

Biology Does Not Condemn Humanity to Violence

by

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Abstract

A brief history of the preparation of the Seville Statement on Violence (SSV) and a short exposition of its propositions are provided. The SSV was originated by ISRA (International Society for Research on Aggression), a UN-Committee launched in the late seventies of the past century. Which were the main reasons urging us to elaborate the Statement, which difficulties were found on the way and how was that first 'scientific' step towards peace finally achieved? Its final product, elaborated by more than twenty scholars from different scientific disciplines and from all continents, was presented in Seville in 1986, at the VI Coloquio Internacional sobre Cerebro y Agresión (CICA). Three years later, it was endorsed by the 25th General Conference of UNESCO, in Paris. Its main message is that violence and war are not genetically unavoidable, and that human nature does not oblige us to behave violently.

Keywords: violence, war, psychobiology, Seville Statement on Violence

INTRODUCTION

It is an honour and a privilege to be invited to participate in this International Conference on Nuclear Threats and Security, held at the Inter-University Centre of Dubrovnik, among this selection of distinguished politicians and scholars from so many countries from four continents.¹ I would like to acknowledge the support of the World Academy of Art and Science (WAAS), the European Leadership Network and the Dag Hammarskjöld University College of International Relations and Diplomacy. I would

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like to give special thanks for the invitation to take part in it to its main convener, academician Ivo Šlaus, President of the WAAS, for his efforts in enabling this project of acknowledging the fact that scientists have a very important role in the achievement of world peace, a process through the analysis of nuclear threats and security.

Within this context, it seems only adequate to remember that during the Cold War some politicians on both sides used their belief that war was highly likely to justify the manufacture and deployment of an increasing amount of nuclear weapons. Although the Cold War is over, war continues to be pervasive throughout the world, and there are those who see war as an inevitable consequence of the human nature, based on the belief that people cannot change, that peace is therefore impossible, and that the only thing that works is lethal and effective prophylactic of separation and overwhelming force. For instance, this “psychological trap” was recently described by Patrick Tyler (2012) related to a hawkish Israeli general.

In a wider context, many children, adolescents and young adults are currently exposed to different degrees of violent behaviour from postnatal violent experiences, violent social models and violent forms of entertainment. This devastating form of structural violence is becoming more and more integrated in our daily lives because of scientific ignorance and poor level of citizenship.

This “politically correct” culture of violence has survived in different forms because it is very appealing to both the public and the authorities. It relieves, in fact, the public from the responsibility of changing their life style and the authorities from changing an old, contradictory way of dealing with crime. This belief is so strong to allow the commercial-media system to promote essays, documentaries and fiction that support it and to ignore the information confuting it on the basis of theories accepted by natural and humanistic sciences. No wonder the public is uninformed and still accepts violence as an inevitable human trait.

We may feel collectively responsible for this perpetual acceptance of the current culture of violence and war in society as something unavoidable. In fact, some people say that war and violence cannot be ended because they are part of our biology, in the same way that they used to justify slavery and racial or sexist domination by claiming that they were biological and inevitable; in the same way that they were wrong in these latter justifications, it is also scientifically incorrect that peace is not possible.

This feeling was what drove us, scholars from all around the world and from many different disciplines, dedicated to research on aggression, to think that it was our responsibility as scientists to speak out on the basis of the latest information, although aware that conclusions in science are never final, science is a human cultural product which cannot be definitive or all-encompassing. An increased understanding of the relations between genes and environment allowed us to acquire a deeper understanding

of the bases of aggression, and lead us to elaborate the Seville Statement on Violence from 1986. Its main message stated that peace is possible and that wars and violence can be ended, making it clear that there is nothing in biology that stands in the way of making the world a place without war.

My present task will be to dedicate the core of my intervention to make a short historical comment on its genesis; the main reasons urging us to elaborate the Statement, the difficulties we found on the way and how we finally achieved that first “scientific step” towards peace, explaining what its main message is: even if we accept that humans may have a psychobiological propensity for aggressiveness, it does not indicate that these acts, aggression, violence, or war, are inevitable.

A PSYCHOBIOLOGICAL APPROACH

Biology is the foundation of all behaviour only in the way bricks and paper are the foundation of all (traditional) libraries, but the content of the library, whilst being printed on paper, is not otherwise dependant on the bricks and paper. Thus, biology is the means by which information is accumulated and transmitted both in day to day interactions between people (in the brain), and in the generation to generation transmission of adaptations right up to speciation information (the genome). But, it is the interaction with the environment that steers these changes. It is just as true to say that the environment is the foundation of the content of behaviour and that the interaction between the environment and the phenotype determines which behaviour will be selected, i.e. reinforced.

Behaviour, then, is the selection of what can be done (the phenotype) from what is available (the environment, including conspecifics) with the ultimate goal of maximum survival of current and future generations. In humans, survival of non-physical elements may be treated as highly as or higher than the physical: one’s reputation, legacy, knowledge, religion, people, country, political belief and so on may be the object of behaviour over and above one’s physical survival, inheritance and legacy (Robert Karl Stonjek, personal communication).

For the psychobiologist who studies brain mechanisms supposed to be involved in aggressive behaviour, conceptual as well as ethical, problems arise from the fact that research dealing with brain-behaviour relationships is both a research endeavour like any other and one that clearly differs from many others. It differs in that the data obtained, the interpretation given and the generalized conception of brain-behaviour relationships derived from them, contribute to shaping our vision of man, his “nature”, his being and his evolution. Conversely, this vision of ourselves, of our supposed “nature, is bound to somehow orient – unconsciously, or more deliberately – the way in which we construct the conceptual framework within which we elaborate our working

hypotheses and interpret the results obtained when verifying them. It matters all the more to be fully aware of these reciprocal relationships between personal convictions and actual scientific endeavour since our basic interest lies in a deeper understanding of the biological determinants of our own personality and behaviour, even though our experimental analysis is carried out – for obvious ethical reasons – on the brain of some animal species. The true weight and the real influence of our personal convictions clearly appear when, on the basis of one and the same array of available facts, but, admittedly, with selective emphasis put on some of them, some feel entitled to deliver, with regard to human aggression and violence, a “message” of necessity and fate, while others are led to deliver one of freedom, responsibility, and hope (for more precise questions related to this topic as well as many relevant individual features fruitfully subjected to psychobiological investigation see Karli, 1996).

TOWARDS THE SEVILLE STATEMENT

The elaboration of a document stating the scientific state of art on the field of human aggression and violence would give a needed message of hope to humankind, as opposed to the myth that it was something naturally inevitable. But the obstacles found in our attempts, however, illustrate the extent to which ideological preconceptions often interfere with an actual scientific endeavour. I want to mention some objectively revealing events (see Ramirez, 1997).

In the late 1970s, the International Society for Research on Aggression (ISRA) decided to launch a UN-Committee that, among other goals, would aim at organizing a series of symposia under the auspices of UNESCO. There was hope that these symposia would eventually lead towards a UNESCO statement on human violence, following the example of what had previously been achieved by UNESCO with regard to the notion of “human race”. A provisional programme was drafted and submitted to UNESCO. Both our Swiss colleague Pierre de Sénarclens and Mr M. Bow, at that time head of the Division for Human Rights and Peace and director-general of UNESCO, respectively, responded in a most favourable and encouraging way. But then, highly polemical discussions took place within UNESCO concerning our proposal, to the extent that Pierre de Sénarclens resigned from his UNESCO position (he went back to Lausanne to resume his post as professor of political science) and M. Bow sent a second letter telling our President that the proposed topic was too “touchy” to be dealt with under the auspices of UNESCO.

Later on, Carlos Chagas, at that time the President of the Pontifical Academy of Sciences, invited us to draft a motivated proposal for a Symposium devoted to “the biological and sociocultural determinants of human violence”. We soon heard that the Pope had read the proposal, that he fully approved of both its structure and general

spirit, and that he encouraged us to proceed. But then, after a long silence, we learned that the Pontifical Academy had come to the same conclusion as UNESCO: it was not timely to deal with the determinants of violence.

However, instead of giving up, we – scientists from very different disciplines – kept discussing it freely and openly. A working group was appointed in 1982, at the ISRA biennial Conference on Aggression in Mexico City. The main question we wanted to answer was whether the modern natural and social sciences knew of any biological factors that were an insurmountable or a serious obstacle to the goal of world peace. We exchanged the latest information about animal behaviour, psychology, brain research, genetics, anthropology, and other related sciences. Finally, after several years – at that time mail connections were not at all easily established among people geographically scattered throughout all the continents, when fax, e-mail or internet were not existent yet – a draft was elaborated and sent to all of us for study. Then, around twenty of us met in Seville and La Rabida. And after one week of seclusion – we were in a monastery, from where Columbus started his discovering trip to the New World – the final Statement on Violence was born. It was May of 1986, the International Year of Peace.

In plain words, the SSV says that peace is possible and that wars and violence can be ended, making clear that there is nothing in biology that stands in the way of making a world without war. War is not in our genes, as stated very expressively by Eibl-Eibesfeldt (1979), and we need not accept human aggression as a fate; as his mentor, Nobel Price laureate Lorenz, pointed out (1963), “We shall not improve our chances of counteracting [intra-specific aggression] if we accept it as something metaphysical and inevitable, but on the other hand, we shall perhaps succeed in finding remedies if we investigate the chain of its natural causation.” Far from condemning humanity to war, thus, biology makes it possible to end violence and the suffering it causes and, consequently, to achieve peace (see Adams, 1991; Ramirez, 1994, 1996, 2003).

Afterwards it has been successfully endorsed and published by many scientific organizations around the world. UNESCO itself, by the decision of its General Conference at its 25th session (Paris, 16.11.1989), endorsed it and ordered its dissemination. It was followed by the creation of the UNESCO’s Culture for Peace Programme in 1994, as well as by the UNO Declaration and Programme of Action on a Culture of Peace adopted by the General Assembly in 1999, proposing a Decade for a Culture of Peace, which ended in 2010.

PROPOSITIONS RELATED TO VIOLENCE

Even if we were aware that many other issues could also be fruitfully addressed from the standpoint of our disciplines, the Statement was specifically focused on individual and social violence, with special consideration of war.

Related to individual violence, several propositions are stated:

1. *Violence is not in our genes.* It is not genetically programmed into our human nature. While genes are involved at all levels of nervous system function, they provide a developmental potential that can be actualized only in conjunction with the ecological and social environment. Behaviour is controlled not only by the characteristics of the nervous system, but also largely by external events surrounding and impinging upon that nervous system. For instance, human beings possess structures conducive to the use of language, that is true, but without a “linguistic environment” those structures would not function. This is even clearer in the case of aggression. Virtually all data on its control show that the genetic contribution to aggression is strongly modulated by environmental factors. Our first genetic directive is survival – and we will do anything to survive at all costs. If we have to kill others, we will; but if it is not necessary, we will not. Except for rare pathologies, the genes do not produce individuals necessarily predisposed to violence. Neither do they determine the opposite. While individuals vary in their predispositions to be affected by their experience, it is the mutual interaction between their genetic endowment and conditions of nurturance that determines their personalities and their behaviour. While genes are co-involved in establishing our behavioural capacities, they do not by themselves specify the outcome. Propensity and predisposition do not necessarily lead to specific behaviour. In our case, feeling aggressiveness does not necessarily mean behaving aggressively.
2. *Violence is not our evolutionary legacy.* Aggressiveness is not a necessary consequence of human nature. In the course of the human evolution there has not been a selection for aggression more than for other kinds of behaviour, such as altruism or pro-social behaviour. All humans have a propensity to be kind, helpful, cooperative and loving (“pro-social”), and all humans have a propensity to be selfishly assertive and even aggressive to their fellows as well: neither inevitably results in behaviour. For instance, “dominance” involves social bonding and affiliations; it is not simply a matter of the possession and use of superior physical power, although it does involve aggressive behaviour.
3. Although both *pro-sociality and aggressiveness are influenced* to some extent by *constitutional factors, experience and moral rules and conventions of the culture* are the main factors. In this direction, the theory of kin selection developed by Bill Hamilton in the 1960s says that insects such as ants evolved to become altruists because co-operating with their kin helped individuals promote their own genes. It does not matter if you give up the opportunity to reproduce yourself, the theory goes, so long as close relatives spread your genes instead. Hence kin selection was invoked to help explain social and cooperative behaviour across the animal kingdom, even in humans (Hamilton, 1963). And, according to the

more recent theory of social evolution proposed by Ed Wilson and his collaborators Martin Nowak and Corina Tarnita (2010), generosity, as mandated by group selection, is humanity's secret ingredient, continually in conflict with more selfish instincts in each one of us. This robust defence of kin selection, or inclusive fitness, suggests that humans are at least a "eusocial" species (the technical term for displaying altruistic behaviour), like ants and termites. But people are more complicated than ants: human selflessness and cooperation, however, is of a different sort, also involving the interaction of culture and sentience, not just genetics and environment (Wilson, 2012). In all well-studied species, status within the group is achieved by the ability to cooperate and to fulfil the social functions relevant to the structure of that group.

4. *Humans do not have a "violent brain"*. While we do have the neural apparatus to act violently, it is not automatically activated by internal or external stimuli. Like higher primates and unlike other animals, our higher neural processes filter such stimuli before they can be acted upon. How we act is shaped by how we have been conditioned and socialized. There is nothing in our neurophysiology that compels us to react violently. As our title states, aggressiveness can be tamed.

PROPOSITIONS RELATED TO WAR

A special focus on war (see Hinde, Nelson & Wrangham, 2010; Ramirez, 1987, 1995) as a specific kind of social violence leads us to state the following:

1. *We have not inherited a tendency to make war from our animal ancestors*. Although fighting occurs widely throughout animal species, only a few cases of destructive intra-species fighting between organized groups have ever been reported among naturally living species; for instance Jane Goodall (1986) described chimpanzees engaged in something that may look like war. But none of these aggressive interactions involve the use of tools designed to be weapons. Normal predatory feeding upon other species cannot be equated with intra-species violence. Peace predates warfare in humanity's evolution, as attested in the morphological development of our primordial ancestors. "Pre-human peace and peace-making, as discernible in prehistoric remains and primate conduct, point to the irreplaceable roles in making us the species we are, and without which we would not exist as we do" (Adolf, 2009, pp. 9). Warfare does not occur in other animals. It is a peculiarly human phenomenon.
2. *War is not a necessary consequence of the human condition either*. The fact that warfare has changed so radically over time indicates that *it is a product of culture*. Its biological connection is primarily through language, which makes possible the coordination of groups, the transmission of technology, and the use

of tools. War is biologically possible, but it is not inevitable, as evidenced by its variation in occurrence and nature over time and space. There are cultures which have not engaged in war for centuries, and there are cultures which have engaged in war frequently at certain times and not at others. According to some anthropologists, for instance, structural violence emerged in fact only in the Late Neolithic period, as a purely cultural innovation due to the socially stratified human settlements of food producing cultures, having been mostly unknown in previous Palaeolithic hunter-gathering cultures (Fry, 2006, 2013). Recent findings of lethal events among mobile forager band societies have shown that nearly half of the sample societies (10 of 21) had no lethal events perpetrated by two or more persons, and only one third of those killings investigated were done by several people. These numbers do not suggest hunter-gatherers were going out looking for trouble with their neighbours, but, on the contrary, that only a minority of the incidents would stem from war (Fry & Söderberg, 2013). Along with attitudes and actions of war, thus, efforts toward cooperation and peaceful endeavours consistently existed during the whole of the human existence.

3. Even more, humans have used wars as a means to obtain resources or satisfy their ambitions, but we are fully capable of finding other, *better ways to settle disputes*. Conflicts of interest between peoples or nations have been, and should be, resolved by peaceful negotiation. This is one of the main reasons why the United Nations were set up: to maintain international peace and security, to develop friendly relations among nations and to achieve international cooperation in order to “save succeeding generations from the scourge of war” (UNO Chart, 1945).
4. Far from being something “instinctive” or caused by any single motivation, *war is usually a multifactorial product*, with a primacy of cognitive factors. Modern war involves institutional use of personal characteristics such as obedience, suggestibility, and idealism; social skills such as language; and rational considerations such as cost calculation, planning, and information processing. The technology of modern war has exaggerated traits associated with violence both in the training of actual combatants and in the preparation of support for the war in the general population. As a result of this exaggeration, such traits are often mistaken to be the causes rather than the consequences of the process (Hinde, Nelson & Wrangham, 2010).
5. *War is an institution*, with numerous constituent roles, each associated with specific rights and duties. These roles include the politicians, the commanders, munitions workers, transport workers, health workers, and many others, as well as combatants. Influences from many directions may cause politicians to believe that it is their duty to lead their country into war and in doing so they create duties for the generals, who create duties for the combatants, and so on. Each does

what (s)he does primarily, though not entirely, because it is his/her duty in the role that (s)he occupies in the institution of war. The institution of war is supported by the military-industrial-scientific complex, whose power even politicians may not be able to resist (Ramirez, 1987).

NEXT STEP

This is the first step and the most important of our tasks: concluding that biology does not condemn humanity to violence and war, and that humanity can be freed from the bondage of biological pessimism and empowered with the confidence to undertake the transformative tasks needed now and in the years to come.

Of course, we could also consider other important points, such as the boundaries between “us and them” (Pittinsky, 2012), stressing the genetic uniformity of the human species. The increased connectedness of peoples around the world inspires a vision of a future in which the common humanity of all peoples will be globally recognized, following the final message of the Russell-Einstein Manifesto (1955): “Remember your humanity, and forget the rest!”

Once we become aware that violence is avoidable, a second important step has to ensue: the analysis of how to achieve the culture of peace that we scientists are looking for (Ramirez, in press). It is not an easy task at all, but we should never forget that peace is possible and that, in order to influence our surroundings positively, we must learn to develop the inner peace within our minds. Yes, finishing with the same consideration which ended the SSV, we may remember that just as “wars begin in the minds of men”, peace also begins in our minds. The same species who invented war is capable of inventing peace. The responsibility lies with each of us.

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Sažetak

U članku je opisana povijest pripreme *Seville Statement on Violence - SSV* (*Seviljske izjave o nasilju*, op. ur.) i ukratko su izložene najvažnije tvrdnje. *Seville Statement on Violence* je nastala zahvaljujući *International Society for Research on Aggression ISRA* (*Međunarodnom društvu za istraživanje agresije*, op. ur.), UN-ovog odbora koji je pokrenut krajem sedamdesetih godina prošlog stoljeća. Koji su glavni razlozi koji su nas potakli da obrazložimo Izjavu, koje poteškoće su se pojavile i kako je postignut prvi 'znanstveni' korak prema miru? Konačni zaključak koji je razmotrilo više od dvadeset znanstvenika iz različitih znanstvenih disciplina i sa svih kontinenata, predstavljen je na *VI. Coloquio Internacional sobre Cerebro y Agresión - CICA* (*Međunarodni simpozij o mozgu i agresiji*) u Sevilli 1986. godine. Tri godine kasnije zaključak je potvrđen na 25. Općoj konferenciji UNESCO-a u Parizu. Njegova glavna poruka je da nasilje i rat nisu genetski neizbježni i da nas ljudska priroda ne prisiljava na nasilno ponašanje.

Ključne riječi: nasilje, rat, psihobiologija, *Seviljska izjava o nasilju*

