

Contents

Islam and Politics: the Case of the Islamic State (<i>Mehdi Shokri</i>).....	3
Nature or Nurture – Will Epigenomics Solve the Dilemma? (<i>Beata Płonka</i>).....	13
Wars and Conflicts are Only Randomly Connected with Religion and Religious Beliefs. An Outline of Historical, Cognitive, and Evolutionary Approach (<i>Konrad Szocik</i>).....	37
The Uniqueness and Continuing Relevance of Gabriel Marcel (<i>Brendan Sweetman, Tudor Petcu</i>).....	47

Islam and Politics: the Case of the Islamic State

Mehdi Shokri

Department of Politics and Department of Philosophy,
Free University of Berlin,
Fellow of the Konrad-Adenauer-Foundation,
Germany

e-mail: Shokri.Phil@gmail.com

Abstract:

This paper assesses the fundamental relation between the Islamic-political movements and establishment of the Islamic law (*Shari'a*). I argue against the critiques of western foreign policy and show that the Islamic State (*Caliphate*) is both a result of the historical process of the people of a region and the extreme interpretation of the text and *Sunna* which emphasizes on the traditional *Sharia* law and the concept of *Jihad* by fortifying political Islam *qua* militant Islam. I argue that the Islamic revival aims to a certain political order which threatens the world security and peace. Moreover, I argue that the structural violation of Human Rights is rooted in the traditional concept of Islamic law or *Sharia*, which obtains its immunity by an illegitimate power. This traditional Islamic law is the inalienable character of authoritarian/totalitarian regimes. This paper is based on the assumption that the extreme ideological/theoretical interpretation implies the empirical objectives of Militant Islamic community with or without any external influential elements. In this sense, we can address the question: how different interpretations and traditions in executing the Islamic *Sharia* give the social and political grounds a seed for the emergence of violence and terrorism. At the end, this paper ends with a propose which emphasizes on the role of international cooperation to find a resolution and also on the education as a long-term plan to defeat extremism and terrorism.

Keywords: Terrorism, Sharia law, Islamic state, political power, education

1. Introduction

The rivalries of political powers have always been backed up by certain ideologies and ideas. Some are fair and some are unfair; some are for democracy and some are for dictatorship; some are for human rights, freedom and dignity and some are for enslavement. Muslims are not out of this fighting circle. So when we are talking about extremism, terrorism, *Salafism*, and *Jihadism*, we have to consider some points. First, not all Muslims are terrorists. Second, we must know how 'normal' a terrorist, Islamist, *Salafist* or *Jihadist* can seem to be. For them, the act of *Jihad* (war)

and terror, although is rooted in their belief, seems an entirely rational choice [9]. The *Jihad* is regarded a pious, selfless, and holy act that mostly promoted by Sunni Islam.

What we today call as an act of terror is any abhorrent act of violence against individuals or states. Yet, terrorism is the widely accepted contemporary political term. Thus, terrorism is an abhorrent act of violence which is used and directed to persuade of particular political aim which cannot be achieved without violence. However, we have to know that the terrorism, unlike its French origin which promotes the positive connotation, became a term associated with the brutality, humanistic crime. It is at this point that we realize no more critiques against the western politics which advocate the idea of the monopoly of the notion of terrorism by western is logically defensible since the notion of terrorism is diverged from the notion of legitimate political act of aggression in both aims and motives [25]. This abhorrent act which was limited to the aim of assassination can be traced back in the early Islam, where it was the practice of political opponents. Yet, today it is turned to the contemporary operational scenarios where terrorism could persist for years and encompass the death of thousands of people [9, p.11]. In this sense, terrorism, *Salafism*, and *Jihadism* turned to be a threat to the world security which conducted mostly by non-state actors and non-governmental processes and organizations. For instance, the terrorist attacks on September 11, 2001, redefine terrorism for the West which basically is *Jihad* for the terrorists.

By a general usage of the term ‘terrorism’ we can see its connection with the concept of *Jihad* in which the type of violence can clearly be found in terrorism, *Salafism*, and *Jihadism* distinct the phenomenon of Theo-Political violence that it is [25]:

Table 1. Frequency of definitional element in definition of Terrorism [26, pp.5-6].

<i>Element</i>	<i>Frequency (%)</i>
1 Violence, force	83.5
2 Political	65
3 Fear, terror emphasized	51
4 Threat	47
5 (Psychological) effects and (anticipated) reaction	41.5
6 Victim-target differentiation	37.5
7 Purposive, planned, systematically organized action	32

By knowing the subgroups of the concept of terrorism and by distinguishing the concept of terrorism from other forms of crime and irregular warfare, we come to appreciate that terror and *Jihad* are the identical political concepts.

Both terror and *Jihad* are:

- ineluctably political in aim and motives;
- violent or the threaten violence;
- design not only to the brutal act of destruction but also to have far-reaching psychological repercussions beyond the immediate victims or targets;
- conducted either by an organization with an identifiable chain of command or by conspiratorial cell instructor whose members are individuals directed by ideological aims.

2. The Concept of Law and Militant Politics

The continuance of the emergence of Islamic militant communities and political systems and individual/states terrorist attacks by Islamists, *Salafists*, and *Jihadists* are inviting us to ask what makes them violent, illegal and illegitimate? [28].

The first obvious reason is the natural greed for power, but why they act brutally and irrationally? In this sense, we must have a more accurate approach. On the one hand, the link between *Sharia* (the Islamic Law) and its sources, e.g. the text, and on the other hand, the link

between the *Sharia* and the concept of political power would be the clues to answer this question. Furthermore, they can help us in an assessment to see how Muslims understand of the political world.

To the extent that we understand it, Islam has always been a political religion. This is on the contrary to our modern understanding of Christianity and politics. The hierarchical and militant political power has been always an inalienable character of traditional Islamic law. This is due to the nature of some rules which cannot be fulfilled without oppression, and more importantly, is due to the fact that Islamic political power demanding a hierarchical power relation. Though it is not confined to any notion of legality, the holistic picture of traditional *Sharia* is promoting the totalitarian idea of authoritarian/totalitarian power structure [11, p.15], [21]. It embraces all spectrums of a community. This form of authoritarianism is the core essence of the ‘political Islam’ which is known as ‘Islamism’. The traditional concept of politics in Islam requires the expansion of Islam to obtain its immunity and fortify its political power. Yet, such expansion, as it is common for all authoritarian/totalitarian power structures, is not possible without invasion and violence [25]. This is where the concept of traditional Islamic expansion inevitably presupposed the idea of *Jihad* (war) [6, p.3], [14].

3. Hard Lesson from Religion and Politics

The traditional *Sharia* is a despotic radical Islamic law and a political framework which is the vital instrument for the existence of the current forms of radical Islamic power relation and its aim, i.e. an Islamic State. In other words, the Islamic States and, finally, Islamic World are the means and the aims of the traditional *Sharia* respectively [16]. The reason to that is due to the fact that *Sharia* is the mixture of strict individual and political laws. Thus, only in a hierarchical World, in which the traditional *Sharia* presupposed, it can gain power voraciously, rules effectively, and it can be preserved. To that end, *Sharia* needs two important instruments: militant communities and militant authorities.

The first instrument the traditional *Sharia* is the militant power-oriented communities. These communities produce *Wahabist*, *Jihadists*, *Salafists*, and *Islamists* whose main goal is to implement the goals of *dar al-Harb* (House of War). *Dar al-Harb* as one of the critical element of traditional ‘political Islam’ aims at *Jihad* to make the world an Islamic world [17]. The source of *Jihad*, basically, emphasizes on those verses of *Quran* that suggest *Jihad* (war). Yet, they ignore the historical context in which the verses referring to. The second instrument of the traditional *Sharia* is the authoritarian/totalitarian power structure with their oppressive legal system. This sort of *Sharia* law is the result of the interpretation of the verses of *Quran* along with the tradition, and Hadith – the sayings of the early Islamic leaders. In this sense, the traditional *Sharia* suggests the establishment of a centralized hierarchical political power in which the monopoly of power and law is the absolute and arbitrary rule of a man [11]. Let us call this Islamic political system the *Caliphate*. In this sense, we can see that Islamism, terrorism, *Salafism*, and *Jihadism* is but lack a more precise, concert, and truly rational explanatory definition of the Islam and politics.

Hitherto, we can see that the lack of such truly rational explanatory definition directly helps to form a political regime as the *Caliphate* which its existence is only possible if it can establish a hierarchical Islamic power relation under the despotic *Sharia*’s umbrella. Where *Dar al-Harb*, which manages the politics of *Jihad*, comprises a framework for a systematical foreign policy toward the rest of the world as a battlefield, the traditional *Sharia* comprises the domestic policy of the Islamic land. The main aim is to try to maintain the hierarchical system under the privilege of one person who is known as *Imam* or *Caliph*. Moreover, we can also see that the aim of the traditional *Sharia* is to centralize an Islamic political power internal homogeneity. However, it is obvious that its illegitimacy leads to the oppression and invasion. Both of these call for a militant power to obtain the immunity of the system – the political Islamic system – and its power holders: the Amirs, Molas, Mollas, Caliphs, and Imams.

According to the ‘political Islam’, the traditional *Sharia* law presupposed the *Jihad* as its critical essence. Hence, it allows that *Wahabists*, *Jihadists*, *Salafists*, and *Islamists* kill anybody, disrespect any culture, alight any house, and invade any state that stands against the Islamic power-oriented movements and its aim, that is to overcome the world and to make it as a global Islamic state [6]. The violation of human rights, inequality between the Muslims and the rest, the privilege in rights of the Muslims over the rest, and the emphasis on the militant expansion of Islam in other states and communities promoted by traditional *Sharia* law advocates an illegitimate authoritative political system ideology: Islamism and *Jihadism* [3]. They have all one common point and that is *Jihad*. *Jihad* and the hierarchical Islamic power relation are the cornerstones of the global idea of the ‘political Islam’ *qua* militant Islam and its domestic policy, respectively. However, from the stands of western politics, the cornerstone of the traditional ‘political Islam’ is the ground for its illegitimacy, too.

In the last years, the emergence of a terrorist group as the Islamic State (ISIL) is an obvious example that illustrates both the idea of *Jihad* and the traditional idea of *Sharia* law under the ‘political Islam’. In their idea, Islam and politics are inseparable. Such approach implies that ‘not only Islam and *Sharia* law should rule over the social and political sphere but also it should rule over the private sphere’ [3, p. 260]. This requires a hierarchical Islamic power relation which presupposed the idea of the ‘political Islam’. The ‘political Islam’ is highly related to the link between the role of the traditional *Sharia* and *Jihad*, which aim to shape an Islamic world order [17]. To this aim, the Islamic State e.g. ISIL seeks to destroy everything that is not itself [4]. We cannot argue enough that how such idea is hazardous for a healthy politics. The very nature of ISIL is an Islamic power oriented militant group which role by the ‘political Islam’. This core essence is illegitimate. Consequently, ISIL is relentlessly trying to last and expand its militant power. In this sense, today, ISIL is arguably the most dangerous terrorist group that threatens the world security and peace after *Al-Qaida* [22, part 6].

4. Politics of the West and the Nature of *Sharia* Law

ISIL is catalyzed by the traditional idea of Islamic political power. Since the political aim of the traditional *Sharia* is to turn the world to an authoritative Islamic state, a centralized oppressive political power seems to be the only way to reach this aim. Its current exercise of power is merely relying on the concept of ‘power over’ – only if we would use our imagination to be interpreted its violence as power [8], [15]. Its brutal violation of Human Rights and the military oppression which it imposes on the Iraqis, Kurds, and Syrian civilians are the illegitimate acts of aggression [25]. In general, not only ISIL but also the geographical expansions of the traditional rule of *Sharia* law are the matter of global security and it may be one of the great wars of our time beside communism.

To be specific about this controversial matter, when we are talking about the ‘political Islam’, Islamism, *Salafism*, and *Jihadism* our approach is only political. Here, the aim is not to rely on the theological-philosophical approach to analyze the accountability of a religion or start a discussion on the Islam, but our aim and our discussion is merely political [see also 24, p.30]. Hence, ISIL and political Islam, from the political point of view, are the threats to the world security.

To this extent, the European Union and the United State try to address this matter. Europe as one of the major international actors deploys the traditional European policy which is mostly based on a mere soft power of liberalism and long-term process of cooperation. It has been observed that this method alone cannot fully develop and protect the Human rights observation in international relations, but to some degree, it affects some minor policies of its neighbor states [10]. Europe, at some points, lost the realistic touch on the high priority threats to its security when it comes to setting the scope of its foreign policy. This may be related to its history, the era of colonialism and the wars especially the ones which took place in the twenty-century.

Yet, we can see the daily practice of the traditional *Sharia* law within the border of European Union (EU) by those who are either immigrant or have the immigration background or

recently recruited by the Muslim activists. Even in EU, whether it is due to the long tradition of liberalism or the new policies for immigration, the populations with the extreme ideologies are increasing. We can observe that the Islamists and *Jihadists* form their own groups and impose their rules over their small communities regardless of the law of EU. Moreover, these communities enjoy the liberal idea of the western in which they live since they can/are freely advertising their extreme ideologies and wish to recruit the others for their militant political aims. The most dramatic activities of the militant communities which impose the traditional *Sharia* can also be seen in England. Today, despite their infamous, we can see that they gather in different spots across the Europe, wearing a long white dress, which is the symbol of acrid *Jihad*, and advertise their extreme ideologies.

The increase of Islamic extremism in EU, besides of all, creates a backlash. This backlash is in the right-wings groups which are extreme themselves, such as Hooligan and Pegida. In this sense, even to control the activities of the right-wing, one should address the expansion of the traditional *Sharia*, Islamism, and any related trends.

While ago, this threat brought to light and the challenges that Europe must face has presented by Bruce Bawer in his book *While Europe Slept* [2]. However, along his argument, one thing is not highlighted and that is the demographical changes across the EU. Maybe, one of the reasons is due to the fact that at his time he could not see a dramatic change in the rate of immigration that mostly caused by the brutal war which is instigated by ISIL in the Middle East. We have to realize that the demographical changes could have a transformative effect. This trend can be vividly seen in England and in France. In England 5.02% of the population and in France 9.6% are Muslims. Most of them are Sunni which means that their priority is the ‘Political Islam’ and *Jihad*. Between 2000 and 2015 this demographic change also dramatically increased across the EU and after 2015, it can vividly be seen, especially in Germany since a newly-adopted immigration policy [20]. So, we have to ask that how these demographic changes affect on the West?

The increased number of terrorist attacks in EU during the past decade is one of the indicators of the demographic change, the political Islam, and *Jihad* [29]. So what could be done before the EU would be trapped in the resurrection of the rights-wings or before it would entangle with the irreparable transform? One thing should be appreciated initially, and that is if the liberal values of EU politics revoke the others, then the principles of neutrality subterfuge for a political decision. That means whether EU should decide to act against extremism – in any sense – or stay in the state of neutrality [28]. As the consequence of merely relying on the dialectic method of liberalism, the western democratic norms also would be the first victims of a militant Islamic expansion or other extreme ideologies. Here, we have to ask how long the rational-normative values can be eroded due to the practice of the *Sharia* law and politics of *Jihad* which is the ground of local and global terrorism. In other words, *Islamism* and militant Islamic intolerance are exploiting the western value of tolerance. Emphasizing on the principles of multiculturalism will gradually be ended in losing the roots of Western-Christian civilization. This trend can also be seen in how the Islamists, *Salafism* and *Jihadists* ideologies, parallel to each other, have been spreading in Europe in the last couple of decades.

5. Expansion and Reduction of Extremism

The bottom-up approach of the expansion of *Sharia* shows that the first basis of their activities in the West is the Mosques. It is their base-ground in which the seeds of the militant ideology would be expanded. On the one hand, the dramatic and parallel growth of the number of Muslims and Mosques in Europe, in contrary to U.S., and on the other hand, the restless endeavors of the Islamists to turn the old church to the Mosques [13] raise the serious concerns such as:

1. The role of Islamic syndicated around the globe,
2. The graduate expansion of Islamists and *Jihadist* ideology,

3. A comparative approach to the role of the traditional *Sharia* law in the Middle East, Europe, and North America.

From time to time, these concerns are ended in some solutions. Some temporal and some others are permanent. One of the solutions which has been presented for more than a decade ago is 'the war on terror', a term that used initially by the U.S. President, George W. Bush in his 20 September 2001 speech [1, p.19]. The U.S. government of the time saw the modern extremism and terrorism as an international issue which must be addressed immediately. A massive, and consequential, a terrorist onslaught indeed required nothing less than an equally comprehensive and far-reaching response. So, The North Atlantic Treaty Organization (NATO), the military power of the West, got into the war as the result of what the West calls it as the terrorist attacked of 9/11 while the Islamists and extremists call these acrid acts as the act of holy war (or holy *Jihad*).

Here, there are two major points: one is the partial success of the 'war on terror' was overthrown of some autocrats and dictators of the Middle East, and dismissing some major terrorist groups. If the United States left Afghanistan and Iraq prematurely, *jihadists* everywhere will be emboldened to take the battle to every place else on the earth [30]. When we look at the history of Islam and traditional *Sharia* alone, we can see that 'killing the political opponent' and terror was the main or almost only way of their politics. Even at the very beginning of their history, the era of four caliphs including Abu Bakr, Umar, Uthman, and Ali, one after another was the victims of their own tradition of terror attack. It was the same tradition of terror attack that forced Ali's dynasty to immigrate to Iran and shape *Shi'a* as a cult against Sunni. To be sure that those who follow the school of Sayyid Qutb and the similar ideology of anti-western politics know very little, if nothing, about the theo-political problem of the traditional *Sharia* and its history.

In this sense, the concept of terrorism must be respected as a serious and literal term of military and political threats of Islamism, *Salafism*, and *Jihadism*. The other point is about the concept of 'war on terror.' It seems that there has been two misunderstanding in the 'war on terror'. First, we have to distinguish between the temporal solutions for the problem of traditional law, terrorism, and politic of *Jihad* and the permanent one. Second, we have to look deeper into this matter. One of the appropriate approaches to the concept of 'war on terror' is the one from the geopolitical perspective [5]. Talking about the 'war on terror' is more complex and more controversial that it seems. From the geopolitical approach, 'war on terror' in the Middle East is not as the same as 'war on terror' in the United State. The range of potential and actual adversaries against the West thus expanded beyond Osama bin Laden, *Al-Qaida*'s leader, and the other minor groups. It also expanded beyond the basic threats of ISIL in Iraq and in Syria. Moreover, the concept of 'war on terror' cannot be reduced to the military act of the West. In other words, this war can take place in every sphere: in education, in religion, in the process of legislation, etc.

6. The Birth of New Methods

Do we learn from the past? It may be interesting to know that it is only 'the people' that are the real guardians of their values. Yet, it is more important to understand that the seed of western democracy cannot fertile in the Middle-Eastern, at least not that soon. Democracy needs a free land and 'mind' to be cultivated and the infertile ground of the Middle East is not yet ready. The Middle East politics is paved with the soil of hatred. It is the place that forgets nothing and forgives nobody. The shadow of their immortal God always speaks to them, lead them. Thus, we might first ask what we should do. To make the Middle East ready is to try to engage the local people in the international program of 'war on terror' [23].

Indeed, the United States' and NATO's missions in the Middle East, Africa, and East Europe has gained unquestionable results by their humanitarian missions, overthrowing the authoritarian/totalitarian power, and crippling the active terrorist groups. Indeed, military actions win the most in military and geographic dimensions. This is one of the reasons that president Obama calls the unilaterally ordered air strikes of August 2014 against ISIL as a 'necessary' action.

However, the military aspect of ‘war on terror’ lacks some vital elements to affect the cultural-political aspect of a state; and even sometimes causes that the militant Islamists react more harshly. More importantly, though failure to take action against terrorists such as ISIL will result in irreversible consequences, relying merely on the military aspect of ‘war on terror’ causes that the regular folks felt a sense of war against their land and against themselves. Their reaction would be offensive and skeptical about any political changes in their countries.

So what should be done more? If we want to see a real progress to defeat the terrorism, extremism, *Salafism*, and *Jihadism*, we have to consider two reforms. One should take place in the western foreign policy and the other one should take place in both the western and the Middle Eastern domestic policies. In fact, the western foreign policy should be a homogenous mixture of European and North American ones.

Moreover, such foreign policy must be flexible and sensitive. It must be flexible to know that what the West appreciate as the liberal-democratic norms may not be appreciated or protected or even work in Iraq or in any Middle-Eastern countries. It also must be sensitive to take any necessary measure to defend the Western values against the extremism, Islamism, *Salafism*, and *Jihadism*. Moreover, the mixture of the methods means that the ‘war on terror’ should also be defined as the relentless long-term efforts on cultural, educational, economic, and ideological reforms. These reforms must help to redefine the Sharia law from the radical traditional form to a new moderate and peaceful one. In other words, unlike its thousand-years traditional path, Islam should be secularized in which a new concept of *Sharia* should revoke the traditional one [12]. To do that, the nature of Islam as a political religion must turn to be Islam as a religion for the individuals. This reform should take place, especially in the Middle-East, where the concept of the traditional *Sharia* implies a justified legal system. The new interpretation of *Sharia* refutes the concept of *Jihad* and promotes the concept of peace in the Muslims communities [6]. In this way, the threat against the world security would be decreed. Here, let us elaborate on these points that have been just said and pose the final proposal.

7. ISIL and Its Fall

Preliminary, we know that the ideological ground of ISIL which are the Islamism, *Salafism*, *Jihadism* are the most tangible and dangerous threat to the world security and peace. So, how we can practice critique on their threat? There are two dimensions to address the problem of the ‘Political Islam’ as an extreme militant ideology [17]: locally and globally, and in both ways, it should be addressed fundamentally and pragmatically. So let us elaborate on these points. First, the concern is with the global peace and security in respect to the expansion of ISIL and its threat to the world. Hence, a coordinated international solution can partially address this problem. To fight back ISIL effectively, not only calls for ‘the legitimate act of aggression’, e.g. military concept of ‘war on terror’, which it seems *inevitable*, but also a great deal must be done on the other concepts of this legitimate war: the moderate interpretation of Islamic texts, the refuted notion of *Jihad*, and a new form of *Sharia* law. This is the considerable point that General David Petraeus described in *The U.S. Army – Marine Corps Counterinsurgency Field Manual* as “clear, hold and build” [19, ch.9].

The first dimension to address the extremists and terrorist threat to the global world security and peace is to institutionalize bilateral security governance. The universal unanimity in the international policies must be made against any oppressive, fascistic, militant and extreme ideologies [see also 23]. In both ways, the United Nation (UN) has a legitimate *capacity* to grow their security governance function to address these global issues. The United Nation’s presupposed resolution should center on the observation of Human Rights, security of each region, and peace around the world. Yet, its governance program should shape the education and culture of the developing countries effectively. The North Atlantic Treaty Organization (NATO) and Organization for Security and Co-operation in Europe (OSCE) also have the capacity to address the threats that posed by extremism and terrorism, particularly the threat that pose by ISIL [18]. Specifically, NATO and OSCE can address such challenge by developing the global ‘security

governance'. It is in this way that they can address the Islamism fundamentally. The bilateral character does not only emphasize on the co-operation between Europe and North America, since in global concept, western regard as one actor. In fact, the western security governance, on the one hand, must have a compact co-operation with the regional security organization of other regions, and on the other hand, a high sense of unanimity with the United Nations.

The second dimension to address the problem of the Islamism, *Salafism*, *Jihadism*, and terrorism that threaten the world security and peace is a long-term reform. This would be the permanent concept of 'war on terror'. This dimension can only take place if the first dimension can be successful. However, in details, the second dimension can be broken down as follows:

1. The first step is to reform the traditional militant *Sharia*. This reform is to democratize and to moderate the Islamic laws. This can be done in two ways: first, it starts in our home, in the West. The first plan is to revise the western educational system and the second is to act cooperatively with the moderate Muslims globally [24]. The change is to act progressively and actively, not passively. This means that the aim of this act is revision and building. To do so, there should be the educational-cultural programs, in the Western academic structure [24], to educate a moderate Muslim generation. They should learn how to secularize Islam. That is to interpret the text and *Sunna* (tradition) in a way that Islam be the source of faith of individuals and, also by some countries, a national culture [12]. This would be the vital and permanent approach to counter the wave of Islamism, extremism and *Jihadism*. In this way, western countries won't become the host of fanatic ideologies, but on the contrary, they will become a 'source' of a moderate ideology of Islam by which they can educate their Muslims residents and then Muslims in the Middle East and Africa. This approach is one of the fundamental ways to stop spreading Islamism, *Salafism*, and *Jihadism* across the western countries – securing homeland – and consequently address the problem concerning the global security. Moreover, the reform is also included the political decision on the question concern "who can teach the Islam in the West?". The clerks and *Mollas* who has an affiliation with militant Islamic powers and ideologies or who promote the idea of the 'Political Islam' are relentlessly spreading Islamism and *Jihadism* [17]. Thus, they must be sent back to their countries and as substitution, their place will be offered to the moderate educated Muslims who would promote the peaceful Islam. Hitherto, the seats of moderate Islamic theology in the departments of philosophy still are empty. So, in this sense, there is a wider political concept which is missing.
2. The second step is to expand the programs of transformation from the 'political Islam' to the secularized Islam in the Middle East. One way is to teach the new interpretation of the sources to form a *Sharia* which emphasizes on the moderate concept of Islamic thoughts. In this sense, the revision of Islamic ideologies in other states, such as the Middle Eastern countries, is possible only with a long-term transnational corporation [25]. The aim, here, is to engage the people of each region to reach their political-consciousness [24, 25]. In the Middle East, the moderate Muslims would be the effective player to reform the 'Political Islam' and refute the concepts of Islamism, *Salafism*, and *Jihadism*. While the West has a supporting role, it is ultimately the responsibility of the moderate Muslims to lead this effort [7, p.17]. They can form a new notion of religion that makes the society face the new world with its modern and compatible Islamic *identity*, not with the barbaric and antique heritage [12]. Thus, traditional *Sharia* as a power-oriented set of law which requires a militant community and political power aim to '*Islamize*' the world, should be highly avoided, stopped for functioning and above of all should be reformed by the new form of *Sharia* which will be relying on the new moderate interpretation of the source of laws. Therefore, the Islamic heritage as an individualized religion will be saved for those who would believe in Islam as a peaceful, individualistic, and non-political religion, and on the contrary, the Islamic political power, the idea of 'Political Islam', Islamism, and *Jihad* would be the absurd terms and will be refuted.

3. The third step is to establish the academies to make sure that the military and police are well schooled in the theory and practice. They should learn how to deal with the terrorism, Islamism, *Salafism*, and *Jihadism*. What are the theoretical grounds of these acts? What are the strategies of the counterterrorism? The Combating Terrorism Center at The U.S. Academy in West Point, New York could be a good sample of this plan. Yet, we need such academy in all over the world, especially in the West, where the target of these extremists' groups are.

To sum up, it is to be sure that the 'war on terror' is the appropriate way to address the threat that posed by the extremists, Islamists, and Jihadists. Yet, we have to fully appreciate, on the one hand, what the 'war on terror' is? And how we can defeat the extreme trend of militant political Islam in a long-term.

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Nature or Nurture – Will Epigenomics Solve the Dilemma?

Beata Plonka

Department of Biophysics
Faculty of Biochemistry, Biophysics and Biotechnology
Jagiellonian University, Kraków,
Poland

e-mail: beata.plonka@uj.edu.pl

Abstract:

The concept of “nature and nurture” is used to distinguish between genetic and environmental influences on the formation of individual, mainly behavioral, traits. Different approaches that interpret nature and nurture as completely opposite or complementary aspects of human development have been discussed for decades. The paper addresses the most important points of nature vs nurture debate from the perspective of biological research, especially in the light of the recent findings in the field of epigenetics. The most important biological concepts, such as the trait, phenotype and genotype, as well as the evolution of other crucial notions are presented. Various attempts to find the main source of human variation are discussed – mainly the search for structural variants and the genome-wide association studies (GWAS). A new approach resulting from the discovery of “missing heritability”, as well as the current knowledge about the possible influence of epigenetic mechanisms on human traits are analyzed. Finally, the impact of epigenetic revolution on the society (public attitude, health policy, human rights etc.) is discussed.

Keywords: nature, nurture, behavioral traits, behavioral genetics, missing heritability, epigenetics.

1. Introduction

The phrase “nature and nurture” is applied in discussion of the influence of innate, hereditary factors (“nature”) in comparison to environmental influences (“nurture”), on the formation of individual traits (most frequently used in relation to human behavioral traits). The modern version of the “nature vs nurture” concept was introduced in the late nineteenth century by Francis Galton, who was also the founder of eugenics (meaning “being of good birth” or “noble in heredity”). Galton, who was influenced by the work of Charles Darwin (especially *On the Origin of Species*) believed in the dominance of heredity in the formation of human traits. His eugenics program incorporated some rules derived from plant and animal breeding used in husbandry and transferred

them on human race improvement and social advancement in the form of the so-called negative and positive eugenics.¹ The concepts of “nature” and “nurture” had been used before², but Galton treated them as opposites, thus creating “nature vs nurture” dichotomy (alternative). This fact was pointed out by E. Fox-Keller:

Galton was hardly the first to write about nature and nurture as distinguishable concepts, but he may have been the first to treat them as disjoint. As far as I can tell, such an assumption of mutual exclusivity was not made by earlier writers. For those who used the terms, nurture was rarely, if ever, seen as separable from nature; instead, it was referred to as helping and assisting, or as responding to, nature; nurture was more of a verb than a noun. But those writing after Galton did tend to disjoin the two, increasingly so over time. What is especially noteworthy to me is that the shift in formulation followed directly on the heels of the introduction of a particulate theory of inheritance in the last third of the nineteenth century. Indeed, I argue that this shift was greatly assisted by the arrival of a new way of conceptualizing heredity, and perhaps even dependent upon it [59, p. 11].³

It must be stressed however that the “nature and nurture” concept highlights a crucial biological phenomenon of mutual influences of both hereditary and environmental factors in the trait formation. Nature and nurture can be viewed as complementary or opposite to one another, but the main dilemma concerns the relative importance of both sorts of factors. There are many different interpretations of the dilemma, from the extreme genetic determinism to the “blank slate” (*tabula rasa*) view. The “blank slate” concept, linking development of human behavioral traits solely with environmental influences is usually attributed to John Locke. Such a notion, however, is clearly an oversimplification, as “innate ideas are not the same as innate dispositions” [59, p. 18]. Moreover, Locke clearly suggested to take these innate dispositions into consideration during the education process:

we shall see whether what is required of him be adapted to his capacity, and any way suited to the child's natural genius and constitution; for that too much be considered in a right education. We must not hope wholly to change their original tempers, nor make the gay pensive and grave, nor the melancholy sportive, without spoiling them. God has stamped certain characters upon men's minds, which like their shapes, may perhaps be a little mended, but can hardly be totally altered and transformed into the contrary. He therefore that is about children should well study their natures and aptitudes, and see by often trials what turn they easily take, and what becomes them; observe what their native stock is, how it may be improved, and what it is fit for: he should consider what they want, whether they be capable of having it wrought into them by industry, and incorporated there by practice; and whether it be worthwhile to endeavor it [117, § 66, loc. 831-839].

Extreme genetic determinism and “blank slate” view are two opposite approaches to the development of human behavioral traits that has been in conflict for decades, supporting various educational agendas and ideologies. It is now widely accepted by biologists that both hereditary and environmental factors have substantial influence on the formation of human traits, so the most extreme views are clearly outdated. We will try to present and discuss the evolution of nature-nurture approaches from the perspective of biological research.

2. Genes, Phenotypic Traits, and Missing Heritability

We have already described the concept of “nature and nurture” in terms of the relative influence of hereditary and environmental factors on the individual traits. We will try to analyze this problem from the perspective of particular traits so we must define the meaning of a “trait” first. The term is used in biological sciences as an attribute (feature, characteristic) of an organism, as accurately described by M.J. West-Eberhard:

A ‘trait’ is simply a somewhat discrete characteristic of an organism. It could be an aspect of morphology, a physiological state, a behavior, a molecule, or a disease, but the implication is that it is a product of development that is qualitatively distinct relative to other aspects of the organism [...] In addition to the discrete on-off qualitative traits of organisms, there are other traits, such as body size or longevity, that are “quantitative traits” — features that are described in terms of their numerically measurable (quantifiable) values (e.g., weight, mass, or life span). Discrete, qualitative traits have dimensions (for example, the length of a bone, the duration of a behavior) that can be measured as quantitatively variable traits⁴.

There is also another important biological term – “phenotype” applied to the observable characteristics (biochemical or physical) of an organism. The term may be used in a broader (general) meaning to address all observable traits of an individual, but it can also refer to particular traits, such as blood type or eye color. In general, the term “phenotypic trait”, if applied to humans, describes any aspect of anatomy, morphology or physiology (“biological traits”), but also our cognitive abilities, emotions or personality (behavioral traits). Typically, the term “trait” is used in a sense of a “phenotypic trait”, as opposed to the genotype. The term “genotype” can also have a broad meaning and describe the entire set of genes (genetic constitution of an organism), or just refer to the variants of a particular gene (alleles). Humans, as diploid organisms, have two alleles of any gene – at a specific genetic locus (position). The genotype of an individual is described as homozygous if it has two identical alleles in a specific locus, and with two different alleles – as heterozygous. Phenotypic traits result from complex interactions between genes and environment, with a large number of genes involved in the formation of the so-called polygenic traits. There is a substantial variance among traits in the level of environmental influence, from the traits determined almost exclusively by the genes, to the traits that are formed to a large extent by environmental factors. Genetically identical twins that are not, in fact, phenotypically identical, are a great example of the trait-environment relations. Environmental factors influence every individual in a unique way and order, changing its internal environment and affecting subsequent processes of gene expression [124].

The mechanisms of the genome-environment interactions in the trait formation are the main focus of biologists, and the relative impact of both hereditary and external factors is the key aspect of the “nature and nurture” problem. The main question about the basis of phenotypic differences in human populations has been often answered according to the genetic determinism view. This solution led to the belief that human traits are determined by genes and other influences are of minor importance (if any at all). We are well aware of the genetic diversity among individuals in a human population, but the extent of this variation is not fully understood yet.⁵ The general trend of searching for genetic variants that can be associated with particular human phenotypic traits is especially apparent in the so-called genome-wide association study (GWAS). The GWAS analyses, however, has been primarily focused on the genetic diversity at a single position in the genome (single nucleotide polymorphism – SNP) [85].⁶ There is a growing body of evidence, however, that structural variations (genomic alterations involving DNA fragments > 1 kb) play much more prominent role in the genetic variation than previously assumed, with up to 13% of the human

genome being subject to structural variations [27, 48, 53, 95, 196]. Feuk L., Carson A.R. and Scherer W. describe this change in their crucial paper:

The first wave of information from the analysis of the human genome revealed SNPs to be the main source of genetic and phenotypic human variation. However, the advent of genome-scanning technologies has now uncovered an unexpectedly large extent of what we term ‘structural variation’ in the human genome [...] Rapidly accumulating evidence indicates that structural variants can comprise millions of nucleotides of heterogeneity within every genome, and are likely to make an important contribution to human diversity and disease susceptibility [53].

One kind of structural variations (the so-called copy number variants – CNVs)⁷ seem to have a particularly strong impact on phenotypic diversity, especially complex traits [27, 65, 79, 196]. The number of copies of salivary amylase gene varies among humans (up to 10 copies), with multiple copies leading to higher amylase levels and the ability to digest the starch in food. It is an interesting example of the influence of diet on the genetic variation in human populations [100, 148]. Lactase persistence, a uniquely human trait, is yet another example of the diet-driven changes in human diversity, but it is also interpreted as a case of the influence of culture on human evolution.⁸ The ability to digest lactase after childhood is prevalent in populations with diet strongly dependent on milk and a long tradition of dairy herding. Moreover, this ability may have various genetic backgrounds and has appeared several times independently in human populations in Europe, Africa and the Middle East in the past 10,000 years [100].⁹ This is, as pointed out by Kingsley D.M. “a striking example of the repeated evolution of a similar trait by independent changes affecting one gene [...] Its retention in milk-dependent societies also illustrates how culture can reinforce the forces of evolution.” [100, p. 58-59].

Many years of genomic research has revealed the basic fact – the links between genes and appropriate phenotypic traits are complex, non-linear and often unpredictable. The diversity of DNA sequence in the human population (DNA sequence variants) has been the focus of genetic studies of complex traits. There can be a wide spectrum of possible effects an allele can have on the phenotype – from a huge impact (e.g. in single gene disorders), moderate size effects of several alleles and small effects of many alleles, to the cumulative impact of a very big number of variants [124]. All these facts have diminished expectations of finding simple answers to the question about the impact of heredity on human features and abilities. It has not deterred researchers from pursuing correlations between genes and particular human traits, but subsequent discoveries have again challenged some of our notions.

An ambitious goal of sequencing human genome and locating all genes has been established for the Human Genome Project. The discovery of approximately 23,500 genes in the human genome had come as a great surprise, which has been further increased by finding direct links between traits and only 1.5% of the genome. It means we know very little about the function of about 98.5% of our genome, and this “chunk” is often described as “the dark matter of the genome” [12, 107, 108, 197].¹⁰

Therefore, it has even become necessary to find a new definition of the “gene”, as the old ones have become outdated.¹¹ The first concept of the gene comes from the work of Gregor Mendel (1866) and means an abstract element of heredity, acting as a distinct, discrete unit. There have been other definitions, such as gene as a distinct locus (Thomas Morgan 1915), “gene as transcribed code” (1960s), “gene as an open reading frame (ORF) sequence pattern” or “annotated genomic entity enumerated in the databanks” (1990s-2000s) [68, p. 670]. The topic was so important and controversial that 25 experts involved in the Sequence Ontology Consortium spent nearly two days in heated discussion to reach the consensus. Finally, a tentative definition was created of a gene as “a locatable region of genomic sequence, corresponding to a unit of inheritance, which is associated

with regulatory regions, transcribed regions and/or other functional sequence regions” [143, p. 401].¹²

The search of genetic basis of human complex traits during the genome-wide association studies (GWAS) has revealed that the major portion of heritability estimated in previous studies cannot be explained [117, 120, 121, 191]. This discovery has led to questions concerning the factual extent of genetic factors in the trait formation and the term “missing heritability” has been applied to it.¹³ Some researchers focus mainly on improving resolution of GWAS techniques (ability to detect small-effect variants) as well as statistical methods of data analysis to prove the dominance of genetic factors [10, 34, 120, 210]. There is also another trend, however, as scientists start to acknowledge the crucial role of environmental factors for phenotypic traits. This change of view has been strongly influenced by the evidence of the importance of epigenetic effects, which will be discussed later. Clarke A.J. & Cooper D.N. summarize the dilemma:

So, where is this ‘missing heritability’? We respond to this question in two different ways. First, we believe that complex disorders are indeed complex and that genetic studies of complex disorders in humans face a number of challenges including gene-gene and gene-environment interactions and epigenetic modification of the genome. Second, we shall argue that high estimates of heritability have been misinterpreted as showing that a predisposition to such a condition (one with high heritability) must have been transmitted through the family from parent to child. The complexity of these common conditions is apparent from the range of factors that need to be considered as potentially contributing to the ‘missing heritability’ [26].

3. Genes and Behavioral Traits

The most controversial aspect of the “nature and nurture” problem concerns human behavioral traits that are studied by behavioral genetics. Decades of research has found numerous genes associated with such traits as cognitive or language abilities, but there is also a lot of misunderstanding concerning these discoveries. There is a marked tendency to focus solely on the genetic background of traits in a clearly deterministic way, coupled with the neglect of other factors. Despite the fact that relations of traits to both heredity and environment have been proven to be extremely complex, they are seldom perceived in that way, especially by the general public. This way of thinking, which can be observed even among scientists, is criticized by Y. Levy and R.P. Ebstein. They point out that

there have been quite a few articles in which a plea has been made to behavioral scientists to revise their misconceptions about gene-behavior correlates if they hope to ‘untangle the webs that link genes to cognition’ (Fisher, 2006, p. 270). A frequent misunderstanding concerns talk about ‘smart genes’, ‘language genes’ or ‘aggressive genes’. Such talk implies direct pathways from genes to complex behaviors, whereas biology tells us that those routes are multifaceted and nonlinear (Marcus & Fisher, 2003). Furthermore, such discourse neglects the role played by the intricate sets of ontogenetic factors, environments, developmental timing and stochastic events on the behavioral outcome (Rutter, Moffitt, & Caspi, 2006)” [111, p. 657].

One of the most famous examples of such an attitude was the *FOXP2* gene, generally described as a “language gene”. The product of the gene (transcription factor (forkhead box P2) Foxp2) indeed plays an important role in speech and language development. Some mutations of *FOXP2* are associated with severe speech and language disorders – mainly verbal dyspraxia (SPCH1; speech-language disorder 1) and specific language impairment (SLI) [56, 57, 113, 123].¹⁴ It is a great

oversimplification, however, to call *FOXP2* a “language gene”, as human language abilities are linked with many other genes.¹⁵ Moreover, many of these genes that had been associated with certain abilities (like speech and language) may have pleiotropic effect and influence other behavioral traits. It has been proven, apart from already mentioned *FOXP2* gene, also for *KIAA0319*, *ROBO1*, *DYX1C1* and *DCDC2* genes that affect mathematics abilities [125, 126].

In general, genetic overlap between traits (pleiotropy) is evident for various aspects of human cognitive abilities, such as general cognitive ability (verbal and non-verbal intelligence) as well as learning abilities (mathematics, reading and language skills). The influence of particular genes on diverse aspects of cognitive abilities revealed in twin studies has been accounted for in the Generalist Genes Hypothesis, but has also been confirmed by the Genome-wide Complex Trait Analysis, correlating genomic and phenotypic similarities across large populations [152, 193].¹⁶ Discrepancies between heritability estimates from twin studies and data obtained from genome-wide complex trait analyses (GCTA) have been especially huge for behavioral traits. The most striking example concerns behavior problems in childhood, as no significant genetic influence has been detected by GCTA, whereas twin studies estimates are about 40% for anxiety or depression and approximately 60% for hyperactivity and autistic symptoms. In general, the average twin heritability for both cognitive abilities and behavior problems are estimated for 50%, but GCTA heritability is about 25% and 12%, respectively [192]. It is interesting, however, that authors interpret these data in a strictly “genetic” way, focusing on difficulty with identifying appropriate genes due to the dominance of nonadditive genetic influence in behavior problems. The assumptions have remained, although the techniques have changed – the search for candidate genes has been replaced by looking for polygenic scores in genome-wide analyses of extremely large samples.

The gene-environment interaction has become a focus of many researchers in recent years, providing some valuable data [18, 22, 80, 84, 140, 181]. However, small samples, various model tests and high flexibility in data acquisition and analysis result in the high false positive rates and low replicability of the research estimating gene-environment interactions, a problem frequent in psychological studies [23, 39, 40, 43, 175].¹⁷

An interesting view on main trends in behavioral genetics is presented by E. Turkheimer, a behavioral geneticist himself. He points out that due to the genetic and environmental influences on traits, the main question in the nature/nurture debate concerns the importance of knowledge gained from genetic analyses:

What should we expect from the modern genomic era’s signature enterprise – the search for co-variation between measured DNA and behavior? [...] If genes influence behavior and sample sizes are large enough, significant associations between DNA and behavioral differences will be found. The important question is whether the associations will mean anything [195, p. 26].

The problems with replication of data stem from the complexity of human development and behavior that are extremely sensitive to the genetic and environmental context, so it is impossible to maintain experimental control over most of the conditions [195]. Turkheimer also criticizes the abuse of significance testing of experimental data, which has just become the so-called “*p*-fishing” (or “*p*-hacking”). He states:

In genomewide-association studies, data on hundreds of thousands of individual bits of DNA are collected in large samples and then searched for significant results at highly stringent *p* levels. If (as usually happens) no significant results are discovered the first time around, the process is repeated with even larger samples, continuing until

something significant finally emerges [...] Genome-wide association is unapologetic, high-tech p-hacking [195, p. 27].¹⁸

If behavioral genetics continues to fall into these traps in blind search for scientific significance its results will be in danger of losing genuine psychological meaning. The tendency is still strong, although ground-breaking discoveries of the epigenetic mechanisms have shifted attention to environmental influence on trait formation.

4. Epigenetic Revolution

The theory of Jean-Baptist Lamarck formulated early in the nineteenth century postulated that acquired characteristics of an individual are hereditary. The theory was abandoned a long time ago, but it has been revived recently and even the term “neo-lamarckism” is now occasionally used [9, 16, 178]. This possibility was once again taken into consideration after the surprising discovery of epigenetic mechanisms in trait formation. Epigenetic modifications can alter gene expression without changing the sequence of the genome and may be triggered by environmental factors such as diet and nutrition status, stress, exposure to toxic compounds or pharmacological treatment. The epigenetic changes accumulate during lifetime, increasing variation in the human population that can be observed even for monozygotic twins [17, 60, 191]. Epigenetic mechanisms have been implicated in certain diseases, such as syndromes involving mental retardation [44], cancer [31], diabetes and obesity [42].

The epigenetic changes result mainly from DNA methylation (by DNA methyltransferases) and post-translational histone modifications. The mechanisms of DNA methylation and demethylation are of particular importance as the balance between these processes strongly affects the gene expression dynamics [45, 162]. Another mechanisms of epigenetic regulation are connected with histone methylation and acetylation, changes in chromatin organization (e.g. activity of chaperones) as well as involvement of various types of RNA (such as specific mRNAs and siRNAs/miRNAs or ncRNAs) [112, 115, 162, 166, 213].

There is a growing body of evidence of the importance of epigenetic regulation in behavioral and cognitive processes [71]. Epigenetic influence has been observed in brain development and neuroplasticity [2, 49, 50, 154, 163, 173], neuron differentiation [86], also learning and memory formation [24, 28, 37, 51, 54, 90, 144], including fear memory formation [77, 89, 131]. Epigenetic mechanisms are also involved in aging, neurological diseases, mood and psychotic disorders, cognitive impairments or response to trauma [19, 50, 83, 144, 163, 169, 173]. There are also data concerning epigenetic changes in the brain that may lead to certain behavior, like suicide [1] or increased susceptibility to schizophrenia [63].

Epigenetic mechanisms mediate the impact of early-life experiences, such as malnutrition and exposure to toxicants (especially in prenatal stage), but also social environment, stress, adversity, abuse or trauma [74, 97, 106, 118, 146, 156, 167, 183, 184, 186, 187], and prenatal maternal stress affects the offspring [20]. On the other hand, such factors as physical activity, social interactions or enriched living conditions can lead to positive epigenetic changes [122].

There are also data suggesting the involvement of epigenetic mechanisms in changes caused by parenting. The fact that maternal care in mice and rats changes epigenetic programming has been proven by many authors [30, 169, 186, 198] and has also been observed for humans [126, 135].

Epigenetic mechanisms are also suggested to be the basis of the Flynn effect [73]. The Flynn effect refers to the generational increase in measured intelligence scores (IQ) observed in the general population, and was popularized by James Flynn [58]. This phenomenon, estimated for about three points of IQ score per decade, has been observed at least since the 1930s, but there is some evidence the rise started even in 1917 (Tuddenham, 1948). The Flynn effect was confirmed across different age groups, tests and populations [149, 190].

There are a lot of data confirming the importance of epigenetic effect on individuals during their lifetime. The real transgenerational inheritance, however, is still under debate, especially for humans [32, 33, 52, 75, 81, 87, 88, 114]. There is some evidence of transmission of epigenetic changes through the germ line [5, 13, 25, 130, 203], as the erasure of methylation marks seems to be incomplete in mammalian cells [114, 158]. Moreover, various kinds of RNA has been detected in gametes, that can influence chromatin remodeling and gene expression [78, 93, 99, 101, 102, 112, 132, 165, 209]. Epigenetic changes have been observed in paternal germ cell programming due to severe social defeat, chronic stress, traumatic experience, conditioned fear, cocaine exposure or dietary change in mice [7, 164].

Several studies revealed the link between environmental stress or prenatal malnutrition and chronic diseases up to the second generation [82, 141, 179], while early life circumstances influence longevity [94]. Exposure to various xenobiotics and chemicals (e.g. in environment) may lead to many diseases and abnormalities, including behavioral changes, even down to the fourth generation [5, 15, 29, 92, 103, 139, 177, 180, 207]. There are also data suggesting that prenatal immune activation can affect brain development and behavioral traits down to three generations [201].

The most important and interesting question concerns the epigenetic transgenerational inheritance of individual experience. It has been proven that parental odor experience (including olfactory fear conditioning) is transferred to subsequent generations in mice [37, 38, 185]. Several observations suggest the beneficial effect of enriched environment early in life that is transferred to the next generations in animals [6, 176]. Early life stress due to maternal separation induces alteration of some behavior (risk assessment, novelty response, social behavior) across three generations in mice [61, 204], but the effect can be diminished by environmental enrichment [67]. Severe social stress in adult mice may lead to anxiety and depressive-like behavior in the progeny [41]. Recent data suggest that anxiety and stress-reactive traits can be transmitted across multiple generations [130] and point to the link between parental stress, violence exposure and PTSD in humans and epigenetic changes in the offspring [14, 96, 109, 147, 155, 208, 211].

The examples of empirical evidence presented here suggest strong connections between environment and trait formation via epigenetic mechanisms. The epigenetic effects are particularly well documented in animals, even in the case of transgenerational transfer. The evidence of these effects in humans is still relatively scarce, so their significance and magnitude remain to be ascertained. The controversy also stems from the lack of clear definitions of various “modes” of inheritance (e.g. epigenetic) and the complexity of human development so broader definition of non-genetic inheritance is required [135, 137, 189]. The strongest evidence of transgenerational inheritance of traits acquired through experience concerns the influence of parental PTSD and exposure to severe trauma on the risk for psychopathology in the offspring. It is extremely difficult (or even impossible) to differentiate between genetic, behavioral and epigenetic (non-genetic, non-behavioral) ways of transmission of behavioral traits, so the data must be treated with caution.

5. Epigenetics and Society

Epigenetics explain how environmental factors promote changes in living organisms, contributing to the nature/nurture discussion and challenging the previously established opposition. Despite the fact that many issues are still unresolved, current findings suggest a strong impact of “nurture” on individuals, sometimes even stronger than “nature”. It cannot also be denied that the discovery of epigenetic mechanisms has created new perspectives in biology. Epigenetic effects allow for better understanding of complex interactions between living organisms and environment that modify traits in individuals. The ground-breaking work on the influence of the early life experiences on the health and behavior later in life [170, 188, 200] has led to “an explosion of interest in so-called epigenetic mechanisms of gene regulation in the brain” [129, p. 24]. These discoveries added new meaning to the nature/nurture discussion, but also created a danger of focusing solely on molecular

mechanisms with exclusion of more complex (social, economic or political) aspects of analyzed situations. Margaret Lock points out that it

raises concerns that we may well be entering an era that is embracing a new form of somatic determinism. Although the contribution of environments, social and physical, to human development, health, and illness, are now well recognized, there is a distinct danger that the molecular endpoints that these variables bring about, and very little else, will receive due attention [...] Over the course of the twentieth century, molecular reductionists have time and again made headway by black-boxing the social. Epigenetics, it seems, has the potential to bring about an end to this situation, but it remains to be seen whether it will transcend the hegemony of molecularized biological determinism [116, pp. 292, 304].

The problem of epigenetic determinism was also discussed by other authors [199].

On the other hand, this “epigenetic revolution” may be used to make unsubstantiated claims by media commentators or politicians and create huge expectations in society. Maurizio Meloni and Giuseppe Testa present a thorough discussion of scientific controversies surrounding epigenetics and their potential impact on social theories & policies. They point out the rift between scientific debate and public opinion:

It is in this mismatch between what is established and what is at present a source of heated scientific dispute that speculative assumptions, inflated discourses and enthusiastic media promotion, in a word all that create hypes around the epigenetic imaginary, are likely to find fertile ground [128, p. 439].

These unrealistic expectations stem partly from both the success and shortcomings of genomics that failed to deliver the complete understanding of human diversity and health risks. The post-genomic era brings new promises that we are eager to embrace.

Rapidly increasing popularity of a new research field known as Developmental Origin of Health and Disease (DOHaD) is a particularly striking example of this trend. In the light of evidence concerning the importance of prenatal growth it seems reasonable that we should “support mothers to secure future public health” as David Barker states in his commentary [8]. Proper policy and public awareness (especially among pregnant women) could have beneficial effects, but we definitely shouldn’t “jump in without checking the water level”. Sarah S. Richardson warns against the irresponsible discussion as “DOHaD would ideally guide policies that support parents and children, but exaggerations and over-simplifications are making scapegoats of mothers, and could even increase surveillance and regulation of pregnant women” [160, p. 131].¹⁹ This tendency that can justify constraining women’s freedom and lead to their objectification is now evident in some publications and discussions. Richardson summarizes it perfectly:

As an epigenetic vector, the maternal body is at once a background element, a medium for the fetus. Yet it is also a “critical” developmental context in which environmental exposures are amplified, cues are transmitted, and genes are programmed. In epigenetic explanations, elements of agency, control, and intervention mix ambiguously with models of nondirective, inertial developmental systems [159, p. 225].²⁰

The knowledge about epigenetic effects can be used properly for example to promote better health outcome or counteract social and racial discrimination [72,105], especially if transgenerational transmission of personal experience would be finally proven. The possibility of such a transfer shouldn’t be ignored, even if it places more responsibility on us for the society we create. This

responsibility, however, should be treated with special consideration in order to avoid bad social and health policies based on inflated expectations, exaggerations and over-simplifications. Such an outcome is particularly probable as we often succumb to the overwhelming desire of finding simple answers to complex questions. It can be extremely difficult to find a balance between the responsibility for future generations and human rights of actually living individuals. We must also remember that the knowledge gained in the post-genomic era can become a powerful tool of abuse in the hands of well-meaning, scientifically-enlightened tyrants.

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Notes

1. See for example [64, 98].
2. “Recently, a fashion has arisen for tracing the phrase ‘nature and nurture,’ and the debate with which that phrase is associated, back to Shakespeare, or at least to Prospero in *The Tempest* (1623), who writes off Caliban as uneducable: ‘a born devil, on whose nature / nurture will never stick.’ Some have traced it further back to a monograph on children’s education written by an Elizabethan pedagogue, Richard Mulcaster. Mulcaster’s words, ‘Nature makes the boy toward, nurture sees him forward’ (1581, 35), are sometimes cited as an early contribution, and perhaps even a beginning, of ‘the great war’” [59, p. 17].
3. Fox-Keller further explains her statement: “I want to suggest that there is already in Darwin’s dissent from Mill a clear hint of the turn that Galton makes explicit. This turn, I claim, is rooted in changing conceptions of heredity, and in accord with these changes, with the new alignment between innate and hereditary then taking place. I am not persuaded that there is anything in Mill’s writings to indicate such an equation between innate and hereditary, still less to support an equation between nature and heredity. In fact, in many of Mill’s remarks, *hereditary* refers primarily to the inheritance of property or title; as for most writers of his time, the noun *heredity* was not yet part of his usual vocabulary” [59, p. 21].
4. West-Eberhard MJ. (2008), *Are Genes Good Markers of Biological Traits?*, p. 178. She adds: “Some authors use the term “module” to describe a discrete trait. In operational terms, a discrete or modular trait can be defined as a product of a separate developmental pathway. But it is more accurate to say that a trait is “somewhat discrete” rather than “discrete,” or that it is “modular” rather than “a module” because no trait is completely independent of all other traits in an integrated individual organism” (ibidem).
5. The genetic variation among humans has been estimated by genomic studies, and according to Marian A.J. “humans are genetically very diverse. They differ in approximately 0.1% of their genomes.” [124, p. 65]. These data can be viewed quite differently, however. Feuk L., Carson A.R. & Scherer S.W. present a different interpretation, stating: “A striking observation from the analysis of the human genome is the extent of DNA-sequence similarity among individuals from around the world: any two humans are thought to be about 99.9% identical in their DNA sequence. It is therefore through studies of a small fraction of the genome – which constitutes the genetic variation between individuals – that insights into phenotypic variation and disease susceptibility can be gained” [53, p. 85]. It is also suggested that a substantial portion of all genomic data cannot be explained by our current models and some regions in the genome may have different sequence variation rates [21, 153, 157].
6. All analyzed SNP variants (and some other forms of genetic variation) for many species are collected in the public Single Nucleotide Polymorphism Database (dbSNP) maintained by the National Center for Biotechnology Information (NCBI) in collaboration with the National Human Genome Research Institute (NHGRI). New data are revised and made available in irregular intervals as a series of “builds”. Database is available online <http://www.ncbi.nlm.nih.gov/SNP> [173]. Statistically significant GWAS data concerning SNPs and SNP-trait associations are collected in the online GWAS Catalog provided by the NHGRI and the European Bioinformatics Institute (EMBL-EBI) [205].
7. Copy number variant (CNV) is a segment of DNA (≥ 1 kb) that can be found in a variable number of copies (in comparison with a reference genome) among individuals [53].
8. Lactase persistence means the ability to maintain the activity of the intestinal lactase gene beyond the infant nursing period and depends on a variant form of the regulatory (enhancer) region that increases the activity of the promoter of the gene [100].
9. Three main populations with traditions in dairy herding differ with occurrence of specific variants of the lactase gene regulatory regions: population of Central and Northern Europe (so-called T₋₁₃₉₁₀ allele, also found among US

- inhabitants of European origin), population of the Middle East (G₋₁₃₉₁₅-C₋₃₇₁₂ variant) and Eastern Africa inhabitants (G₋₁₃₉₀₇ allele) [11, 46, 47, 104].
10. The fact that approximately 98.5% of the human genome is not protein-coding forced us to revise our notions about the so-called “non-coding” DNA. These segments are now believed to have regulatory functions and be able to influence complex traits [3, 69, 145, 212].
 11. Jia Y. et al. pointed out that the new definition of the gene must accommodate the recent advances in the study of genome (genomics), RNAs (ribonomics) and proteome (proteomics) [91]. Gerstein M.B. et al. defined a gene as “a union of genomic sequences encoding a coherent set of potentially overlapping functional products” [68, p. 677].
 12. H. Pearson describes the consortium difficulties: “But reaching a consensus over the definition is virtually impossible, as Karen Eilbeck can attest. Eilbeck, who works at the University of California in Berkeley, is a coordinator of the Sequence Ontology Consortium [...] Eilbeck says that it took 25 scientists the better part of two days to reach a definition of a gene that they could all work with. ‘We had several meetings that went on for hours and everyone screamed at each other,’ she says. The group finally settled on a loose definition that could accommodate everyone’s demands” [143, p. 401].
 13. The difference between estimated heritability and the results of the GWAS studies has been especially high for human height, a well-researched polygenic trait. It has been revealed that the GWAS studies which associated more than 40 genetic variants with height differences, have been able to explain about 5% of phenotypic variance, as compared to expected 80-90% heritability [76, 110, 119, 121, 202]. Yang J. et al. in their crucial study applied more refined methods of analysis and accounted for 45% of variance [208]. These data suggest much stronger than expected environmental influence, but other strictly genetic phenomena, such as rare variants or interactions among genetic loci must also be considered [119, 121, 214].
 14. The association of *FOXP2* with SLI is a result of *Foxp2* regulation of the expression of *CNTNAP2* gene (contactin associated protein-like 2). Moreover, transcription factor *Foxp2* regulates expression of approximately 300 genes in the brain, but for 34 genes this link is exceptionally strong. Such a wide range of *FOXP2* gene influence on various processes in the developing brain suggest a possible association with other human abilities and behavioral traits [36, 56, 182, 198]. For example, *Foxp2* regulates expression of *MET* gene (receptor tyrosine kinase), both genes being implicated in higher cognitive dysfunction and ASD (*autism spectrum disorder*) risk [134]. It has also been proven that expression of *FOXP2* gene is regulated by multiple miRNAs, which means possible influence of environmental factors [62].
 15. The genes involved are *CMIP* (c-maf-inducing protein), *ATP2C2* (calcium-transporting ATPase, type 2C, member 2), *DYX1C1* (dyslexia susceptibility 1 candidate 1), *KIAA0319*, *DCDC2* (doublecortin domain containing 2), *ROBO1* (roundabout, axon guidance receptor, homolog 1 (Drosophila)), *MRPL19* (mitochondrial ribosomal protein L19) and *C2ORF3* (GCFC2 GC-rich sequence DNA-binding factor 2) [4, 133, 138, 142, 171].
 16. Correlation has been established between cognitive abilities and various genes, such as genes necessary for neurotransmission - *DRD2* (dopamine receptor D2), *COMT* (catechol-O-methyltransferase), *CHRM2* (cholinergic receptor muscarinic 2), *MAOA* (monoamine oxidase A), *BDNF* (brain-derived neurotrophic factor) and *GRM3* (glutamate receptor, metabotropic 3) or brain function - *NCSTN* (nicastrin), *DTNBP1* (dystrobrevin binding protein 1), *STX1A* (syntaxin 1A), *FMR1* (fragile X mental retardation 1) and *UBE3A* (ubiquitin protein ligase E3A). Other studies has shown links with such genes as *NPTN* (neuroplastin), *KCNMA1* (potassium channel, calcium activated large conductance subfamily M alpha, member 1), *NRXN1* (neurexin 1), *SCRT* (scratch family zinc finger 1) and *POU3F2* (POU class 3 homeobox 2). However, some of the previously established correlations has been questioned recently, especially for *DRD2*, *CHRM2*, *DTNBP1*, *COMT* and *BDNF* genes [23, 35, 66, 151, 161, 171].
 17. The landmark study was published by Caspi A. et al. and proved that the influence of stressful events on depression can be moderated by a polymorphism in the promoter region of the serotonin transporter (5-HTT) gene [22].
 18. Turkheimer’s comments are a reply to the paper of Plomin R. et al., focusing on the replicability of behavioral genetics data. Turkheimer concludes his analyses that “the activities of people involved in divorce proceedings can be examined at a genetic level of analysis, but (genetic influence notwithstanding) we do not anticipate a time when people will get genetic testing to help them understand difficulties in their marriages [...] Where will such ambiguously psychophysical entities end up on an axis of developmental complexity running from Huntington’s disease to divorce? This, not genes versus environment, is the real question posed by behavior genetics. I am more skeptical than most of my colleagues about the reductive power of genetics to explain such things, but I recognize that the scientific jury is still out. In the meantime, all I ask is that inevitable findings of weak genetic influence not be accepted as strong genetic explanations of complex human behavior while we wait for the progress of science to take its inevitable course” [150, 195, p. 26-28].
 19. These expectations could put more weight on women and seem to be contradictory, as pointed out by Richardson: “while maternal bodies are conceptualized as having great power to influence future generations and are positioned at the center of the intervention model advanced by DOHaD, the DOHaD model accords individual women very little power to influence their own outcomes. On the one hand, women are instructed to do all they can to prevent

harm to their fetus. At the same time, an individual woman can do little to improve outcomes for her own offspring if they are trapped in the intergenerational epigenetic “feedforward cycle” hypothesized by DOHaD research” [159, p. 224]

20. Richardson comments on some more extreme notions: “DOHaD researchers hope that a collateral effect of their policies will be to enhance resources for pregnant women. However, their proposed interventions are directed toward the most efficient methods to ensure developmentally optimum outcomes for the fetus. The symbols favored by DOHaD researchers – on the insignia of its international society, or the cover of one of the field’s leading textbooks, *The Fetal Matrix* [...] – are fetuses encapsulated in headless, legless maternal abdomens [...] The maternal body is a transducing and amplifying medium necessary to get to the fetus, an obligatory passage point, not a primary endpoint or subject of DOHaD research” [159, p. 223]. See also [70].

**Wars and Conflicts are Only Randomly Connected
with Religion and Religious Beliefs.
An Outline of Historical, Cognitive, and Evolutionary Approach**

Konrad Szocik

University of Information Technology
and Management in Rzeszow,
Poland

e-mail: kszocik@wsiz.rzeszow.pl

Abstract:

Many scholars that study of religion and religious beliefs find that they affect behavioral patterns. Some of them suggest that this impact is morally wrong because religion and religious beliefs can cause aggression, conflicts, and wars. However, it seems that this topic is more complicated and complex. Here I show that religion and religious beliefs can affect mentioned above morally wrong patterns only in some particular cases. Usually they do not do it. Here I show an outline of philosophical historical approach that was critically oriented against religion and that accused it about conflicts and wars. Then I briefly discuss two current scientific research approaches to the study of religion, cognitive and evolutionary. They falsify these critically oriented philosophers because they treat connection between religious beliefs and conflicts as random and necessary. The core idea of this paper assumes that religious beliefs do not affect aggression and wars directly. They can sometimes strengthen or weaken some biological mechanisms that then can be used to compete by conflicts or by not-violent inter-group competition.

Keywords: religion, religious beliefs, conflicts, wars, politicization, cognitive science of religion, evolutionary study of religion.

1. Introduction

Religious beliefs are commonly discussed and studied in the Western world. However, it can be supposed that in the following fifty years they will be the subject matter only of historical studies. Now they are studied not only by historians and philosophers, but also by scientists like cognitive science of religion and evolutionary study of religion scholars. They provide a new insight to almost classical philosophical explanation of connection between religion and religious beliefs, and wars and conflicts. I mean the modern philosophers that since the 16th century have accused religion about leading to aggression and wars. More promising seems to be cognitive and especially evolutionary approach. It is worth bearing in mind psychological approach that usually find more positive than negative results of religious beliefs. Some researchers find that the mediation

hypothesis suggests that religiosity provides better level of self-control and only in an indirect way can affect socially wrong patterns [24]. Scholars underline positive impact of religious beliefs on reducing criminal behaviors [13]. Other ones point out that the figure of God in the Christian Bible does not affect morally wrong behaviors. All passages that favor these kinds of behaviors were written by the human secondary authors that sometimes rejected God commands [5, p. 20].

Before I discuss the current cognitive and evolutionary explanation of indirect and random connection between religious beliefs and wars, I briefly remind philosophical explanation of this correlation that was one of dominant approaches in the modern times. It can be said that cognitive and evolutionary approaches falsified philosophical explanation that connects religion with conflicts.

2. The Concept of Religious Tolerance in Poland

Development of Reformation and protestant denominations since the 16th century has begun the period of so called religious wars and conflicts. There is no doubt that there was some kind of correlations between religious affiliations and various brutal and criminal events that have included small criminal acts and international wars as well. It can be said that the current secularized Western Europe does not have these kinds of conflicts, wars, and smaller criminal acts that were a domain of the period of religious wars and conflicts. There can be found one exemption, terror attacks that usually are prepared by individuals that can use some religious contents. This phenomenon of the current terrorism can lead to belief that an impact of religion on politics or political using of religion has usually wrong consequences. However, the question of terrorism and its religious affiliations is not the issue of this paper (some possible correlations between terrorism and religion are discussed in: [32]). According to the key idea of this paper, association of conflicts with religion and religious beliefs is random and unnecessary coincidence that is the result of using some cultural phenomena. Various cultural phenomena, not only religious can work in similar ways on biologically deeply rooted mechanisms that affect human behavioral patterns. This topic will be discussed later. It can be said that religious contents were only one of the possible phenomena that were particularly used to strengthen and maintain some behaviors, primarily affected by political and social aims.

In this context it seems understandable that the concept of the religious tolerance could not be commonly shared because biological factors that determine dynamics of in-group and inter-group relations were too much rooted in so called human nature. Despite this biological determination, the concept of religious tolerance has emerged in Poland much earlier than in the Western Europe. This concept was a remedy that should provide peaceful coexistence of various religions. This concept has shaped a framework for the Polish legal and political culture, and became the model for the Western Europe.

Paulus Vladimiri (Paweł Włodkowic) prepared the concept of religious agreement and tolerance at the beginning of 15th century and he has presented his ideas in the Council of Constance. He pointed out that nation has the right to self-determination that is independent on its religious affiliation. Vladimiri underlined the power of natural and divine law to reject a legitimacy of religious wars [44, pp. 58-60]. It can be said that his theory has affected the further development of the international law. His approach was implemented in Poland and was one of the most pioneer in the world. In the 16th century Andrzej Frycz Modrzewski claimed that religious tolerance should be the basic principle of the law.

It can be said that these ideas were realized in Poland in the practice of political life. Poland is called “the state without stakes”, however there were present protestant denominations like Lutheranism, Calvinism, or Aryanism. In 1645 in Toruń (Poland), during the Thirty Years’ War (1618 – 1648) has been organized *Colloquium Charitativum* [46, p. 24]. The main purpose of this meeting was to reconcile the Roman Catholic Church and protestant denominations. It can be said that Poland was one of the exemptions in which the state power was found on multicultural social structure and religious tolerance, not on national or religious unity, like in some Western countries.

Consequently, the Polish case presents that relation between religion and war is not inevitable, like many philosophers have suggested since the 16th and 17th centuries, and later [34]. It is worth to looking for new conditions and particular environment that should work to connect religion and religious beliefs with conflicts and wars. It is possible to find such conditions in Poland in the mid-17th century. I mean the concept of implementation of political unity that was based on the concept of religious unity. This cultural policy was affected by wars with other countries, like Sweden or Russia. It can be said that this period has begun the process of political instrumentalization of religion. Religion and religious beliefs were used as tools that enable differentiation and recognition of the members of one group from other competitive groups.

3. Emancipation of Philosophy and the Fighting Against Religion

Philosophers in the Western Europe have tried to emancipate. Their main opponents were political authority and religious institutions. The apogee of this emancipation is the philosophy of the Enlightenment that is focused on the critique of the current politics and religion. Religious wars, beside authoritarian regime, were one of the most meaning sources of Enlightenment philosophy. Uriel da Costa [6] and Baruch Spinoza [29] pointed out that religion and religious beliefs are morally harmful, and that they can affect conflicts. Consequently, Spinoza suggested that politics and ethics should be separated from theology and religion.

Similar thoughts were shared by Pierre Bayle who ran away from France from persecution of Huguenots. The Western philosophers found the links between religion and war that rather were not found by thinkers who have lived in Poland. Texts that have been published in the Western Europe since the 17th century found an insufficiency of religious ethics that should or have to be replaced by natural (philosophical) morality. It seems that these ideas were affected by two factors: religious wars, and mentioned above emancipatory attempts of philosophers who have proposed their tools – reason and reflection – as candidates for new rulers of the world instead of religious superstitions and political power. The frameworks of the new concept of secular morality can be found in Spinoza's *Tractatus theologico - politicus* (1670) or John Locke' *Epistola de tolerantia* (1689) [19]. It is worth to bearing in mind an anonymous (however, anonymous only in that time) manuscript entitled *The Treatise of the Three Impostors* [40]. The title impostors are Moses, Jesus, and Mahomet that are accused by the authors of this manuscript that they have invented religions to achieve their political aims. The French Enlightenment has used these texts in the 18th century to fight with religious superstitions [34].

4. Radical Critique of Religion in the Philosophy of the Enlightenment

Some of the Western philosophers have found some events that have confirmed their thesis about political and economic instrumentalization of religion. They have underlined especially the meaning of the Saint Bartholomews' Day massacre (1572) and the revocation of the Edict of Nantes (1685). Voltaire [48] and Denis Diderot [7] had in mind these events when they have considered religion as a system which is used to justify war. Religion has been interpreted as a tool that is used to manipulate society and to maintain violence in order to achieve economical and political aims. Claude Adrien Helvétius has suggested that the global peace requires removal of religion [12, p. 268]. Voltaire published in 1762 *Testament* of Jean Meslier who was the parson of Etrépigny and one of the first atheists *explicite* in the European philosophy. Meslier pointed out a strict connection between religion and war. In his opinion, the main cause of negative impact of religion is the concept of an abstract God who is the source of values that work independently on human being. The concept of confession is responsible for transition of moral responsibility from human beings to the concept of God [20, pp. 247-248].

Similar critique of religion can be found in the German philosophy. Georg Wilhelm Friedrich Hegel pointed out that religious wars were affected by „historical faith” that means that moral role is played by religious institutions, not by “moral faith” [11, pp. 171-172]. He noted that

propagation of religions is a dangerous process for the state [10, p. 255]. It seems that Hegel's critical approach to the moral nature of religion has been developed by Karl Marx's concept of religions as "opium of the people". It is worth bearing in mind that the critical philosophy of religion of Marx was more reliable than earlier, especially enlightenment theories. I mean the concept of alienation. According to Marx, there are various sources and various kinds of alienation, and religiously motivated alienation is only one of them. This approach is very similar to the current evolutionary study of religion (it will be explained later). In this context it can be said that the critique of religion that was appropriate for philosophy of the 17th and 18th centuries was affected not only by the defense of the reason but also by above-mentioned emancipatory attempts.

5. Religion and Politics

The Enlightenment-like critique of religion can be met also today. It is alive especially in the context of the current public policies that are developed by religious institutions. Giovanni Simonelli points out that religion was invented to justify violence and to intimidate opponents [27, pp. 14-15]. He recalls the main mentioned above ideas that were proclaimed by some Enlightenment philosophers. Critically oriented philosophers usually refer to the same historical examples like crusades, persecution of Anabaptists, or the slave trade [3, pp. 123-125]. Some of them find that crusades were affected by the papal bulls and priests' exhortations that have sanctified violence by the concept of God and "holy war" identity [43, pp. 126-128]. Political opponents were sometimes presented as enemies of religion. One of the most popular concepts was the concept of the God support for a given policy [28, p. 108].

Similar mechanisms can be found in some terroristic acts that are prepared in the name of *Jihad* [30, p. 10]. Their protagonists can justify violence and wars by regard to the God's will in similar way like wars and conflicts that were religiously justified in Judaism and Christianity [4, pp. 33-35]. Some parts of *Koran* are sometimes used to justification of religious wars and aggression. Some individuals and groups refer to these parts that indicate on using of violence against nonbelievers, depreciate them, and promise reward and victory in a war [31, 9:25-29, p. 66]. Islam has played an important role to provide the sense of identity and to provide a divine support for political activity that was used to propagate or to defend Islamic civilization [30]. All monotheistic religions have played similar role in the field of their politicization. Some part of *The New Testament* can also provide a divine justification for war: "Think not that I am come to send peace on earth: I came not to send peace, but a sword" [42, 10: 34].

The risk of socially harmful kinds of interpretation of the religious texts in the Roman Catholic Church has been stopped by the Second Vatican Council. Before him there were some stigmatized groups like Jews or Protestants [38]. The concept of religious tolerance (we should tolerate other "false" religions) was replaced by the concept of religious freedom (there are not true and false religions or all religions are true or they contains elements of the one truth) during the Council in 1965. This approach has removed the theoretical framework for aggression and the concept of ideological advantage of one religion over another one. The Roman Catholic Church during the Council has rejected thomistic and neo-thomistic philosophy in some fields that are associated with his cultural policy. Saint Thomas Aquinas who was announced by Leo XIII as the main philosopher of the Church [18, pp. 31-33], pointed out that there can occur so called just wars that are morally right. The clergy can provide his support for wars [26, Quest. 40, Art. 2]. The case of thomistic philosophy whose social part was partially rejected during the last Council presents that religious approach toward the war and conflict is strongly context-dependent. It can be used as an argument for mentioned above politicization of religion.

6. Secularization, Emancipation of Philosophy, and Limited Impact of Religion

Religious wars and conflicts in the modern times have affected philosophers to looking for a new philosophical base for morality that could avoid religious conflicts [9, p. 22]. It seems that an

emergence and propagation of the British deism expresses this attempt. The idea to separate ethics and morality from theology and religion has affected development of the critical Western philosophy. One of his main tools was a belief that religion is connected with war. Religious wars and conflicts showed that religion cannot support morality.

Immanuel Kant like Hegel [11, pp. 171-172] pointed out that religion is used to present human duties as the God commands [15, p. 203]. Kant has rejected two years before Hegelian *Positivität der christlichen Religion* the concept of moral justification by participation in institutional rites. He interpreted rites and sacraments as some kind of fetishization of religion that destroys individual moral patterns [15]. The concept of a difference between moral and historical faith is a common point of view that was commonly shared by Hegel and Søren Kierkegaard. Kant, Hegel, and also Kierkegaard have suggested that institutional nature of religion and fetishization of faith can lead to war and violence that can be justified by the concept of God's will. Kantian and Hegelian philosophy of religion assumes that religion is an inner morality that respects rule of love of neighbor and does not require institution to work.

Critical philosophy of religion that has been developed since the 16th century has affected political solutions in the Western Europe. The impact of religion was limited to the current role as one of the many agents in the democratic public sphere. The Second Vatican Council in some sense has accepted this critical approach to the social and political role that can be played by religion. The new Church approach interprets religion in Kantian and Hegelian sense like the source for individual morality that is based on the concept of the dignity of the human being [38]. The Church accepted political secularization in Europe [16]. The idea of secularization of religion refers to the concept of privatization of religion that prohibits an impact of religion on the public legislation, and discusses morally wrong nature of religious patterns [17, pp. V-VII]. However, the legislation of the European Union that proclaims secularization and privatization of religion does not suggest a harmful nature of religion. A starting point is a factual religious and cultural pluralism that excludes norms that are connected with particular religion and cannot be commonly shared. Consequently, the concept of separation or independence of law and morality is probably an optimal solution within pluralistic societies [36].

7. The Current Scientific Approaches to the Study of Religion

Philosophy until the 19th century has provided probably unique theoretical framework for the study of religion. Beside two dominant approaches in the 20th centuries, psychology and sociology of religion, there are two current scientific approaches to the study of religion, cognitive science of religion (CSR) and evolutionary study of religion (ESR). They provide a new explanation of possible correlation between religion and wars that is different than mentioned above philosophical explanation. The starting point of these two approaches is so called human nature that is the source of various, sometimes right and sometimes wrong, behavioral patterns. Religion and religious beliefs do not play such important role in this field like many philosophers have assumed before. It can be said that in the light of CSR and ESR mentioned above philosophers have overestimated a negative impact of religion. The same can be said about these philosophers who have defended religion and underlined that religion is a source of morality. It seems that both philosophical approaches are incorrect.

8. Cognitive Approach or Why We Do Not Kill and Die for Mickey Mouse

CSR points out that religion and religious beliefs are by-products of human cognition [2]. The core idea states that cognition contains some mechanisms and modules that have evolved in the Pleistocene for evolutionarily purposes that are strictly connected with survival and reproduction. However, the nature of these mechanisms prefers religious/supernatural contents. One of them is agency detection module that should look for predator and prey in environment [39]. According to CSR scholars, this module is hyperactive and has a tendency to find biologically non-existing

entities like religious ones. Other cognitive modules that favor religious beliefs are anthropomorphic explanation of the world, design stance, looking for purpose, or Theory of Mind. To sum, CSR assumes that the nature and structure of cognition makes religious contents more natural than other kinds of beliefs [41]. CSR explains in this way a cross-culture presence of the same or very similar religious contents.

If cognition favors religious beliefs, behavioral patterns that are affected by these beliefs express human instincts and intuitions that were evolved in the past environment. It seems that at the base of CSR it is easier to explain positive rather than negative impact of religion and religious beliefs. CSR states that religious figures can have positive impact on behaviors because they have privileged access to strategically important information about believers. This concept is associated with another one that states that “watched people are nice people”. It is one of the eight rules of “Big Gods” that have been proposed by Ara Norenzayan. The following other ones also underline positive behavioral impact of religions that includes so called Big Gods: “2. Religion is more in the situation than in the person; 3. Hell is stronger than heaven; 4. Trust people who trust in God; 5. Religious actions speak louder than words; 6. Unworshipped gods are impotent gods; 7. Big gods for big groups; 8. Religious groups cooperate in order to compete” [21].

Other cognitive approaches underline positive nature of the concept of an afterlife, or cohesive nature of doctrinal and imagistic kinds of rituals. Jonathan Jong and Jamin Halberstadt explain an impact of the death anxiety for origin and acquisition of religious beliefs [14]. Like Scott Atran notes, Mickey Mouse cannot provoke anyone to die for the idea that Mickey Mouse really exists. However, religious people can die for their beliefs [1]. People do not believe that Mickey Mouse, Batman, or Santa Clause have privileged access to their thought like, for instance, Jesus Christ. Atran, one of the founders and the leading world experts in the study of religion explains also, using among others CSR, axiological and religious roots of the current suicidal terrorism. His research shows that religious beliefs can affect behavioral patterns both in right and wrong ways. However, it is worth to bearing in mind the concept of parochial altruism that assumes that people are better at in-group than at out-group levels [25]. In this context it can be said that people behave according to some biological mechanisms (later in this paper) that are context-dependent because they can be strengthened or weakened by cultural phenomena like religious or political concepts. This issue refers to ESR.

9. Evolutionary Approach and Religion, and Religious Beliefs as an Adaptation

The key idea of ESR differs from CSR. ESR points out that religion and religious beliefs are adaptation or have adaptadness. ESR scholars usually reject CSR approach that explains religious beliefs like by-products of cognition. Religious beliefs and some parts of religion could be the object of selective pressure of biological evolution. It is possible to define if a given religious feature can be adaptation that is the product of natural selection. There are some features that adaptation should contain [45]. There is no doubt that religious elements can be interpreted as adaptations or something that have adaptadness because they can increase chances for survival and reproduction. Some scholars find that some religious beliefs and other parts of religion or religious systems at least in some periods and populations can work as adaptations [37]. David Sloan Wilson explains in evolutionary terms of survival and reproduction five religions like Judaism, the Early Christianity, Calvinism, the Bali water temple system, and the Korean Christian Church in the United States [47]. All of them were used to increase in-group cohesion and solidarity and, consequently, they have strengthened chances for survival. Religious beliefs usually have good impact on health, increase the level of reproduction, and they can motivate believers to self-sacrifice for the group welfare (Mickey Mouse or Batman usually cannot).

How is possible to explain correlation between religion, religious beliefs, and conflicts in this evolutionary framework? Like CSR, ESR does not suggest that religious contents lead to wars and conflicts. The main idea is an assumption that religious beliefs can work as adaptations. Consequently, if they are adaptations or have adaptive nature, they can support various kinds of

behavioral patterns. These patterns sometimes lead to wars and aggression, and sometimes do not. It can be said that they work at biological mechanisms like kin selection, direct and indirect reciprocity, or group selection. Religious beliefs can provide prosocial patterns, however it seems that this function is random and not obvious [23]. Some scholars find that religious contents are not sufficient and necessary cultural tools to provide cooperation and they have to co-work with other cultural phenomena [22]. Inter-group conflicts and wars can be selectively advantageous if they can provide new territory, water and food resources, and mates. If religious beliefs strengthen in-group cohesion and cooperation, they can provide an advantage for a given group over a competitive one. In this sense it can be said that religious beliefs can provide solutions like mentioned cohesion, solidarity, or self-sacrifice that then can work during inter-group competition. These competitions often work as conflicts and wars. However, religious systems are not unique cultural tool that can do it. Similar work is maintained by other phenomena like political, legal, or other traditional cultural phenomena. It seems that a specific feature of religion and religious beliefs is associated with the mentioned above nature of religious figures like a privileged access to thoughts of believers.

10. Religion as In-group Marker for a Breeding Population

It can be assumed that connection between religious contents and conflicts is only random and not necessary. Religious beliefs do not affect directly aggression and wars. As I mentioned earlier, they can strengthen or weaken biological mechanisms that cause selfishness and conflicts or altruism and cooperation. This function can be described as being in-group marker for a breeding population. Jay Feerman presents this approach and he points out that religious contents do it to enabling mutual recognition of the in-group members [8, p. 62]. It can be assumed that a given in-group will fight with other competitive groups with or without religious beliefs.

Beliefs are signals that provide cohesion and distinctive signs. This role is played by very irrational and useless beliefs. I mean some of the Roman Catholic statements like the concept of the Blessed Virgin Mary – the Mother of Jesus or the concept of the Jesus Resurrection. They are pragmatically useless because they do not affect any kinds of behavioral patterns. If someone believes that Jesus resurrected what kinds of behaviors this statement can provoke? It can lead to morally right (self-sacrifice, altruism, like in the case of the Early Christianity and of all heroically merciful Christians in the entire world) and wrong acts (like during the mentioned above religious wars in the Western Europe or in the case of anti-Semitism). However, the concept of Jesus Resurrection does not lead directly to any kinds of mentioned behaviors. A given group decides which patterns will be favored in the current time because particular environmental conditions shape the nature of adaptations. In the period of the Early Christianity practical mercy and charity were adaptive. For institutional kinds of Christianity more adaptive can be other kinds of behaviors. Other patterns are adaptive for the clergy and for the laity. However, the main idea is as follows: that does not matter what patterns will be affected by particular beliefs. Beliefs have to differentiate one group from another one. In the mentioned example, one population is marked by the concept of Jesus Resurrection. Other competitive groups do not share this concept and they can have other irrational and pragmatically useless beliefs.

To conclude, ESR in general does not assume that religious beliefs provoke aggression and conflicts. These events are rather by-products of religiously motivated or strengthened cohesion and solidarity. Of course, some fragments of the sacred texts can contain some phrases that can affect aggression and criminal acts. However, these fragments can work today as old adaptations that could be used in the past when these texts were written, but that are not adaptive today. It can be said that some religious beliefs can affect directly wrong acts when a given population will tend to expansion and domination and if it needs supportive ideas. The concept of an afterlife can affect eusociality that then can favor altruism toward others or conflicts with non-believers.

11. Conclusion

The main idea of this paper is an outline of some approaches that were developed toward the issue of connection between religion and war. Critically oriented European philosophers since the 16th century often pointed out that religion and religious beliefs can affect aggression, conflicts and wars. Some of them suggested that religious contents have morally wrong nature. Other ones tried to defend natural religion but they accused institutional kinds of religion. Consequently, religion and religious beliefs usually were interpreted by European philosophers as phenomena that in negative way affect so called human nature.

This philosophical critique was effective for their protagonists because religion lost his dominant social and political position. However, in the light of the current scientific research approaches to the study of religion it seems that religion and religious beliefs do not cause directly aggression, conflicts, and wars. They can strengthen these patterns when they are used to these purposes. It can be said that the way of using religious beliefs depends on the current level of development of a given population. Some of them need wars and conflicts to develop and they can treat commonly shared religious beliefs as a good tool to provide unity and solidarity or even motivate to self-sacrifice and to “killing and dying for the sake of an idea”, like Scott Atran notes. Perhaps this kind of explanation could be applied to the phenomenon of some individuals and groups associated with Islam that can use this religion as a marker that informs about their group affiliation in opposition to other competitive groups that do not share Islam or some kind of interpretation of Islam.

To conclude, perhaps it would be possible to find some correlations between the Polish concept of religious tolerance that has been proposed by Vladimiri, and the current conclusions of CSR and ESR. Vladimir noted that there is no sense to fight by various religious beliefs and affiliations. Religious beliefs are various and various populations have different particular beliefs. However, their main function is in-group marking that can provide cohesion and cooperation. Dependently on the current level of social and political development, a given group can use his in-group cooperation that sometimes can be strengthened by religious beliefs, to compete with other ones by knowledge and culture, or by aggression and wars.

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Notes

1. This paper is a continuation of thoughts that were published in the following paper: K. Szocik, *Czy uzasadnione jest wiązanie wojny z religią?*, *Studia Polityczne*, nr 3 (39) 2015, pp. 167-181. The current paper contains some modified fragments of that former one in the first, historical philosophical part.

The Uniqueness and Continuing Relevance of Gabriel Marcel



Brendan Sweetman is a teacher, philosopher, and writer. From Dublin, Ireland, he is Professor of Philosophy and holds the Sullivan Chair in Philosophy at Rockhurst University, Kansas City, Missouri, USA. He is the author or editor of twelve books, including *Religion and Science: An Introduction* (Continuum, 2010), *The Vision of Gabriel Marcel* (Rodopi, 2008), *Religion: Key Concepts in Philosophy* (Continuum, 2007), *Why Politics Needs Religion: The Place of Religious Arguments in the Public Square* (InterVarsity, 2006), *Contemporary Perspectives on Religious Epistemology* (Oxford U.P., 1992), *A Gabriel Marcel Reader* (St. Augustine's Press, 2011), and, most recently, *Evolution, Chance, and God* (Bloomsbury, 2015). He has published more than one hundred articles and critical reviews in a variety of journals, collections, and reference works, including *International Philosophical Quarterly*, *American Catholic Philosophical Quarterly*, *Faith and Philosophy*, *Philosophia Christi*, *Philosophical Quarterly*, *Review of Metaphysics*, *Stanford Encyclopedia of Philosophy*, *The Polish Encyclopedia of Philosophy*, and *New Catholic Encyclopedia* (for which he was a Consulting Editor). He has been a Visiting Scholar and Keynote Speaker at several universities and colleges in the U.S., and, internationally, has given lectures in many countries. Dr Sweetman is the current President of the Gabriel Marcel Society, Vice-President for North America of World Conference of Catholic University Institutions of Philosophy (COMIUCAP), and the editor of *Marcel Studies*. His books and articles have been translated into several languages, including Portuguese and Italian.

Tudor Petcu: I would like to start this dialogue by addressing to you a very simple question: What are some reasons for saying that Marcel's thought is unique?

Brendan Sweetman: Although Marcel is often neglected today, and his thought has been somewhat eclipsed by later movements of structuralism and postmodernism, his work contains a number of themes which remain of profound relevance for contemporary times. He emphasizes a number of ideas that have been influential in contemporary thinking in both philosophy and theology. These include the attempt to safeguard the dignity and integrity of the human person by emphasizing the inadequacy of the materialistic life and the unavoidable human need for transcendence; and the inability of philosophy to capture the profundity and depth of key human experiences, and so the need to find a deeper kind of reflection. He also draws attention to the importance of the experience of intersubjectivity, which

Marcel believes is at the root of human fulfillment, and which also finds expression in the transcendent dimension of human experience. He believes that this transcendent dimension cannot be denied without loss, and that it is by means of it that some of our most profound experiences find their deeper meaning. I think also that Marcel is one of the few contemporary thinkers who manages to do justice to the individuality of the human person, while at the same time avoiding the relativism and skepticism that has tended to accompany these notions, and that has plagued contemporary philosophy after Heidegger. We should also remember his effort to challenge the moral relativism and spiritual nihilism of his French rival, Jean Paul Sartre, and of other representative existentialist philosophers. He also argues for a "theistic existentialism," as an important counterpart, and indeed corrective, to the strident, hedonistic secularism of recent times.

Tudor Petcu: As we know, Gabriel Marcel was influenced by some major religious traditions. He was born as a Protestant. He received from his mother's side an education influenced by what we can call the liberal Judaism, and in 1929 he has chosen the conversion to the Catholic Church. Not least, some years later he declared and expressed his love and respect for the Orthodox theology and in this way we can talk about a real and strong ecumenical experience that Gabriel Marcel knew. How in your view did his entire spiritual journey influence his philosophy?

Brendan Sweetman: Marcel was not brought up in a particularly religious way, and it is probably accurate to say that he was not involved in institutional religion to any extent. However, he clearly had a religious sensibility, which is evident in his early work as well. This is illustrated by his open-mindedness to religious questions, particularly concerning the nature of the transcendent, the openness to Being, and the way that profound human experiences, such as fidelity and faith, can point to something significant about the nature of man that needs to be explained.

You do not see any of the close-minded attitude in him that is so evident in modern secularist writers who try to deny these aspects of the human condition, and who sometimes appear as if they are rationalizing their own denials. In addition, the direction of Marcel's thought made it possible for him to come to the point where a conversion to Catholicism made sense for him. He has told us in *The Philosophy of Existentialism* that he had worked out his ideas before he had the remotest thought of becoming a Catholic; later he came to the view that these ideas were consonant with the Catholic religion, even if they did not presuppose it and were not inspired by it. I suppose he was quite Orthodox (judging by our standards rather than those of his time), but I think he was not much impressed by fads, or attacks on theology or morality inspired by more liberal attitudes. He regarded liberal Protestantism as leaving one in an "ambiguous position," as he tells us in his autobiography, *Awakenings*. He strikes me as being quite careful in his approach to theology, and shows an honesty in his reflections that is also evident in his philosophy.

There is also quite an ecumenical spirit in his work, which you allude to, which no doubt came from his experiences with different denominations growing up, and he is quite critical of the disputes between Catholics and Protestants. He also has great affinity with the work of the Jewish philosopher, Martin Buber, and their occasional dialogue reveals a shared sensibility toward religious themes, which is not hampered by denominational differences.

Tudor Petcu: What would be the most important role that philosophy has played in Marcel's literature and theatre? On the other hand, do you think that there would be any similarity from a philosophical point of view between Marcel's literature and Dostoevsky's?

Brendan Sweetman: Marcel's work in philosophy and his work in theatre complement each other. I would not say that his philosophy plays a role in his theatre but rather than he uses theatre, as he has explained many times, to further work out, and sometimes to illustrate, ideas that are present in his philosophical work (see his *The Existential Background of Human Dignity*, where he discusses this topic at length). A key theme in Marcel's work is that there is a realm of human experience that is very difficult to capture, to describe, in philosophical analysis. This is the realm of mystery. It is a realm of a range of experiences that are a real and objective part of human life, yet when we attempt to describe them in an abstract, philosophical way, even with our best phenomenological efforts, something is lost in the description.

This realm includes the relationship between body and mind, the experience of our own embodiment, our concrete, personal contextual situation, and the "concrete approaches" involving experiences of fidelity, hope and love. Marcel believed that art and drama could help us to further reveal these experiences when dramatized in concrete situations, and so good drama can reveal something of the human condition beyond the level of conceptual knowledge. But philosophy too can give a description of, for example, fidelity; it is not an adequate description but it can help us to understand something of the experience. In this way philosophy and theatre complement each other. This is why in his philosophical work Marcel will often turn to discuss a scene from his plays to illustrate a point. My colleague in the *Gabriel Marcel Society*, K.R. Hanley, now retired from Le Moyne College (Syracuse, New York), has published several editions of his plays, and I am working on a new publication of several unpublished plays which will appear next year. We feel that it is important to put his plays before the world as a complement to his philosophical work. Unfortunately, many of them have been seldom or never performed, and this may be in part because they are a bit too philosophical!

I do think there is some similarity between Marcel and Dostoevsky in this sense: both of them are exploring philosophical ideas through literature, though Dostoevsky with considerably more literary brilliance and intensity than Marcel. But Dostoevsky is a novelist with a clear philosophical bent and his attempt to explore deep religious questions in his work, as well as to portray individuals who are confronted with intensely difficult moral experiences and choices, is similar to some of what Marcel is doing, especially in his plays. Dostoevsky, being a novelist, is not as interested in deeper philosophical questions, such as the relationship between experience and reflection, or between the body and mind, as Marcel is.

Tudor Petcu: Considering that Gabriel Marcel was influenced mainly by Kierkegaard and Bergson, how could we highlight the complementarity between these two philosophers and the Christian tradition in Gabriel Marcel's thinking?

Brendan Sweetman: Yes, this is a very interesting question. There are themes in both philosophers that are similar to Marcel's, though the influence of Kierkegaard on Marcel is not clear. Marcel does say that he had worked out most of his ideas before he had read Kierkegaard, and so he was not significantly influenced by him. In fact, Kierkegaard and Marcel are often thought to be opposed to each other in their general approaches to the question of God and religion. This is because although Marcel does not espouse the Thomistic approach to God, and does not focus on proofs of God's existence, or on the rational case for believing in God, he does emphasize the reasonability of the Christian worldview. This is often thought to differ from Kierkegaard who seems to place more emphasis on the commitment to what one believes than on the truth of what one believes. On this question I want to draw your attention to a new article on the relationship between Kierkegaard and

Marcel that appears in our new on line journal, *Marcel Studies*, and I recommend that your readers take a look if they wish to explore this question further.

I do think that Marcel was quite influenced by Bergson's distinction between experience and conceptual knowledge, especially the idea that conceptual thinking forces discreteness on experience, but that experience itself is not discrete. Unlike Bergson, Marcel would not say that time is necessarily in a flow; rather he developed the view that in the act of conceptual abstraction something is lost, that which makes our experience personal, and that which situates the self in a concrete context in existence. In this sense, there are no abstract objects; there are only particular subject's objects, i.e., objects that are involved with particular human subjects in concrete situations. I think Bergson helped him to arrive at this way of thinking about human experience and its relationship to reflection, and he does note that Bergson freed him from "the spirit of abstraction."

Marcel in general is very influenced by the Christian tradition in that many of his themes are those that concern the Christian view of the human person in one way or another, especially his focus on the transcendent as a key part of experience. He has always stressed this point right from the beginning of his work, many years before his conversion to Catholicism. One way he illustrates the transcendent dimension is in his analysis of human relationships and how they contain a transcendent dimension that not only helps to explain them but that makes them possible.

Tudor Petcu: Which would be the best philosophical understanding of the "metaphysical journal" written by Gabriel Marcel?

Brendan Sweetman: This early work of Marcel's is an unusually interesting philosophical text. It introduces us to Marcel's early inchoate thoughts and philosophical probings relating to most of his main concerns; indeed most of what were to become the major themes for which he is best known are introduced in these early attempts at philosophical reflection. A second reason the book is engaging is that it is written in a diary format, covering the period 1914–1923 of Marcel's early career, when he was first working out his ideas in philosophy. The entries range across the days and months of this time period, and provide a rare glimpse into a philosopher in action as he wrestles with a number of questions. Indeed, it is uncommon to see a philosopher's ideas published in this form. Yet there is some price to pay for exposure to Marcel's thoughts expressed in this cursory, tentative, and suggestive manner: a lot of excavation and reconstruction of his main claims and general position is required, and one can understand that some readers might not have the patience for this task. The book offers us an unusual insight into a philosopher at work, a philosopher thinking out loud as it were, in the same way we might watch a painter or a sculptor at work, and we should regard this as an opportunity perhaps rather than as a challenge.

It is here that Marcel first develops the distinction between experience and reflection, though he tends to explain it more in terms of the distinction between existence and objectivity, where existence describes the concrete situation of the individual, and objectivity refers to the attempt to explain this, and indeed to give primacy to conceptual knowledge. Marcel describes existence as "indubitable," and so it cannot be put into question, and he goes on from this basic theme to develop a strong critique of the approaches of Cartesianism and of idealism that splits the mind off from the body, and from the world, and then has a terrible problem getting them back together again. For Marcel, existence is prior to all conceptual thought, and so it is not possible to place it under any kind of doubt, and so therefore idealism, skepticism, and anti-realism all crumble. Existence is the very condition of any thinking whatsoever. He went on then to offer a very interesting account of sensation which rejected a standard scientific approach that tried to explain sensation as the reception of a message. Marcel offered a

critique of this view and argued that sensation testifies to our participation in existence, and that it cannot be explained in scientific terms because the scientific account always presupposes an underlying realm of sensation. The rest of his work is an elaboration of these key themes.

Tudor Petcu: Which were the main contributions of Gabriel Marcel to the evolution of French philosophy of the 20th century and how important would he be for some contemporary philosophical approaches?

Brendan Sweetman: I think that Marcel was quite an important thinker in the development of not only French philosophy, but European philosophy more generally, even though his work is somewhat neglected today because it does not fit in with the *Zeitgeist* of contemporary European intellectualism. He is perhaps best known for a number of key distinctions: mystery and problem, being and having, primary and secondary reflection, existence and objectivity, that capture something fundamental about the human condition, and that still have great relevance today. His work is a challenge, for instance, to the scientific view of the human person which is gaining ascendancy: the temptation to think that all human problems must have a scientific solution. His work is also a challenge to analytic philosophy in the Anglo-American world, a reminder that it is a mistake to think that all aspects of the human condition can be analyzed and understood in conceptual abstractions. At the same time, he is very keen to avoid subjectivism, irrationalism, and a kind of epistemological and moral relativism. This is one of the reasons his work will remain relevant in the 21st century.