing the classical golden ages and the ‘jardin de nos premiers parents’ for instance, in order to make the strongest possible argument against the supposed primitive virtue of the Garden of Eden as presented in religious scripture. He rejects the logic of a virtuous and content primitive society by presenting *le paradis terrestre* as a false utopia, against which he can rally just as much as he does against the classical golden ages from the poem’s beginning. The similarities are already there to be exploited – the Adam and Eve
story involves a ‘fall’, just as Saturn’s reign came to an end and Astraea left the world. Adam and Eve, however, do not compare favourably to the classical golden ages in terms of their lifestyle. For example, in Ovid’s version of the Golden Age, from Book I of the *Metamorphoses*, food is ample, varied and freely given\(^{24}\), and the inhabitants are said to live without ‘the fear or threat of punishment’\(^{25}\) which hung over Adam and Eve were they to eat the forbidden fruit from the Garden. So we see that, by comparison with the classical equivalent, ‘les beaux jours de Satyrne et de Rhée’ (v.3), the supposed *le paradis terrestre* inhabited by Adam and Eve, turns out to be the least pleasant and luxurious of golden ages. Voltaire employs this widely-known classical example to stress the illogical idea that the even more primitive and destitute biblical figures lived a life which could in no way lead to happiness.

**Voltaire against religious authority and in favour of the supremacy of nature**

Having dismantled the idea that the primitive and meagre existence Adam and Eve must have lived could have been in any way happy, let alone utopian, Voltaire moves on to reacting against the idea that they were virtuous. We have already seen his dismissal of the idea of their having an inherent virtue as a product of ascetic living, but he now sets out to stress the sexual desires the pair must have felt and certainly must have engaged in if they propagated the race of men. There is in these verses a pointed move away from arguments which simply discredit the logic behind biblical scripture and instead focus on images, descriptions, and implications which could be said to profane these symbols of the Christian faith. It seems clear that Voltaire wished to stress the true and unpleasant nature of primitive man over the fiction propagated in the Bible as a celebration of the progress which made his modern age great. He also offers the idea that Nature subjected Adam and Eve to the same desires and impulses we feel today, and, by implication, that sensual pleasure, as well as material pleasure, is a part of a common human nature. In doing this, he is not making a statement that Adam and Eve were full of vice rather than virtue, but merely stressing Nature’s eternal role in human impulse and development. In the passage on Adam and Eve

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\(^{24}\)The earth . . . produced everything from herself . . . food grew without cultivation, they collected mountain strawberries and the fruit of the strawberry tree, wild cherries, blackberries clinging to the tough brambles, and acorns fallen from Jupiter’s spreading oak-tree . . . Then the untilled earth gave of its produce and, without needing renewal, the fields whitened with heavy ears of corn. Sometimes rivers of milk flowed, sometimes streams of nectar, and golden honey trickled from the green holm oak.’ Ovid, *Metamorphoses* I.101-12

\(^{25}\)‘. . . poena metusque aberant’, Ovid, *Metamorphoses* I.91
Voltaire’s tone tends towards irreverence, and is sometimes mocking in its overfamiliarity. He banter with Adam as though to a close friend, (‘mon cher adam, mon bon père’ – v.46) and uses familiar language when speaking, for example, of ‘le gosier d’Eve’ (v.39). By verses 46-9, Voltaire is beginning to push the boundaries of propriety, posing smutty questions to Adam, who he calls ‘mon gourmand’ (v.46), not of course referring to his love of food, but to sexual appetite in reference to the role Adam and Eve are supposed to have played in the propagation of the human race. The difference in register of this episode, coming after Le Mondain’s ironic but nonetheless fairly lofty opening and immediately following the éloge to abundance and commerce, feels particularly pointed. Voltaire also seems to revel in the idea of sensual pleasure being the only form of occupation on offer in Eden (‘Que faisais-tu dans les recoins d’Eden? — Travaillais-tu pour ce sot genre humain?’ vv.47-8). This display of machismo progresses from verse 50, however, to particularly graphic descriptions of what Voltaire supposes must be the dirty and unappealing condition of Adam and Eve’s skin, hair and nails (vv.50-3):

‘Les ongles longs, un peu noirs et crasseux,
La chevelure assez mal ordonnée,
Le teint bruni, la peau bise et tannée.’

Their dirtiness, he suggests, degrades their intercourse from something sensual and pleasant to something animalistic and shameful – not ‘heureux’ (v.54) but ‘honteux’ (v.55). The effect of this is of course to discredit the innocent virtue Adam and Eve are assumed to have, and to highlight an obvious fallacy in the Bible’s depiction of their le paradis terrestre: namely that a total lack of luxury is rustic and charming – in fact, for Voltaire, the absence of all luxuries reduces man to the most basic and primitive version of a human and turns him into little more than a beast. H. T. Mason makes a very convincing suggestion that the bestial quality of Le Mondain’s Adam and Eve, and their ‘besoin honteux’ (v.54) may be a further literary allusion to one of Horace’s Satires26. Adam and Eve, as we find them in Le Mondain, do bear a strong resemblance to the first primeval creatures on earth as found in third satire of Horace’s first book. These primitive humans are described as beasts who eat acorns and fight with long nails27, a possible inspiration for the ‘ongles longs et …crasseux’ of verse 50. The passage in

27‘cum prorepserunt primis animalia terris, — mutum et turpe pecus, glandem atque cubilia propter — unguibus et pugnibus’, (When the first living creatures crawled on primeval Earth — Mute, formless beasts, they fought for their food and shelter — With claws and fists), Horace, Satires I.iii.99-101
Horace may also have given Voltaire the inspiration to depict Adam and Eve as being driven by intense sexual desires which are almost bestial in nature; the Latin poem describes the primitive humans fighting over mating partners, killing to secure their own sexual pleasure\footnote{\textit{nam fuit ante Helenam cunnus taeterrima belli — causa, sed ignotis perierunt mortibus illi — quos venerem incertam rapientis more ferarum — viribus editior caedebat ut in grege taurus.}, (Even before Helen’s day cunts were a dire cause for battle — But those who snatched promiscuous love like beasts — And were killed like a bull in the herd by a stronger bull — Died an unsung death) – Horace, \textit{Satires I.iii.118-20}}. This is, of course, unnecessary in a society with only two people, but sets up Adam and Eve’s sexual activity as being driven by the same primitive intensity, entirely removed from the seductive art of ‘glanterie’. And yet, Voltaire chooses to evoke this paradoxical concept through his use of the adverb ‘galamment’ just afterwards, contrasting previously bestial and shameful sexual exploits with the image of the pair eating a post-coitus supper of water, millet and acorns in a \textit{galant} manner\footnote{\textit{Galant} was a term associated with elegant conduct and refined cultural tastes, not unlike the \textit{honnête homme}, and defined in the TLF as a man ‘qui sait plaire en société par l’élegance de son allure et la politesse raffinée de ses manières, par son bon goût et sa finesse d’esprit.’}, (‘Dessous un chêne, ils soupent galamment’, v.56).

The shift from the primitive, the bestial and the sexual to an image of polite dining that would not be entirely out of place in Voltaire’s own age of sophisticated modes of behaviour is jarring. The suggestion that Adam and Eve, who have previously been labelled ‘honteux’, might do anything galamment is clearly intended to be ironic, and serves to further distance the reader from the idea that our ‘premiers parents’ were as they are presented in scripture. Voltaire’s purpose is to point out hypocrisy rather than to make accusations of vice, and the overall thread of his argument supports this. Rather than enslaving them to a notion of what it means to be virtuous and Christian, we understand the pair as primitive – and therefore less developed culturally and intellectually – versions of ourselves, giving in to the pleasures which Nature bestows on all humans. Horace’s account recognises, as Voltaire wishes others would, the lack of development in primitive man, presenting a picture of his baseness and also his innate pursuit of sensual pleasures, which makes him akin to, if not exactly the same as a man in Voltaire’s own age. There is, then, a universalising aspect to Voltaire’s preoccupation with the sexual activities of Adam and Eve and Horace’s satire, which although it has no specific literary function in the argument, serves to confirm Voltaire in this belief.
Voltaire in favour of material and sensual pleasures

We should now turn our attention to the other side of the luxury debate as expressed in the poem. Since Voltaire appears to deny the idea of frugality and rural utopian existence as a means to happiness and moral virtue, what does he propose instead, and how does this fit with the particular modern aesthetic we have seen at work in other parts of *Le Mondain*?

Much of the criticism of *Le Mondain*, and indeed the interpretation of most of the public in the years following its publication, sees the work as a panegyric on hedonism and material pleasures. At the beginning of the poem Voltaire seems to concede with defiance the imagined allegations of the ‘immorality’ of his society and of luxury. He says that he is, in fact, happy to be born in this age which is ‘tant décrié’ (v.7) and that it is ‘pour [son] bien’ [v.6]. There is a deliberate implication that the laxer morals as well as the luxuries offered (‘ce temps profane est tout fair pour mes mœurs’) are the very reason it suits Voltaire. These are statements designed to shock and provoke, but the declaration which comprises verses 9-12 serves to shed some light on Voltaire’s defiant – if a little dramatic – assertions of his own immorality:

‘J’aime le luxe, et même la mollesse,
Tous les plaisirs, les arts de toute espèce,
La propreté, le goût, les ornements,
Tout honnête homme a de tels sentiments’

After a tantalising introduction that suggests the imminent disclosure of some choice account of immorality, Voltaire seems to ‘come out’ as an *honnête homme* – a highly cultured man of refinement and taste. We learn that his vices are keeping clean, eating well and taking pleasure in art and ornaments. The overblown statements of his own immorality, then, (e.g. ‘mon coeur immonde’, with its ironic inversion of the poem’s title v.13) provide a crescendo which builds before ending in a rather bathetic and banal statement which could be said of any number of Voltaire’s learned contemporaries. The effect of the bathos is to suggest that a penchant for luxury presents no moral problem, and that it is something that everyone of refinement and taste – particularly a certain class of the person, such as the *honnête homme* – will feel naturally drawn to. Voltaire seems to oppose, then, the demonisation of contemporary society as l’âge de fer. It is clear that he fails to see any harm whatsoever in his pursuit of material pleasures; Nature has made Voltaire just as she has made ‘tout honnête homme’, the only difference being that he admits his pleasures.

Voltaire moves swiftly on to a discussion of the abundant possibilities for
luxury (‘Il est bien doux . . . de voir ici l’abondance à la ronde’ vv.13-4) and the various material pleasures that Nature provides.

‘L’or de la terre, et les trésors de l’onde
Leurs habitants, et les peuples de l’air
Tout sert au luxe, aux plaisirs de ce monde;
Ah le bon temps que ce siècle de fer!’

With so much on offer, the Iron Age, far from being the unpleasant fallen age from classical myth, represents for Voltaire a time of leisure and prosperity. Verses 13-7 show us what may be the first indication in Le Mondain of an economic argument in favour of luxury.

‘Il est bien doux pour mon coeur très immonde
De voir ici l’abondance à la ronde,
Mère des arts et des heureux travaux,
Nous apporter de sa source féconde,
Et des besoins et des plaisirs nouveaux.’

Voltaire in his capacity as honnête homme considers that the abundant luxury available to him and his contemporaries is causing the arts and intellectual pursuits to flourish, and makes a crucial argument that abundance breeds abundance – that the more we have, the more we want and the greater are our demands. Where there is demand, the need to supply further luxuries can increase economic prosperity on a wider scale. Luxuries, then, are a great boon for a society and can better the situation of many, increasing prosperity, as Voltaire argues in verses 21-9, through commercial exchange and travel: ‘Le superflu, chose très nécessaire, — a réuni l’un à l’autre hemisphere’ (vv.21-2). Voltaire here is making a similar statement about abundance breeding demand – le superflu stands in equivalence to l’abondance, both of which Voltaire associated with plaisir and progress. Besoin is equally related to demand and we see in the verses which follow that the demand for luxury – le superflu – is what has engendered progress throughout the world. This is a process of cross-cultural commerce and travel which not only spreads wealth but broadens knowledge through exposure to new cultures, which Voltaire characterises as ‘un heureux échange’ (v.26).

Not all of Le Mondain’s arguments in favour of luxury and the pursuit of pleasure focus on the economic advantages. At verse 61 we are snapped out of the Garden of Eden by a decisive ‘or maintenant’ and brought back to the ‘tant maudit’ iron age of Voltaire’s contemporary society. He contrasts the previous episode of ignorance and poverty with an account of the lifestyle of an ‘honnête
homme’ – a man of the world with philosophical and artistic taste and the means to pursue them. Voltaire changes tone yet again, switching to a more inclusive and guiding mode – we are now addressed as ‘mes amis’, credited with being ‘Enfants du goût’, and invited into the house of the honnête homme. What follows is a lavish and detailed description of a day in the life of a man of considerable wealth and refinement, narrated by the poetic voice and detailing works of great craftsmanship and beauty, such as gilded carriages and paintings by Poussin. Voltaire’s extensive list of the crafts and craftspeople who have helped to adorn the home of the honnête homme, like most aspects of this densely worked poem, works in two ways, both as a celebration of the achievements of the moderns of the age, and a celebration of beauty of objects of luxury. The use of the voice of the poet as a guide within the poetic locus (‘entrez chez lui’ …v. 65) has some interesting possible intertexts, notably the opening of Propertius’ last book of Elegies in which the poet expresses particular concerns regarding poetic identity. The guiding voice in Propertius IV.1 is pointedly that of a poet who is particularly keen that we regard him as Roman as he takes us on an imagined tour to the City’s landmarks from long ago. The second half of this opening poem is a prophecy about the poet’s future successes. Although it should be acknowledged that Propertius IV.1 may not be the particular poem Voltaire made use of in Le Mondain – indeed, he may not have had any single intertext in mind – I would argue that he is displaying a concern for his poetic identity which mirrors that of a number of Roman poets. In Le Mondain, then, we are invited to conflate the identities of Voltaire, of the poet and, to an extent, of the honnête homme, or a philosophe type figure who, according to the article of the same name in the Encyclopédie, shares our mondain’s sense of duty to engage in society, to enjoy and partake in the wealth of goods nature offers and, in doing so, to live a life of pleasure and happiness. I would argue that the particular emphasis on establishing an identity for the poetic voice in Le Mondain, which brings to mind, as we have seen, the poets of Augustan Rome, also has another effect: the suggestion of a patron-client system in which influential men of the highest rank would enlist the help of talented and sophisticated poets in order to write works in their interest. This would serve to make Le Mondain a luxury item in itself – a richly wrought poem full of sophisticated allusions and witty poetic tricks and

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30 ‘Notre philosophe ne se croit pas en exil dans ce monde; il ne croit point être en pays ennemi; il veut jouir en sage économ que la nature lui offre; il veut trouver du plaisir avec les autres: & pour en trouver, il en faut faire: ainsi il cherche à convenir à ceux avec qui le hasard ou son choix le font vivre; & il trouve en même temps ce qui lui convient: c’est un honnête homme qui veut plaîre & se rendre utile.’ in Philosophe’ – L’Encyclopédie ou dictionnaire raisoné des sciences, Vol. 12, p.510 (Chicago Encyclopédie Project)
in every sense equal to the work of Poussin or Correggio. It functions almost as a calling card for Voltaire who seems to be inviting potential patrons to put themselves in the place of the honnête homme celebrated in Voltaire’s verses.

The end of the poem is a response to a particular work of Fénelon, namely the Téléméaques of 1701, which used an imagined version of Homeric society in order to praise the idea of the very same frugal, rural utopia that Le Mondain has refuted. The poem drifts seamlessly from the account of a merry and lavish supper (vv.102-9), complete with wines, women, and champagne into an outright challenge to Fénelon’s work which is portrayed, in contrast to the cheery party, as ‘malheureux’, ‘tristement virtueux’ and ‘riches d’abstinence’ (vv.115-7). Another classical allusion, to the Horatian symposia – lavish and drunken dinners – is at work here. Descriptions of such dinners, and of the luxuries of the table (luxus mensae) are a feature of of a number of Horace’s Odes. These symposia are often imbued with an underlying sense of eroticism, effected very often, – and, indeed, here in Voltaire’s poem too31 – by the use of Greek names to denote the women guests, often thought to have been courtesans. The effect of the very close juxtaposition of this Horatian scene and the grim description of Fénelon’s imagined Ithaca is pointed. Voltaire is letting us know that he is free to pick and choose which of the ancients he admired and what aspects of their poetry he was most keen on. The irony, once again, is palpable. Voltaire the ‘moderne’ and proponent of the ‘iron age’, alludes to an ancient poetic model who celebrates eating, drinking and sex, just as Voltaire himself does. Immediately afterwards, he decries the pseudo-Homeric utopia proposed by Fénelon, stripping of it of its authenticity in order to expound a false idea of the inherent virtue of austere early societies, comparable to the Biblical account of Adam and Eve’s primitive existence.

We see then, that Voltaire’s use of classical intertexts in Le Mondain is varied and inventive, ranging from close textual references to instances of evident inspiration. What seems to unify his choice of material is that it comes from Roman poets who display, either generally or in the particular instance Voltaire refers to, a ‘modern’ sort of sensibility – something with which he could identify. This point of relation seems very often to have been references to sexual licence, which has evident appeal to Voltaire in lending the weight of the ancients to his modern libertinism, and in the process, therefore, tying the hands of the potential detractors Voltaire so likes to set up in his works. What seems clear to me is that the irony inherent in drawing so much from classical texts when arguing,

31Cloris and Églée of verse 104 are the cup-bearers in Voltaire’s reimagining of a Horatian symposium, and their names appear elsewhere in works by Ovid, Horace and Virgil, lending credence to the idea that Voltaire was intending to make an explicit nod to the classical world at this point.
as Voltaire clearly does in the luxury debate, against the veneration of ancient societies and in favour of hedonistic, pleasure-driven principles thought to be very modern, serves to highlight the hypocrisy of the arguments which decried luxury as morally corrupting. Instead, the relative advancement and sophistication, in Voltaire’s eyes at least, of this particular group of ‘modern’ ancients serves to prove his suggestion that there are natural desires and impulses which are common to humans throughout history. It is important to recognise, of course, that Voltaire does still understand that his own modern age of sumptuous luxury and refinement is the result of development, cultural and natural – he himself makes the comparison between nature as ‘enfant’ in the time of primitive Adam and Eve and as ‘sage’ in his own age – but this does nothing to detract from his underlying argument: that Nature is law. This has huge relevance to his arguments on luxury, since the common and natural human desire for pleasure, both material and sensual, is enough proof for Voltaire that there can be no harm and no vice in its pursuit.
Analysis of vocal signals for the detection of vocal tract diseases

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Bachelor thesis summary

Abstract: An algorithm for the detection of vocal tract diseases is presented. Our algorithm fetches some parameters from the vocal signal ($F_0$, Jitter, Shimmer and NHR) and in this work an overview of these parameters is presented. The most important parameter regarding human voice is probably the fundamental frequency $F_0$ that denotes the frequency of the vibration of the vocal folds. The estimation of this parameter constitutes the bulk of our work as we present an optimization of the popular algorithm YIN for finding $F_0$. In general the chosen parameters give insight about the periodicity of a signal. Our most important contribution is an alternative way to compute the autocorrelation function which is an important building block of the YIN algorithm.

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Introduction

Voice is the sound emitted by a human being when speaking, laughing, screaming etc. and it is very important for everyday life as it is a form of expression. We tend to underestimate the performance degradations of our voice, as we are used to tie them to common causes like cold and fatigue, but such alterations of the voice, also known as dysphonia, can be expressions of diseases such as malignant neoplasms (better known as tumors) of the vocal tract or larynx. Medicine has made big advancements, but early diagnosis is vital in order to have better chances in treating tumoral diseases ([1–3]). We need to study some strategies to achieve an early diagnosis without the constraint of a doctor’s presence; a possible solution is the diagnosis assisted by an algorithm-driven analysis of data.

This thesis contributes to the development and implementation of a signal processing algorithm that can detect, with good probability, dysphonia from the vocal signal. The algorithm builds upon medical studies ([1–6]) that promote a quantitative approach for making a diagnosis from the patient’s voice. In this way, the patient has the means for a quick diagnosis of her voice and then, in case signs of disease are found, she can go to the doctor for a more detailed evaluation.

Algorithm

In the first section, we described the problem and proposed a solution that relies on a quantitative approach. Our algorithm fetches from the vocal signal some voice parameters that are afterwards inspected for an estimate of the presence of diseases of the vocal tract. We have chosen the parameters to use by analysing which ones were used in the live clinical setting and that have been accepted by the medical community ([1–3, 5, 6]). The parameters chosen are $F_0$ (fundamental frequency), Jitter, Shimmer and Noise-To-Harmonics ratio.

The algorithm takes as input a vocal signal obtained from the patient’s voice. It is sufficient for the patient to pronounce a vowel because it is a periodic sound, as opposed to consonants that are aperiodic (or more simply noise). For our purposes the pronunciation of the vowel $a$ is sufficient.

In this section we first present the chosen voice parameters outlining the information they give us and how they can be retrieved with a look on efficiency, then we give a practical implementation of a classifier built on top of the chosen parameters.
Voice Parameters

A patient has a healthy voice if he is able to emit a sound, so the question now is: what differentiates a sound from noise? More simply a sound is periodic, noise is aperiodic, hence a vowel is a sound while a consonant is noise; this is why it is enough to challenge the patient in pronouncing a vowel. Keep in mind that voice is characterized by its inherent non-stationarity: if you repeat the same sentence twice and record both the attempts you would get two different signals.

We chose the parameters given their reliability in a clinical setting as outlined by medical literature. What makes a parameter reliable for the assessment of the voice? Roughly, it should give an estimate of the periodicity of the underlying vocal signal. As mentioned at the beginning of the section the chosen parameters are $F_0$, Jitter, Shimmer and NHR.

$F_0$ tells us the frequency at which the vocal folds vibrate. A quick way to picture that is to think of vocal folds as a rope, adult men’s vocal folds are long and thick, adult women’s vocal folds are long and thin and babies’ vocal folds are short and thin, so we would expect the babies’ vocal folds to vibrate more, and women’s vocal folds to vibrate less than babies’ and more than men’s. So for example if the vocal folds of a man vibrate more than is to be expected in relation of their length and thickness, this could be due to an erosion of the volume of the vocal folds, which for instance can happen in case of tumoral diseases.

Jitter tells us how much $F_0$ varies in time. Ideally, $F_0$ should be quasi-constant, it cannot be constant because of non-stationarity of the voice. Jitter gives insights to the doctor about the behaviour of vocal folds without the need of an endoscopic investigation.

Shimmer measures the perturbation in height of a signal. A healthy voice should not perturbate much.

NHR measures the amount of energy in the periodic and aperiodic components of the vocal signal, a sounded signal possesses more energy in the periodic component and very little in the aperiodic one; viceversa a noisy signal contains more energy in the aperiodic component and little in the periodic one.

In the next section we will give more details about each one of the parameters. We strive to give the intuition behind each one of the parameters although we will be a bit technical in the next section about $F_0$ but we feel that the general reader should be able to get the overall picture.
**F₀: Fundamental Frequency**

F₀ is the frequency of the vibration of the vocal folds, also known as *pitch frequency*. The operation of keeping track of F₀ in the various time instants of the vocal signal is known as *pitch tracking*. An algorithm of pitch tracking, by examining a signal window of fixed length W, finds the fundamental period T₀ from which we can obtain F₀. A signal can span many windows of length W, thus we define the F₀ of the whole signal to be the average of the F₀ of every window.

In the literature there is a broad range of algorithms for this task ([7–9]): we chose the *YIN Algorithm* ([8]) as it is regarded for both its low error rate and its simplicity ([8, 10, 11]).

**YIN**

Let’s start with sparkeling some intuition about the task of finding a period of a simple sequence like [1, 2, 3, 1, 2, 3]:

We can easily find that the period of the sequence [1, 2, 3, 1, 2, 3] is 3, because the sequence repeats after the 3rd element of the sequence. We now need a programmatic way to find this period. Look at what happens if we compare the original signal (in blue) with a lagged version of the same signal (in red, τ will denote the lag). The y-axis represents the value of the signal while the x-axis denotes the time. Also note that in order to find a period between 1 and T at least 2T samples are needed.
Notice that the delayed signal with $\tau = 3$ perfectly matches the original signal so an approach to find the period of a signal could be to find the $\tau$ which makes the subtraction of the original signal with the lagged signal resulting in a zero signal.

The above intuition is exploited by the YIN algorithm. Basically the YIN algorithm finds a delayed signal that most closely matches the source signal. The main building block of the YIN algorithm is the \textit{Difference Function}:

\begin{equation}
  d_t(\tau) = \sum_{j=1}^{W} (x_j - x_{j+\tau})^2,
\end{equation}

where

- $x_i \leftarrow$ is the $i$-th sample of the signal,
- $t \leftarrow$ is the beginning of the signal window,
- $W \leftarrow$ is the length of the signal window,
- $\tau \leftarrow$ is the time lag, $\tau \in [0, W-1]$.

The fundamental period $T_0$ can be obtained by finding the smallest lag $\tau$ at which $d_t(\tau)$ equals zero. We are exploiting the observation that the original signal matches with the delayed signal with lag $\tau$. While the difference function is very appealing it has a quadratic complexity and thus it is not very efficient; the author of YIN rephrases the difference function using the autocorrelation function.
The author of the YIN algorithm defines the autocorrelation function (also denoted in literature as $ACF$):

$$r_t(\tau) = \sum_{j=t}^{t+W} x_j x_{j+\tau}. \quad (2)$$

The autocorrelation function measures the correlation of the original signal with the same signal delayed by some lag $\tau$ delay. We can then express the difference function as a function of autocorrelation in this way:

$$d_t(\tau) = r_t(0) + r_{t+\tau}(0) - 2r_t(\tau). \quad (3)$$

The benefit of recasting the difference function as a function of autocorrelation is that we can pre-compute the autocorrelation (2) at all the lags of the signal window because it depends solely on the parameter $t$ (beginning of the time signal), which is more efficient compared to the evaluation of the difference function (1). A problem arises with $r_{t+\tau}(0)$ because it depends also on $\tau$, meaning that we cannot precompute it. We know that the autocorrelation at zero lag is the sum of the square of every sample and as such we can exploit this behaviour and calculate it recursively as follows:

$$r_{t+\tau}(0) = r_{t+\tau-1}(0) - (x_{t+\tau-1})^2 + (x_{t+\tau+W})^2.$$

The main bottleneck of the YIN algorithm is the dependence on the ACF (2) function that has complexity $O(n^2)$, thus we propose below an optimization to improve the computation of the ACF (2) to a more appealing $O(n \log(n^2) + n^2)$. In the field of digital signal processing, the classical ACF is defined as:

$$r'_t(\tau) = \int_{-\infty}^{+\infty} x_j x_{j+\tau} dj. \quad (4)$$

And given that we do not operate in a continuous domain we are more interested in the following discrete counterpart:

$$r'_t(\tau) = \sum_{j=t}^{t+W-\tau} x_j x_{j+\tau}. \quad (5)$$

The function (5) differs from (2), as it takes into account for ascending lags a decreasing number of samples by making it tapered at higher lags. We exploit the Wiener-Khinchin theorem that allows us to calculate the classical ACF through
FFT (Fast Fourier Transform) for which there exist algorithms with complexity at $O(n \log(n))$ such as ([12, 13]).

The Wiener-Khinchin theorem states that the modulo of the Fourier transform of a signal is equivalent to the Fourier transform of the classical ACF (5) of the signal itself. We are then interested in investigating if we are able to re-express the ACF (2) in terms of the classical ACF (5) that can be computed in an efficient way, as follows:

$$ r_t(\tau) = \sum_{j=t}^{t+2W-\tau} x_j x_{j+\tau} - \sum_{j=t+W+1}^{t+2W-\tau} x_j x_{j+\tau}. $$

In layman terms, if we calculate the classical ACF of both the sequences $(x_t, ..., x_{t+2W})$ and $(x_{t+W+1}, ..., x_{t+2W})$, we can obtain the ACF (2) by subtracting them. The eagle-eyed reader will notice that the sequences $(x_t, ..., x_{t+2W})$ and $(x_{t+W+1}, ..., x_{t+2W})$ differ in length, just get rid of the last $W$ terms in the first sequence $(x_t, ..., x_{t+2W})$ as they are not needed.

We now continue the discussion about the difference function. The author of the YIN algorithm ([8]) proposes to replace the difference function (1) with the normalized difference function:

$$ d'_t(\tau) = \begin{cases} 1 & \tau = 0 \\ \frac{d_t(\tau)}{(1/\tau) \sum_{j=1}^{\tau} d_t(j)} & \tau \neq 0 \end{cases} \quad (6) $$

The normalized difference function (6) falls below 1 when $d'_t(\tau)$ is below average, which happens when we are in proximity of the fundamental period. This is an intriguing feature as we know that speech is not a stationary signal, which makes it very unlikely to find $\tau$ where $d'_t$ equals zero in speech.

A period can be found by finding the smallest $\tau$ which satisfies the following:

$$ \min_{\tau} d'_t(\tau) \leq \theta. $$

The author of the YIN found the threshold $\theta = 0.15$ to be robust enough for the detection of the fundamental period ([8]). We noted, in our experiments, that a better period can be found by finding a neighbour $\phi$ of $\tau$ that satisfies $d'_t(\phi) \leq d'_t(\tau)$. The search is done for descending values of $d'_t$.

Everything we described up to now works if the fundamental frequency is a multiple of the sampling frequency; we can fix that by doing a parabolic interpolation between $d'_t(T_0)$ and its neighbours. As we are dealing with human
voices we can limit the search window to the following:

$$F_{0,\text{human}} \in [50, 550]$$.

The length of the window signal, $W$, to be analysed, has to be big enough to fit the lowest $F_0$ allowed.

### Jitter & Shimmer

A consequence of the non-stationarity of speech is the variability of the fundamental frequency in various time instants; healthy voices have a quasi-steady fundamental frequency ([14]). Jitter is a measure of the perturbation of the fundamental frequency ([4, 15]).

Shimmer is a measure of the perturbation of the peak-to-peak amplitude. The idea is given a signal split in many windows, we compute the peak-to-peak amplitude of each window and then compute how much it perturbs along the signal.

The peak-to-amplitude is simply the overall range spanning between the minimum and the maximum value (look at the red arrow in the below image) in a window of signal. We aim for the peak-to-peak amplitude to be constant in all the windows of signal but voice is non-stationary so in general healthy voices have a somewhat limited perturbation of the peak-to-peak amplitude.

### NHR: Noise-To-Harmonics Ratio

The Noise-To-Harmonics ratio (also known as NHR) is a common measure that quantifies the energy of the noise compared to that of the sound. In this section we will shy from the technical details behind this parameter and instead we will
proceed in explaining the most common approach used by physician to assess voice diseases from the spectrogram.

A spectrogram is a visual representation of the amount of energy of the signal in relation with time and frequency. Our line of attack in detecting diseases from the vocal signal has an equivalent explanation in the frequency domain, in fact clinicians given a spectrogram of a pronounced vowel can already tell whether the voice is healthy or not. In below is a spectrogram.

The first black line at the bottom is the $F_0$ frequency while the repeating lines are the harmonics which are multiple of the fundamental frequency. What is in the middle between the harmonics is the noise. In the above example you can see how between the harmonics there is zero noise meaning that the patient has a healthy voice. The idea is that if there is zero or very little energy in the middle of the harmonics the patient has a healthy voice.

The NHR parameter is a measure of the ratio between the energy present in the harmonics and the overall noise of the signal, it gives us a programmatic way to do the process we described before.

In below you find the spectrogram of an adult woman with a pathological voice.
You can see how the harmonics at some point are not distinguishable because of the presence of too much noise, in fact the patient has a tumoral disease in the vocal tract.

The obvious question is why we do not use spectrograms for tackling the stated problem? As appealing are the spectrograms they are more expensive from a computation standpoint to operate and instead we aim to operate directly on the signal.

**Classifier**

Our classifier is a pretty simple one; given that we build on top of medical publications we simply check if all the parameters fall in the normal range outlined in the medical publications. In this section we present the ranges of normality of these parameters as outlined by the medical publications.

**Threshold of voice parameters**

We have identified the voice parameters of interest, and we have studied approaches to obtain them efficiently. All we have left to do is to analyse how to detect dysphonia from the values of each parameter. In various medical publications, there are different proposals for the thresholds for each parameter. We have chosen the threshold for each parameter based on how they are used in a clinical setting. We summarize the threshold of each parameter in Table 1 and
Table 1: Range of each parameter of Healthy voices. If no minimum is given there is no lower bound.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>MIN</th>
<th>MAX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jitter ([5, 14])</td>
<td>0.2</td>
<td>1.0</td>
</tr>
<tr>
<td>Shimmer ([7])</td>
<td></td>
<td>3.810</td>
</tr>
<tr>
<td>NHR ([5, 14])</td>
<td></td>
<td>0.03</td>
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Table 2: $F_0$ range of Healthy voices ([2])

<table>
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<tr>
<th>Age</th>
<th>FEMALE</th>
<th>MALE</th>
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<tr>
<td>Infant</td>
<td>440</td>
<td>550</td>
</tr>
<tr>
<td>3</td>
<td>255</td>
<td>360</td>
</tr>
<tr>
<td>8</td>
<td>215</td>
<td>300</td>
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<td>12</td>
<td>200</td>
<td>280</td>
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<td>15</td>
<td>185</td>
<td>260</td>
</tr>
<tr>
<td>Adults</td>
<td>175</td>
<td>245</td>
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The set of possible outputs of the classifier is: \{Pathological, Healthy\}. We denote the voice as Healthy if all of the voice parameters satisfy the threshold criteria presented above; otherwise, it is Pathological.

**Algorithm**

All of the portions of the analyzed vocal signal have to be voiced, so some preprocessing is suggested in order to filter away the unvoiced portions of the signal. A quick approach for voicing detection is to regard as voiced a portion of the signal of which we are able to find a period. We suggest, in order to better automate the task, to perform the analysis solely on the longest voiced portion of the signal.

Our algorithm fetches in this order the parameters from the vocal signal $F_0$, Jitter, Shimmer and NHR and then checks if the obtained parameters fall in the threshold of normality reported before.
Conclusions

Experimental results

We implemented the algorithm in the F# programming language as it empowered the functional paradigm. We have felt that it would have been a good option because it would allow us to focus more on the logic of the problem. We made use of the NAudio library for the reading of the sound files.

We have tested the algorithm on a dataset of patient voice recordings with their known diagnosis. The dataset has been provided to us by an ETN (Ear-Nose-Throat) specialist at the Università degli Studi Magna Grecia di Catanzaro. We have analyzed the $F_0$, Jitter, Shimmer and NHR parameters for four patients (see below) from the data that was provided to us and have compared them to the doctors’ diagnoses.

For demonstration purposes, we report below the result of the algorithm being ran on a sample of patient voices. We have highlighted the parameters which are out of the norm and which can signal the possible presence of pathology.

### Patient 1

$F_0$ \[ 140.145 \text{ Hz} \]

$\text{Jitter}$ \[ 0.635 \]

$\text{Shimmer}$ \[ 2.644 \]

$\text{NHR}$ \[ 0.021802 \]

Healthy voice of an adult male. We can see clearly that each parameter is within the norm.

### Patient 2

$F_0$ \[ 207.650 \text{ Hz} \]

$\text{Jitter}$ \[ 0.42334 \]

$\text{Shimmer}$ \[ 1.76821 \]

$\text{NHR}$ \[ 0.01539 \]

Healthy voice of an adult woman.
Patient 3

Voice of a woman with evidence of a tumor that eroded the volume of the vocal folds. The algorithm reports all of the voice parameters to be out of norm when compared to the measure of $F_0$ for healthy women, which provides an indication of a Pathological state.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
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<tr>
<td>$F_0$</td>
<td>241.727 Hz</td>
</tr>
<tr>
<td>Jitter</td>
<td>9.2155</td>
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<td>Shimmer</td>
<td>4.40331</td>
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<td>0.25805</td>
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Patient 4

Voice of a young male patient with little dysphonia due to the presence of catarrh in his throat, Pathological.

<table>
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<th>Parameter</th>
<th>Value</th>
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<tr>
<td>$F_0$</td>
<td>133.621 Hz</td>
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<tr>
<td>Jitter</td>
<td>0.4629</td>
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<td>Shimmer</td>
<td>3.890282</td>
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<td>NHR</td>
<td>0.2372</td>
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We found the algorithm to be working with a good number of voices, but further investigation in real clinical scenarios is needed in order to better prove its robustness. This thesis highlights the benefits of harnessing the power of computer science in the field of medicine, and the impact it can have on improving the overall levels of diagnosis in that field.

Future developments

We are planning to develop a web application that uses the WebAudio API ([16]) for voice recording, bundled with an implementation of the algorithm in JavaScript.

Our F# implementation is single-threaded and would benefit from some parallelization, via OpenCL ([17]), and some low-level optimization, such as the usage of vectorized instructions (SIMD).

While our work contributes to the line of research of quantitative assessment
based methods, the classifier proposed is indeed naive and thus a potential new line of work could include the use of deep learning inspired approaches to learn new features from the signal and investigate whether they outperform our chosen parameters.

References


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<td>MSc Pharmacology</td>
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Maddox  Zoe  MSt International Human Rights Law
Mahendran  Aravindh  DPhil Engineering Science
Malik  Swati  MSt International Human Rights Law
Martin  Richard  DPhil Criminology
Master  Maureen  MSt International Human Rights Law
Matharu  James  DPhil Philosophy
Mathijssen§†  Arnold  DPhil Theoretical Physics
Matore†  Daniel  DPhil English
McCunn Ayowande  DPhil Law
McDonald†  Elle  DPhil Mathematics
McGalliard  Rachel  BMBCH
McMullan  Elizabeth  BCL
Meagher  Caitlin  DPhil Anthropology
Mhlomi  Vuyane  DPhil Obstetrics & Gynaecology
Milaninia  Nema  MSt International Human Rights Law
Millar†  Richard  DPhil Atmospheric, Oceanic & Planetary Physics
Miller  Paul  DPhil Clinical Medicine
Milligan  Nicole  DPhil Zoology
Mok  Robert  DPhil Experimental Psychology
Moore  Angela  MSt International Human Rights Law
Muhammed  Kinan  DPhil Clinical Neurosciences
Mumba  Karen  MPP
Munro  Lawrence  MSc Software Engineering
Nagbe  Cornelius  MSt International Human Rights Law
Nath†  Arup  DPhil Pharmacology
Neagu  Mariela  DPhil Education
Needham  Jessica  DPhil Plant Sciences
Nelson†  Peter  DPhil Engineering Science
Newell  Gabrielle  MSc Comparative Social Policy
Noble  Ben  DPhil Politics
Norman†  Sophie  DPhil Cardiovascular Science (BHF)
Novotny  David  DPhil Engineering Science
Nussenbaum  Kate  MSc (Res) Experimental Psychology
Ogawa  Masayo  MSt International Human Rights Law
Ohlson  Tanja  DPhil Management Studies
Oki  Takashi  DPhil Philosophy
Ostasz  Wiktor  DPhil History
Otter§  Nina L.  DPhil Mathematics
Parameswaran  Sasha  MPhil Economics
Parsons  Jack  DPhil Interdisciplinary Bioscience (BBSRC DTP)
Pearson-Jones  Thomas  BMBCH
Pease  Gareth  DPhil Engineering Science
Pembroke  William  DPhil Physiology, Anatomy and Genetics
Peters  Meindert E.  MPhil Modern Languages
Petitet§  Pierre  DPhil Clinical Neurosciences
Pilucik  Dariusz  MSc Psychological Research
Pinkney  Alice  DPhil Cardiovascular Science (BHF)
Plaschinsky  George  MPP
Podlaski  William F.  DPhil Physiology, Anatomy and Genetics
<table>
<thead>
<tr>
<th>Name</th>
<th>Courses/Departments</th>
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<tr>
<td>Poortvliet</td>
<td>Marjolein DPhil Comparative Philology &amp; General Linguistics</td>
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<td>Poulou</td>
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<td>Pryce</td>
<td>Rhys DPhil Structural Biology</td>
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<td>Raby</td>
<td>Jonathan BMBCH</td>
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<td>Raeder</td>
<td>Sophie-Marie DPhil Psychiatry</td>
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<td>Rahn</td>
<td>Rudi DPhil Theoretical Physics</td>
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<td>Rammaya</td>
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<tr>
<td>Ratan</td>
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<td>Richert</td>
<td>Sabine DPhil Inorganic Chemistry</td>
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<td>Rifkin-Zybutz</td>
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<td>Roberts</td>
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<td>Rodgers McClure</td>
<td>Miriam DPhil Law</td>
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<td>Rossi</td>
<td>Lorenzo DPhil Philosophy</td>
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<td>Saleem</td>
<td>Kashif MSc (Res) Organic Chemistry</td>
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<td>Salih</td>
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<td>Salisbury</td>
<td>Ingrid DPhil Engineering Science</td>
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<td>Sanghani</td>
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<tr>
<td>Sheppard</td>
<td>Dean DPhil Physical &amp; Theoretical Chemistry</td>
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<tr>
<td>Simoglou Karali</td>
<td>Christina DPhil Oncology</td>
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<td>Siritanaratkul</td>
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<td>Smith</td>
<td>Robin DPhil Anthropology</td>
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<td>Sorochkin</td>
<td>Yury M. DPhil Medieval and Modern Languages</td>
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<tr>
<td>Soza Larrain</td>
<td>Jose Felipe MPhil Greek and/or Roman History</td>
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<tr>
<td>Stefaniak</td>
<td>Jakub DPhil Systems Approaches to Biomedical Science</td>
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<td>Stewart</td>
<td>Thomas A. BMBCH</td>
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<td>Stoeckmann</td>
<td>Jan DPhil History</td>
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<td>Stoiber</td>
<td>Adrianna MPhil Music (Performance)</td>
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<td>Straker</td>
<td>Rob DPhil Organic Chemistry</td>
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<tr>
<td>Sweetwood</td>
<td>Dylan MSt English (1900 - present)</td>
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<td>Tafadar</td>
<td>Sultana R. MSt International Human Rights Law</td>
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<tr>
<td>Tanner</td>
<td>Michael A. DPhil Engineering Science</td>
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<tr>
<td>Tarkowski</td>
<td>Mateusz DPhil Computer Science</td>
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<tr>
<td>Tatton</td>
<td>Jennifer PGCE - Geography</td>
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<tr>
<td>Taylor</td>
<td>Lewis DPhil Cardiovascular Science (BHF)</td>
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<td>Oliver DPhil Engineering Science</td>
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<td>Taylor</td>
<td>Paul DPhil the Systems Biology Doctoral Training Centre</td>
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<td>Taylor</td>
<td>Henry MSc Pharmacology</td>
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<tr>
<td>Tazoe</td>
<td>Kantaro MSc (Res) Inorganic Chemistry</td>
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<tr>
<td>Thill</td>
<td>Patrick DPhil Engineering Science</td>
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</tbody>
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104  The New Collection

Thirlwall Kate  MSc Learning & Teaching
Thygesen Peter  DPhil Inorganic Chemistry
Tittrea Vickram  DPhil Medical Sciences
Tong Rudi  DPhil Pharmacology
Touzet Chloe  DPhil Social Policy
Urban Palina  DPhil Medieval and Modern Languages
Ursua Evalyn G.  MS St International Human Rights Law
van Dijk Jasper J.  DPhil Economics
Varendh-Mansson Cecilia  MBA
von Dreusche Maxime  Diploma in Legal Studies
Wade Timothy  MPhil British and European History
Wahby Hisham  MS St International Human Rights Law
Wang Caixiao  Certificate in Diplomatic Studies
Wensley Katherine E.  BMBCH
Whelan Alexandra  MPhil Law
Whiston Holly  MS St English (1550-1700)
White Alexander  MSc (Res) Organic Chemistry
Wickramarachchi Chandu  BMBCH
Wilentz Grace  MS St International Human Rights Law
Willms Eduard  DPhil Physiology, Anatomy and Genetics
Withers Dan  DPhil Engineering Science
Wong Pok Chi Thomas  PGCE - Physics
Woolley Helen  DPhil Education
Wragg Harriet  DPhil English
Wulfmeier Markus R.  DPhil Engineering Science
Yao Songqiao  MBA
Yerima Sarah  MPhil Politics: Comparative Government
Yohannes Alai  MSc Software Engineering
Young Toby  DPhil Music
Zeng Andy  DPhil Inorganic Chemistry
Zemobi Luca  DPhil History
Zhang Xinglong  MSc Theoretical and Computational Chemistry (CDT)
Zhao Rebecca  BMBCH
Zhou Charlie  BMBCH
Zhou Yuxiao  MPP
Zimmer David  DPhil Organic Chemistry
Zwetsloot Remco  MPhil International Relations
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LONG ARTICLES: Max 4000 words

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