

**HUMAN VIOLENCE:
CAUSES AND JUSTIFICATION**

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very few people chose war. They chose selfishness and the result was war.

Dave Dellinger

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Introduction

This book is about the causes of human violence and the benefits and modes of action for justifying violence. Understanding these issues is hampered by deep-rooted prejudices, and the book also contains attempts to refute these prejudices.

Chapter 1 deals with the causes of behavior; it is necessary to understand them in order to understand both violent behavior and its justification. I also explain some mistakes that help understand some seemingly useless or self-defeating violent behaviors.

I discuss in Chapter 2 some causes of violence related to the use of and competition for resources. Many of them are very primitive causes (also observable in non-social animals) but still very important to human violence.

Chapter 3 concerns vengeance and punishment, also quite primitive behaviors. Here I begin to consider the tendency to attribute the causes of behavior to the most convenient motivations.

Chapters 4 and 5 are about some causes and consequences of life in society, and their relationship to the inhibition and promotion of violence.

Chapter 6 deals with other important consequences of social life, social hierarchies and rights, and their relationships with each other and violence. Chapter 7 is an extension of some issues covered in Chapter 6: besides it being useful to be powerful, so it is to look powerful. This creates a new cause of violence and a broad scope for deceptions.

Chapter 8 introduces a new, typically human, cause of violence: its justification. Here I explain what justifications are and what they are for, and some ways in which they can be misleading.

In Chapter 9, I explain some benefits of having erroneous beliefs, especially the facilitation of deception.

In chapter 10, I set out to explain the convergence in beliefs and delusions of individuals belonging to “the same group,” a convergence that helps understand the success of many justifications.

To explain the relationship of morality to violence and its justification I found it necessary to say something about the origins of moral judgments and rules. For practical reasons, it was easier to start with the relationship between morality and violence, to which I devote Chapter 11, and continue with the origins of morality and its justifying and manipulative usefulness, to which I devote Chapter 12.

When I say in this book that a violent behavior has some use, I mean that it provides some benefit to the individual who performs it, regardless of whether it also causes harm to others or to the same individual. In no case do I (consciously) intend to express approval or disapproval of the behaviors that I attempt to explain.

Please be aware that some of the quotations included in this book are translations from Spanish, Spanish not being the original language in which they were written.

Finally, I would like to express my gratitude to Carlos Cortizo Amaro, José Antonio Cortizo Amaro and Lourdes González Sotelo , who made valuable suggestions on previous drafts of this book.

1 On the causes of behavior

At least since Freud, we know that people have a poor knowledge of their own motivations. What people actually do is a matter of great interest, and why they do what they do is another one. How they interpret and explain their own actions is a third one.

Martin Daly and Margo Wilson

Curiously, people seem to be unaware of their own unawareness, rarely answering "I don't know" when asked to explain their decisions.

Wilson and Bar-Anan

Here are the summaries of two studies on decision-making:

Study 1: 1,112 decisions made by eight Israeli judges responsible for deciding whether or not to accept requests from prisoners regarding parole (in most cases, requests for parole) were analyzed. Over the course of each working day, in which on average around 40 decisions were made, each judge stopped for a mid-morning break and a longer break for lunch at midday. These breaks divided the working day into 3 periods. The authors of this study calculated the percentage of favorable responses to prisoner requests according to the order number of each case, discovering the following:

The percentage of approvals of the first case of the day was approximately 65%. Between the first and the last case of the first period the percentage descended, with ups and downs, until almost 0% at the end. The percentage of approvals of the first case of the second period was again 65%, and it again descended, with swings, to almost 0% at the end. This same pattern was repeated in the third period.¹

Study 2: This study was experimental. The subjects, 52 German judges or lawyers, were asked to say what sentence was deserved by the defendant in a hypothetical but realistic case built for the experiment. The documentation

¹ Danziger *et al.* (2011). There is no clear explanation for this result, but the authors think it can be related to other experiments, according to which some decisions seem to consume some limited mental resource whose scarcity makes it more likely to make decisions in the simplest way: accepting the current situation, which in the case of the experiment explained above would be rejecting the request. Resting or eating could help to recover that mental resource.

provided to the subjects lacked the penalty that the prosecutor demanded. To add it, each subject was asked to roll two dice, and to consider that the sum of the dice was the sentence, in months of probation, the prosecutor requested. This patently random way of determining the prosecutor's request was justified as a means to ensure that the request did not influence the decision of the subjects. The dice were manipulated, so that half of the subjects got a 1 and a 2 and another half got a 3 and a 6. The former proposed a sentence of 5.28 months, while the latter proposed 7.81 months, on average.²

These studies illustrate two interesting facts. The first is that the notion that "man is a rational animal" is far from reality. According to the authors of the study 1 it is often assumed that judges make their decisions in a "rational, mechanical, and deliberative manner;" but these studies show that even they are influenced, when taking their decisions, by "extraneous factors." Many studies show, instead, that most human decisions are made not by deliberation, much less by logical reasoning, but by unconscious intuitive processes based on calculations of expected pleasure and pain, related to emotions and mental associations and much cognitively cheaper, that is, requiring a much smaller capacity and mental effort, than deliberation and reasoning.³

The second interesting fact is that each individual performing a behavior does not know its causes. The authors of these studies did not ask their subjects the reasons for their decisions, but we can safely assume that, if they did, the subjects would not answer, even if they were honest, that they took their decision, in part, because "I have not eaten nor rested for x time" or "I got a 3 and a 6 when I rolled the dice."

² Englich *et al.* (2006, study 3). Such results are explained as a consequence of a common cognitive bias called "anchoring and adjustment." When you have to make a numerical evaluation and perceive a number, it usually seems that you cannot help unconsciously taking that number (the "anchor") as a starting point for evaluation, even if you know that the number has been produced randomly. Then, if you feel unsatisfied with that number, you add or subtract ("adjust") to get another number that satisfies you, and then you take that number as the result of the evaluation (Gilovich *et al.*, 2006; Kahneman, 2012).

³ Zajonc (1980), Haidt (2001), Damasio (2004), Gilovich *et al.* (2006), Kahneman and Tversky (2007), Kahneman (2012), Crockett (2013), Cushman (2013), Slovic *et al.* (2013). (According to Crockett [2013], in the brain there are different systems involved in decision making, whose proposals are integrated through processes comparable to a voting, as if each system were an expert with a number of votes: the alternative that gets most votes is chosen.)

Many studies show that unconscious mental activity is a major cause of behavior. This prevents us from knowing the causes of human behavior by simply asking, “Why did you do it?” Even if the person who is asked is completely honest, whatever the answer is it may not be a complete explanation of the causes of his or her behavior, because one of the causes, and a very important one, is the unconscious mental activity⁴, which by definition is not accessible to (conscious) knowledge. As psychologist and Nobel laureate D. Kahneman says, after making a comment on the study 1: “Because you have little direct knowledge of what goes in your mind, you will never know that you might have made a different judgment or reached a different decision under very slightly different circumstances.”⁵

Of course, something is then left unexplained. According to Kahneman:

“You may not know that you are optimistic about a project because something about its leader reminds you of your beloved sister, or that you dislike a person who looks vaguely like your dentist. If asked for an explanation, however, you will search your memory for presentable reasons and will certainly find some. Moreover, you will believe the story you make up.”⁶

What remains to be explained are the universal (or almost universal) tendencies to make up explanations and believe them. A third study may be helpful:

Study 3: a set of 342 real decisions on whether to impose protective measures, such as bail, were analyzed. Decisions were taken on average in less than 10 minutes. According to the analysis, about 95% of the decisions seemed to be made by a *very simple* decision system compared to the legally prescribed one. In summary, precautionary measures were taken if taken or requested by the police, the prosecutor or a previous court.⁷

This way of deciding had two virtues. I have already highlighted with italics the first one: its simplicity and economy, compared to the legally prescribed one. The second was that, despite its simplicity, it could still play an important role: to protect the judges of the possible charge of failing to take precautionary measures if the defendant committed a new crime. If such a charge

⁴ Nisbett and Wilson (1977a).

⁵ Kahneman (2012, p. 225).

⁶ Kahneman (2012, p. 415).

⁷ Dhami (2003). Konecni and Ebbesen (1984) discuss similar results.

was made, the magistrates could claim that neither the police nor the prosecutor nor previous courts had adopted or requested such measures.

Magistrates as the ones in this study were asked how they had taken their decisions. These were typical responses: the decision “depends on an enormous weight of balancing information, together with our experience and training;” “the decisions of the magistrates are indeed complex, each case is an ‘individual case’.”⁸

Providing these answers, if they were believed, had at least two advantages: hiding the defensive motivation, which did not comply with the legal prescriptions, and defending their image of professionals who make very complex decisions in a “rational, mechanical, and deliberative manner.”

The utility of inventing explanations for your behavior is that, to the extent to which they succeed, they can make the listener believe what is most convenient for you, for example to enhance your reputation. And the main utility of believing the explanations you invented is, as I will argue in Chapter 9, that this way you are more convincing.

The importance of unconscious mental activity not only leads to not knowing the causes of each particular behavior (including speech), but to also not knowing many other things: you know what you think, feel, want and intend consciously, but do not know why⁹, and do not know what you want and intend

⁸ Gigerenzer (2008, p. 14).

⁹ After Freud, but many years before the publications from the 1970s that showed how badly people know the motivations of their behavior (as Nisbett and Wilson, 1977a, 1977b), B. Russell wrote about how people do not know the causes of their behavior and their beliefs as if it were the most natural thing in the world. Speaking of the belief that knowledge of the world leads to pessimism, he wrote: “I am persuaded that those who quite sincerely attribute their sorrows to their views about the universe are putting the cart before the horse: the truth is that they are unhappy for some reason of which they are not aware, and this unhappiness leads them to dwell upon the less agreeable characteristics of the world in which they live” (Russell, 1932, pp. 27-28).

These words of Russell remind me of a fact witnessed and reported by Damasio (2003, pp. 67-68). A surgeon was electrically stimulating certain points of the medulla of a woman, to relieve symptoms of Parkinson’s. By stimulating a certain point, just 2 millimeters below other one whose stimulation had caused a great relief, the following occurred: “The patient stopped her ongoing conversation quite abruptly, cast her eyes down and to her right side, then leaned slightly to the right and her emotional expression became one of sadness. After a few seconds she suddenly began to cry. Tears flowed and her entire demeanor was one of profound misery. Soon she was sobbing. As this display

unconsciously either.¹⁰ So much so that you can take actions you are consciously trying not to take.¹¹

The behavior of animals and humans is comprised of muscle movements. These are the muscle response to orders received (in a physical-chemical “language”) from the nervous system, mainly the brain. These orders result from the reaction of the nervous system, as found at any moment, to environmental circumstances of all kinds, external and internal, that affect it, especially those called “information.” The state of the nervous system at any moment is the result of its continuous development or change, which in turn is

continued she began talking about how deeply sad she felt, how she had no energies left to go on living in this manner, how hopeless and exhausted she was... The physician in charge of the treatment realized that this unusual event was due to the current and aborted the procedure. About ninety seconds after the current was interrupted the patient's behavior returned to normal.”

¹⁰ Bargh and Chartrand (1999), Custers and Aarts (2005, 2010). According to Wilson and Bar-Anan (2008, p. 1046): “Social psychologists have discovered an adaptive unconscious that allows people to size up the world extremely quickly, make decisions, and set goals—all while their unconscious minds are otherwise occupied.”

¹¹ Wegner *et al.*, (2003). The following case (commented by Wegner *et al.*, 2003) is a good proof of the existence of unconscious intentions. In the 1980s, a technique was developed to help people with impaired communication, as some autistic people. A trained facilitator sat next to the person with difficulties, the communicator, and held her or his hand on a keyboard. The role of the facilitator was to help carry out movements whose weak start he or she detected in the hand of the communicator. Facilitators were instructed not to influence the responses of communicators, and they ensured they followed such instruction. Thus, noting letter by letter (as in Ouija boards), people who had never said a word came to communicate ideas of some length.

However, studies in the 90s by various authors have left little doubt that facilitated communication was a fraud. In the most definitive of these, researchers asked questions through headphones to communicators, and asked different questions to facilitators. The responses generated were answers to questions heard by the facilitators. However, either the hundreds of facilitators who claimed to not have influenced the answers lied, or the fraud was, at least partly, an unintentional fraud. Apparently, the hands of many facilitators performed certain complex tasks while their owners *consciously tried not to make them*. Unless hands can establish their own work plans, these should come from some kind of unconscious intentions.

the result of a continuous interaction between the genes of each individual and the internal and external environmental conditions that affect them. Finally, the genes that living beings possess are those and not others as a result of biological evolution.

Within this chain of causes and effects I will focus my attention on what, strictly or figuratively, we can call “learning”: learning per se, which affects each individual separately, and implicit learning that results from biological evolution and affects species and populations, and is often called “adaptation.” We can say that what an individual is and knows at all times is largely a result of two types of adaptation / learning: one that affected their ancestors through evolution, and that is encoded in his or her genetic information, and one that each particular individual carries out during his or her life and results from the reaction of his or her particular adaptation and learning capabilities to his or her particular circumstances.

The behaviors of the simplest animals, and the simplest behaviors of the most complex ones, are called “reflexes.” Whenever the appropriate stimulus is presented, the (innate) reflex is performed. More complex behaviors, however, are variable, and they are not only influenced by the stimuli, but also by information obtained in the past through learning.

This learning per se, which modifies and is made by the nervous system of each individual possessing such a system, occurs in ways that are often more or less complex variants of the following: when an individual detects that a certain thing A (object, behavior, etc.) generally precedes thing B (e.g., obtaining food, as in Pavlov’s experiments, or any pleasure or pain) and so A becomes a predictor of B, the individual learns to associate A with B and to respond to A as he or she does to B. Pain and pleasure are sensations we try to avoid or experience again, respectively. Many circumstances produce pain or pleasure innately, without learning. Throughout our life, animals with a nervous system store in their memory information about what circumstances end up producing pain or pleasure, and to what extent they do; i.e., information about what circumstances are good indicators of future pain, and then we learn to avoid them, and what circumstances are good indicators of future pleasure, and then we learn to look for them.

Another somehow different type of learning (to which the second quote from Kahneman is referred) is learning by mere mental association: whether an association between mental representations of two people or things exists, for example due to their *similarity* or because you have seen them together, the

positive or negative attitude you have towards one of them can be extended, to some extent, to the other.¹² This form of learning is supposed to be less important than the previous one, but it can explain some well-known facts, such as the advertising tactic of associating the product you want to sell to something good, and the tendency to “kill the messenger.” In the United States, for example, several weathermen have been attacked, reported to the police and even threatened with death, after they were blamed for the bad weather.¹³ It is likely that mental associations are the cause of other strange results in some studies, such as that “physical warmth” (like the one of a cup of hot coffee) promotes interpersonal warmth¹⁴, and that the one’s name can sometimes influence where to live and what profession to choose.¹⁵

The influence of mental associations in decisions is important not only because it helps us understanding decisions, but also because it helps us understanding the use of arguments, explanations and justifications, many of which are often called “reasoning.” What you hear people say activates in your mind the ideas most associated with it, but not others. As these “activated” ideas—accessible at present—and not all stored in your memory, are the ones you use to make decisions, a way to manipulate the behavior of others is saying things that trigger certain ideas in their minds while taking them away from other ones¹⁶:

¹² Walther (2002), Wimmer and Shohamy (2012).

¹³ Cialdini (2007, pp. 188-190).

¹⁴ Williams and Bargh (2008). According to these authors, the association between these two kinds of warmth can derive from the fact caregivers of children usually provide them with both, in separate actions or even in the same physical contact.

¹⁵ Pelham *et al.* (2002). This fact is interpreted as follows: the positive affect that one usually has to oneself is transferred to things associated with oneself, as one’s name, and from there it is transferred to what contains or resembles it.

¹⁶ An example of this is the fact that the former Ministries of War have been renamed as Defense Ministries. Another case is explained by Russell (1968, pp. 56-57): “The United States has attempted to defame the guerrilla movement by labeling it the ‘Vietcong,’ meaning ‘Vietnamese communists’. No group in South Vietnam uses this abbreviated name to refer to itself. Those who chose this name for the guerrillas failed to consider a very important point. They relied on the fact that in the USA, the word ‘communist’ would alarm the general public and serve to defame any movement; however, they did not realize, until too late, that in other countries the word communist had favourable connotations. With this attempted smear campaign, the USA actually reinforced the good

“The reasons that people give to each other are best seen as attempts to trigger the right intuitions in others. For example, here is a quotation from an activist arguing against the practice, common in some cultures, of altering the genitalia of both boys and girls either at birth or during initiation rites at puberty: ‘this is a clear case of *child abuse*. It’s a form of *reverse racism* not to *protect* these girls from *barbarous* practices that *rob* them for a lifetime of their *God-given right* to an *intact body*’ (...). These two sentences contain seven arguments against altering female genitalia, each indicated in italics. But note that each argument is really an attempt to frame the issue so as to push an emotional button, triggering seven different flashes of intuition in the listener. Rhetoric is the art of pushing the ever-evaluating mind over to the side the speaker wants it to be on, and affective flashes do most of the pushing.”¹⁷

Understanding the causes of human behavior could be improved if, in addition to knowing something about how we make decisions, we also knew something about why we do it like that and not in other ways. We know, for example, we typically seek pleasure and avoid pain; but why some things and not others, produce pleasure or pain? Each individual, at every moment, is the result of a continuous interaction between genetic information and his or her environment. Environmental influences are diverse¹⁸, and there is no theory to explain them in a unified way. Instead, the fact we have some genes and not others, with some effects and not others, can be explained quite well with the help of the theory of biological evolution.

According to this theory, the average genetic characteristics of populations and species vary over time due to various causes or evolutionary forces. All of

image of communism in South East Asia by associating it with national liberation movements and popular movements calling for independence and social justice. It is ironic that, once this error became clear, the USA attempted to rectify the situation by giving the liberators another name. According to the 5 June 1962 edition of the New York Times, the United States Information Agency had sponsored a contest ‘to give a new name to the Vietcong guerrillas’, admitting that it didn’t think ‘communist is the type of a name to inspire hatred among the country’s illiterate masses’. A cash prize was offered to whoever could come up with a ‘colloquial peasant term implying disgust or ridicule’.”

¹⁷ Haidt and Björklund (2008, pp. 191-192).

¹⁸ Aggression is favored, for example, by heat (Renfrew, 2005; this is one of the reasons why climate affects violence, especially collective violence, according to Hsiang *et al.*, 2013), noise (Renfrew, 2005) and some nutritional deficits (Gesch *et al.*, 2002).

them but one produce changes more or less randomly, irregularly, in a non-directional way.¹⁹ Therefore, no matter how well they are known, they do not help us much to predict how living beings are made and behave. With the other, called “natural selection,” the opposite occurs. The changes it causes have a direction, and the result is that the changes produced by the set of all evolutionary forces have the same direction (this may be an acceptable simile: if a group of players hit a ball occasionally, and one of them attempts to move it towards the north while the others hit randomly, the ball will tend to be displaced northward, albeit very irregularly).

The direction is this: increased reproduction of individuals (and usually longer survival as a requirement for reproduction). Or, more precisely, increased reproduction of genes individuals have. Different individuals may carry copies of the same gene, mainly as a result of inheritance from a common ancestor. Thus, the more closely related two individuals are the more likely they have many identical genes. Hence, improving the reproduction of one’s genes often requires favoring the most related individuals.

Unfortunately for easy understanding of the causes of behavior, biological evolution or evolution by natural selection is a rather imperfect designer; i.e., it suffers important shortcomings in its apparent goal of producing individuals increasingly able to reproduce their genes. Knowing these imperfections improves, therefore, that understanding.

One of the shortcomings is that evolution by natural selection acts on the *average* genetic characteristics of populations and species, but not on each individual’s genetic characteristics. Regarding almost all measurable characteristics, including personality traits²⁰, most individuals have average values, while others have values separated from the average, and yet a few others have extreme values. This is true also in the case of genetic characteristics, and it implies that, at best, only a part of the population, but not all, may possess optimal genes regarding a certain characteristic.

Another fact that can be considered an imperfection is what I will call “evolutionary inertia” and that resembles cultural inertia: the average genetic change caused by natural selection is slow, at least compared to usually quick

¹⁹ Mutations are an example of an evolutionary force of this type, although they are much more important as a source of genetic diversity on which other forces, such as natural selection and genetic drift, can act.

²⁰ “Almost all personality traits show a frequency distribution that approximates a bell curve”, according to Haidt and Bjorklund (2008, p. 210).

environmental changes, and it causes a mismatch between populations and species and their environment. Evolution by natural selection almost always lags behind environmental change: if a population were to be well adapted (with respect to their genes, to survive and reproduce in an environment), any environmental change that would affect it would cause again a mismatch, even if small. As there are indeed continuous environmental changes, populations usually never get to be perfectly adapted.

This yields an important result: species have been provided by evolution of quite appropriate genes to adapt not to their current environment, but to environments in which they lived in a variable period of their past.

Other apparent imperfections, common to all types of designers, result from the fact that it is not normally possible to simultaneously maximize all the characteristics of interest of the object designed. For example, it is not possible to maximize the speed and acceleration of a car while reducing its price and fuel consumption. Designers, including evolution, can only hope to maximize the overall quality of their designs, which are necessarily compromise designs. The construction and operation of the brain, for instance, are costly²¹, and, to the extent that evolution has been a good designer, it will have improved the brain only while the increase of profit produced by the improvement exceeds the cost increase.

This is one reason why the role of reasoning in decision-making is small. Logical reasoning allows for true conclusions from true premises, but in our evolutionary past such a procedure surely had no or insignificant use, since mathematics, physics and logic exams and other similar situations are very recent inventions. This being so, and the construction and operation of the brain being costly, reasoning is not expected to have been promoted too much by evolution. And indeed, the majority of people's ability for logical reasoning seems to be far more limited than many researchers had assumed.²²

Also, that ability *alone* cannot lead to any decision, for their role in decision-making is to provide new information deduced from previous information, but that only works if you have preferences²³ (which to a great

²¹ According to Potts (2011), the energy consumed by the brain is about 65% of the total energy consumption in babies, and no less than 20 or 25% in adults, although brain mass represents only 2% of adult body mass, on average.

²² Tversky and Kahneman (2006), Johnson-Laird (2010), Kahneman (2012).

²³ Hence some brain injuries damage the quality of decisions without altering the ability of reasoning (Damasio, 2004).

extent are unconscious). A weather forecast is information that can influence behavior, making you, for example, take an umbrella with you, but that happens only if you prefer not to get wet. Similarly, knowing, by reasoning, which is the correct answer to a mathematical problem allows you to answer it correctly, but doing so requires some motivation that reasoning does not provide. As the title of an often quoted scientific article says, “preferences need no inferences.”²⁴ And, as Hume said, “‘tis not contrary to reason to prefer the destruction of the whole world to the scratching of my little finger.”²⁵

Although I have said some behaviors such as reflexes are innate and other are learned, there is actually a gradation: some behaviors are innately easier to learn than others.²⁶ This gradation occurs because in the evolutionary past of each species there was also a varying degree of sureness regarding the appropriateness of a certain response to a certain situation. The surer it was in that past that certain behavior was the most appropriate one in a given situation, the more easily individuals learn to respond to this situation with that behavior. If natural selection were a designer who instructed his creatures through the instructions on their genes, we could say that, for situations where it was clear what was the appropriate response, he gave categorical orders, like “feel fear if you see a group of men approaching with sticks.” But the less clear it was what the most appropriate response was, the more freedom the designer had to give them,

²⁴ Zajonc (1980).

²⁵ As quoted by Haidt (2001, p. 824). According to Russell (2002, p. 10): “‘Reason’ has a perfectly clear and precise meaning. It means choosing appropriate means to an end to be achieved. It has nothing to do with the choice of ends. But the enemies of reason do not realize this, and think that advocates of rationality want reason to dictate ends as well as means. There is nothing in the writings of rationalists to justify this position. There is a famous sentence: ‘Reason is, and ought only to be, the slave of the passions’. This sentence does not come from the works of Rousseau, Dostoevsky or Sartre, but from that of David Hume. It expresses an opinion that I, as every man who tries to be rational, entirely approve. When I am told, as it is often the case, that I hardly take into account the role emotions play in human affairs, I wonder what driving force the critic thinks I consider dominant. Desires, emotions, passions (you can choose any of these words) are the only possible causes of action. Reason is not the cause of action but only a regulator.”

²⁶ For example, macaques of some species have no innate fear of snakes, but easily acquire this fear if they see, in videos, conspecifics looking very fearful of snakes. But they do not easily acquire fear to flowers if they see conspecifics looking very fearful of flowers in manipulated videos (Öhman and Mineka, 2001).

trusting their judgment. Their judgment bases the decisions on calculations of expected pain and pleasure, whose adaptation to the particular circumstances of each individual's life is improved by learning.

Thus, evolution by natural selection extends its influence to situations which, due to their rarity, may not have led to genetic changes specifically useful in them. Among such situations are the different cultural situations. Even in the unlikely event that cultural diversity is produced entirely randomly, as genetic mutations, some customs would be more pleasant than others. Given the relationship between pleasure and convenience for reproductive success, when people adopted the pleasurable customs and abandoned the painful ones they would also tend to choose the customs that are *or were* more convenient for reproductive success.²⁷

In this book I try to explain some causes of violence by answering this question: What practical uses for reproductive success violent behavior has *or (presumably) had*, on average, so that people often choose it (i.e., so that they estimate it is the option that will render the best balance of pleasure and pain, and accordingly choose it)?²⁸ After what we have seen so far, we can say that the first answer is this: very often, none. Humans often make mistakes, and choosing violent alternatives that are useless or even harmful may be between them.

The first imperfection of biological evolution that I discussed, I remind you, was that even if individuals of a species have average adaptive values (efficient in maximizing reproductive success) of some trait, there will

²⁷ Alexander (2006). Nichols (2008) and Baumard and Boyer (2013) thus explain the suspicious degree of overlap between the moral evaluation of behaviors as good or bad and the positive or negative emotions that people feel in their presence: moral norms saying that something to which people react with disgust is good, for example, tend to be abandoned. As Russell (2002, p. 18) says: "The moralist may be tempted to ignore the demands of human nature and, if he does, human nature will likely ignore the demands of the moralist."

²⁸ Hereafter I will not say, therefore, that a behavior is chosen because it is calculated to be the alternative that yields the best balance of pleasure and pain, which I give for granted. What I will do is consider the practical usefulness of a behavior (for reproductive success) as a cause of the behavior. (The practical usefulness of a behavior is one of its causes because the tendency to perform practically useful behaviors is selected and incorporated into the design of living beings.)

necessarily be individuals with extreme maladaptive values, as a result of a random combination of genetic and environmental factors. In addition to several studies having found that, as expected, the studied personality traits associated with violence and its inhibition have a significant hereditary component²⁹, there are many studies that have found statistically significant correlations between the possession of certain alleles (variants of genes) and violent behavior.³⁰ Individuals who have many such alleles, especially in combination with favorable environmental factors³¹, become extremely violent and their extreme violence will probably not be adaptive (for the same reasons it can be predicted that there should be extremely nonviolent individuals whose lack of violence is not adaptive³²). This is one of the possible causes of psychopathy and psychopathic tendencies.³³ The importance of this fact is noteworthy: the prevalence of psychopathy may be 1%³⁴, a not trivial percentage, especially if you consider that psychopathy is a major cause of violence, which means that the rate of violence attributable to psychopaths is much higher than 1%.³⁵

The second imperfection of design by evolution, possibly more important than the former, is the one resulting from evolutionary inertia. This inertia promotes decisions that would have been good for reproductive success in our past but no longer are today. We are, for example, very sensitive to dangers

²⁹ Bouchard (2004), Wallace *et al.* (2007), Ferguson and Beaver (2009), Glenn *et al.* (2011). According to Bouchard (2004, p. 151): “Nearly every reliably measured psychological phenotype (normal and abnormal) is significantly influenced by genetic factors.”

³⁰ Siever (2008), Ferguson and Beaver (2009).

³¹ Moffitt (2005), Kim-Cohen *et al.* (2006).

³² According to Ferguson and Beaver (2009, p. 290): “Individuals lacking utterly in healthy aggression may be diagnosed with mental health conditions such as Avoidant Personality Disorder or Dependent Personality Disorder.”

³³ Glenn *et al.* (2011). Another possible reason for the relative frequency of psychopathic traits, compatible with the one discussed above, is that these traits are or have been adaptive, at least in some circumstances. Many typical traits of psychopaths are consistent with a social strategy of manipulation and exploitation of others (Stevens and Price, 2006; Glenn *et al.*, 2011) that may or might be adaptive except in extreme cases.

³⁴ Psychopaths are one end of a continuous distribution of psychopathic traits in the human population. According to an arbitrary threshold established by researchers, psychopaths make up 1% of the population (Glenn *et al.*, 2011).

³⁵ Miller (2008). That 1% of the population make up 10-15% of criminals, according to Hare (2012).

whose current importance is probably smaller than in the past, as the dangers of “immoral” behavior, and instead very insensitive to current hazards such as pollution, over-exploitation of resources and other hazards related to disruption of ecosystems.³⁶

Evolutionary inertia may also help produce a serious consequence: an overly favorable attitude to collective violence, as a result of an overly optimistic estimation of winning. It is quite likely that in our distant past one of the things that provided information to assess this probability was the number of participants of each side. At that time, J. Tooby and L. Cosmides argue, it was necessary to predict the behavior of dozens or, rarely, hundreds of individuals: having hundreds or thousands on your side would be an almost sure sign of victory.³⁷ A psychology designed primarily for that time can lead today to serious miscalculation: you can calculate that you will surely win if you are surrounded by thousands of enthusiastic fellows³⁸, ignoring the fact that on the other side, not visible at the moment, there may be many thousands more, or less but with much more powerful weapons. Although progress has increasingly led to decisions of going to war being coldly made by a few politicians or military personnel, the quoted miscalculation may be still influencing some current decisions to declare war and many other violent collective conflicts of minor scale.

Evolutionary inertia can produce many other mismatches, some of which I will discuss further on.

³⁶ Gilbert (2011). According to Gilbert (2011, p. 276): “Our brains were optimized for finding food and mates on the African savannah and not for estimating the likelihood of a core breach or the impact of overfishing. Nature has installed in each of us a threat-detection system that is exquisitely sensitive to the kinds of threats our ancestors faced — a slithering snake, a romantic rival, a band of men wading sticks — but that is remarkably insensitive to the odds and consequences of the threats we face today.”

³⁷ Tooby and Cosmides (1988). In chapters 6 and 9 I will explain another reason for the over-estimation of the probability of victory in cases of individual or collective struggle.

³⁸ There is evidence that if one is in the company of friends, enemies seem physically weaker (Fessler and Holbrook, 2013).

2 Resources and competition

Zotlöterer: *I shot a French from behind. He was cycling.*

Weber: *At close range?*

Zotlöterer: *Yes.*

Weber: *Did he want to capture you?*

Zotlöterer: *Not even close. I just wanted the bike.*³⁹

Violence is a tool used in a diverse range of situations and for equally diverse purposes. In this book, I will not attempt to address or even to mention all possible uses of violence. Instead, I will focus on just some of these uses and, in particular, those that I feel are most typical amongst human beings or least well known.

One of the most primitive causes of violence is the fight for, usually limited, resources. Although primitive, this continues to be highly significant. For example, the fight for natural resources is a key cause of war⁴⁰; before 1945, the majority of wars between States involved attempts to gain new territory and most of these conflicts resulted in changes to existing borders.⁴¹

The range of resources that are fought over, whether individually or collectively, is extremely diverse: food, water, territory, money, etc. Given that, based on that discussed in Chapter 1, we are often unaware of what drives us to do certain things, it is easy to look to other explanations for what is, in part,

³⁹ Fragment of a secretly recorded conversation between German prisoners during World War II, quoted by S. Neitzel and H. Weltzer. The sources of the initial quotations can be found on p. 163.

⁴⁰ Letendre *et al.* (2010), Bruch *et al.* (2012). The influence of weather conditions on the productivity of natural resources is, probably, one of the reasons why climate changes, such as rising temperatures or alterations in rainfall patterns, are also causes of violence and above all of collective violence, as has been proven in recent studies (Hsiang *et al.*, 2013).

On the other hand, as suggested by Bruch *et al.* (2012), the purpose of a great deal of human violence against natural resources is to deprive enemies of shelter, food and support.

⁴¹ Zacher (2001). Since 1945 there has been greater international support for maintaining existing borders, and changes to country lines as a result of war have become rather less common (Zacher, 2001).

motivated by a desire to obtain resources. Genocide, for example, often leads to large amounts of property changing hands; therefore, it is highly probable that the desire to amass further resources would be one of the reasons behind this type of violence.⁴²

Material resources and money have more uses than just the satisfaction of our own personal needs. They also serve to satisfy, for example, family needs, or those of other relatives, or can be exchanged for other resources and favors. For example, they may be used to secure violent collaboration (paying others to carry out acts of violence on your behalf), to gain support through votes (whether bought directly or obtained based on the promise of reward) or to influence laws and judgments in court.

This all means that people with a lot of resources, or the means to obtain them, become highly attractive to those who could become their allies, friends or partners. More often than not, the economic position of one's partner is more important to women than to men.⁴³ This usually means that men will fight with more determination than women to improve their economic position, both in terms of absolute and relative wealth⁴⁴ (the average relative wealth of individual members of society, in contrast to average absolute wealth, does not increase in line with the economic develop of that society).

Members of the opposite sex can also be a valuable resource as they are essential for procreation or for satisfying sexual desire. When the maternal investment in bringing up offspring is greater than the paternal, as is often the case for human and other species, this resource is more valuable if "the opposite sex" is female. The fight to secure a female mate, including that to obtain the

⁴² In Nazi Germany, a great deal of Jewish property changed hands. Not only was it used to help finance the German war effort and to make certain people extremely wealthy, it also benefited and compensated many ordinary Germans who, for example, could move into formerly Jewish houses after having lost their own in Allied air raids. According to Aly (2006, p. 322): "It is impossible to understand the Holocaust without analyzing it as the most significant murderous robbery in modern history."

According to André and Platteau (1998), the economic hardship suffered by many Rwandans as a result, amongst other things, of the scarcity of arable land contributed to the devastating intensity of the violence and the speed at which it spread through Rwanda in 1994. According to them (p. 40, footnote 41): "It is not rare, even today, to Rwandans argue that a war is necessary to wipe out an excess of population and bring numbers into line with the available land resources."

⁴³ Buss (1996), de Miguel and Buss (2011), Schwarz and Hassebrauck (2012).

⁴⁴ Daly and Wilson (2003).

resources or status to attract a partner, is one of the main causes of both individual⁴⁵ and collective⁴⁶ violence amongst men. This helps explain why there is much more violence between men than between women⁴⁷ and why war has nearly always been a male endeavor. In addition, it also sheds light on certain peculiarities of modern human psychology.⁴⁸

Although there is often an excess supply of potential male partners, not all of them are seen as being able to provide resources for offspring, quality genes or other services (such as protecting women and children from other aggressive men.⁴⁹) Therefore, there is also competition amongst women for the men who do have these qualities.⁵⁰ For example, “attractive women may find themselves the target of other woman’s aggression if they attract a disproportionate fraction of available men’s attention and resources.”⁵¹ This can be seen on a general level: given that each individual may or may not be chosen by others, not only as a reproductive partner but also as an ally for other purposes, and given that we naturally choose the most suitable partner, the mere fact of being suitable could

⁴⁵ Daly and Wilson (1990, 1997, 2003), Kanazawa (2003), Minkov (2009).

⁴⁶ It is assumed that this cause of collective violence may have been important in the past (Puts, 2010) and also today in certain indigenous groups (Daly and Wilson, 2003, p. 67; Walker and Bailey, 2013) and even in developed countries (Chang *et al.*, 2011, p. 976).

⁴⁷ Daly and Wilson (1990), Archer (2009b).

⁴⁸ According to the work of Chang *et al.* (2011), men form a mental association between sex and war that is not seen in women (in two of their studies, men showed quicker recognition of words related to war after subliminal exposure to images of female legs than after the same exposure to images of the national flag). Ainsworth and Maner (2012) found that, unlike female subjects, males were more aggressive with members of the same sex after thinking about things that stimulated sexual desire than after thinking about things that made them feel happy.

⁴⁹ Buss and Duntley (2011b), Snyder *et al.* (2011). Presumably, in our evolutionary past, the protection of women and children included protection against predators, in addition to other men (Puts, 2010).

⁵⁰ Campbell (1995, 2004), Leenaars *et al.* (2008), Vaillancourt and Sharma (2011), Volk *et al.* (2012), Piccoli *et al.* (2013).

⁵¹ Campbell (1995, p. 112). Leenaars *et al.* (2008) found that in girls, there is a positive correlation between being seen as physically attractive and becoming a victim of indirect aggression. On the other hand, highly attractive men and women are more likely to be hired by members of the opposite sex, but less likely to be hired by members of the same sex, if the findings of Agthe *et al.* (2011) may be applied on a general level.

be seen as a threat by those who are less so. These less suitable individuals may then react violently in order to devalue more suitable candidates.⁵²

The above illustrates an important point. The (violent) fight for resources could consist of a fight in which the victor gains control of the resource. However, it is also beneficial to attack or harm others who are not, at the time, staking a claim over any specific resource, but who might later seek to control, or at least use, the resource, diminishing supplies and making it harder to obtain. That is, weakening actual or potential competitors, covering all human beings as possible consumers of key resources, becomes useful. When these competitors (of humans) are animals, the mere fact of being a competitor can be reason enough to be killed; for example, by farmers, hunters, and fishermen and fisherwomen.⁵³ Nowadays, this is not often the case with human competitors⁵⁴ as there are enough deterrents to violence—mainly the risk of retaliation—to make harming the competition *in itself* not *usually* sufficient cause.

However, there are two key reasons why harming competitors remains a significant cause of human violence. The first is that there are advantages and disadvantages to all our actions and the desire to harm competitors can be a decisive factor, when accompanied by other motives, in the decision to use violence. The second is that deterrents to using violence are often nonexistent or

⁵² Parks and Stone (2010) discovered a trend of wanting the most altruistic members of the group to leave after a group task was performed, despite the fact that these altruists would benefit others at their own expense. Two explications for this trend were put forward: firstly, that the other subjects did not want to appear selfish in comparison and secondly, the rejection of those who stray from normal.

⁵³ Violence towards competitors (including amongst siblings), and even towards competitors of family members, is very common in animals.

⁵⁴ However, it could have been much more common in the past: Durham (1976) argues that in some cases, the main purpose of collective violence is to eliminate competitors, killing them or displacing them so they would no longer be competitors. His position is based, in part, on the information provided by Murphy (1957) about the Mundurucu people of Brazil who would send out groups that travelled many miles to attack other tribes: “Unless direct, specific questions were asked, the Mundurucú never assigned specific causes to particular wars. The necessity of ever having to defend their home territory was denied, and provocation by other groups was not remembered as a cause of war in Mundurucú tradition. It might be said that enemy tribes caused the Mundurucú to go to war simply by existing, and the word for enemy meant merely any group that was not Mundurucú” (Murphy, 1957, pp. 1025-1026). (Murphy interprets the collective violence of the Mundurucu as displaced aggression. This type of aggression is discussed in Chapter 7.)

ineffective and therefore desire alone can become sufficient cause. For example, when one group decisively defeats another, the victors can inflict further violence on survivors of the defeated group with little risk of retaliation.⁵⁵

The decision of who to target first as an actual or potential competitor depends on a number of factors: those thought to present the greatest competition or who are seen as the weakest are attacked most, while relatives and friends are

⁵⁵ According to Pinker (2012, p. 334): “During World War II, when Americans were asked in opinion polls what should be done with the Japanese after an American victory, 10 to 15 percent volunteered the solution of extermination.”

In Spain, according to Preston (2011, pp. 18 and 21), General Mola called for “the elimination without scruples or hesitation of all those who do not think like us.” According to Preston (2011, p. 573) as well: “When the Nationalists arrived at the smoldering remains of Guernica on 29 April [1937], the Carlist Jaime del Burgo asked one of the lieutenant colonels of Mola’s military staff: ‘Was this really necessary?’ to which the officer replied: ‘This should be done to all Vizcaya and Catalonia.’” This occurred during the Spanish Civil War, but after the war was over, potential competitors continued to be targeted. In the military tribunals after the war, countless sentences were past in order to further weaken the losing side, even when there was no proof of participation in any specific crime. According to Preston (2011, pp. 621-622):

“A typical case was that of a railway worker who allegedly took part in a series of bloody crimes and was convicted under the argument that, ‘even if we cannot prove you took part in these lootings, robberies, detentions and murders, it is safe to assume that you did due to your political beliefs’. Being a member of the Popular Front Committee in a village or town where nationalists had been killed was, in general, a guaranteed death penalty, even when the accused had no part in the murders, knew nothing about them or was even against them. Men and women were sentenced to death for taking part in crimes, not because of any direct proof but rather because the prosecutor thought that the republican, socialist, communist or anarchist beliefs of a prisoner made it safe to assume he or she *must have cooperated* in such crimes.”

In one extreme case, at a tribunal at which 20 prisoners for whom death sentence was asked were simultaneously tried, the prosecutor openly declared, according to Preston (2011, p. 621):

“I neither care nor need to find out if you are innocent or not of these crimes. ...My attitude is cruel and merciless and it may seem like my job is only to provide constant fodder for our execution squads to continue their social cleansing work. But no, we who won the war all work together and all want to eliminate the opposition so as to impose our order.”

However, I do not mean that causing harm to competitors is the only motive for this behavior. Another plausible motive is the show of power aimed at deterring third parties.

targeted less.⁵⁶ As for the rest, for nearly all human beings, all, or practically all, other humans are potential competitors; therefore, harming the competition is a universal, or near-universal, cause of violence.

This is why, in addition to other reasons, there is always cause to fear being attacked which, in turn, leads to a new motive for violence: taking *preventative* action against potential aggressors. There are two situations that favor this course of action: when the circumstances offer a significant advantage to the party who attacks first and when the rival's relative strength is expected to increase over time.⁵⁷

One case of violence related to the desire to economize on resources is infanticide. The main purpose of infanticide, in the case of the human race, is to avoid resources being used up when this will not, to a sufficient degree, boost the reproductive success of the perpetrator and instigator. This has been seen in both modern Western societies and in non-Western ethnic groups throughout the world.⁵⁸ Within this general principle, two key cases emerge: firstly, when there are doubts about paternity or certainty about non-paternity and secondly, when the abnormal characteristics of the newly born and the circumstances (economic or otherwise) of either or both parents make it unlikely that the infant will go on to procreate.⁵⁹

⁵⁶ For example, according to Daly and Wilson (2003, p. 279): "The accused witches are usually eccentric or irritable, or older individuals without supporting kin...; people normally think they can get rid of them with minimal risk of retaliation. But in some societies the accusations can also be aimed at rich or polygamous people, or people more successful, for whatever reason, than their jealous neighbors."

⁵⁷ Blattman and Miguel (2010, p. 13). According to Mailer (2003, pp. 68-69 and 90), part of the hatred felt by many US republicans towards Clinton's 1992-2000 term in office derived from what they saw as a squandered opportunity to conquer the world at a time when the potential rivals were extremely weak: "When the Soviet Union collapsed, many republicans believed the time had come for them to take over the world. They thought they were the only ones who knew how it should be run. As a result, their desire to realize this dream was as fierce as their anger when Clinton was elected. This is one of the reasons why they hated him so much; he thwarted their plans of world domination. From their point of view, back in 1992, this seemed a totally plausible and incredibly simple task" (Mailer, 2003, p. 90).

⁵⁸ Daly and Wilson (2003).

⁵⁹ In many mammals whose reproductive habits allow for a high level of certainty regarding (non)paternity, including a number of primate species, males will often commit

For similar reasons, in some pre-industrial societies the oldest members would be abandoned or killed when, at times when food was scarce, they were considered to be a burden.⁶⁰

The purpose of some acts of aggression, which can be referred to as “tactical” or “strategic,” is not to immediately obtain resources but to make it easier, in theory, to acquire them in the long run. Strategic violence is frequently used in wars and international relations. One example of this type of violence is backing the most convenient side in third-party conflicts. Numerous invasions have been carried out⁶¹ and military dictatorships installed⁶² thanks to the support

infanticide after defeating and replacing the leader and main procreator of the group: shortly after assuming control, they kill all or some of the young, who are most probably the offspring of the defeated male. In this way, the mothers are soon back on heat, a state which is not possible when lactating, and can be impregnated by the new leader. This has also been proposed as motive for human infanticide (Buss and Duntley, 2011a, p. 402), although it is certainly less common than the other causes discussed in this chapter.

⁶⁰ Miguel (2005). This still occurs today in the form of the killing of “witches.” According to Miguel (2005), the number of elderly, mainly female, people accused of witchcraft and killed between 1992 and 2002 in one district in Tanzania, doubled in years of drought or floods compared to in normal years. In most cases, the people responsible for these deaths were the relatives of the accused. According to Miguel (2005, p. 1157), the economic motivation “does not imply that individuals in western Tanzania do not genuinely believe in witchcraft. The belief that the murder victim truly is a witch is important since it may alleviate the psychological trauma and social stigma associated with the murder of a relative, allowing killers to justify their actions both to themselves and to the community.”

⁶¹ According to Zacher (2001, p. 230), Morocco’s absorption of the former Spanish Sahara (Western Sahara) in 1975 “was supported by France and the United States because they preferred that pro-Western Morocco, and not the radical Polisario independence movement, control the region.” According to Zacher (2001, p. 232), in the case of Indonesia’s invasion of East Timor in 1975 “the UN General Assembly regularly called for Indonesia’s withdrawal and the holding of a referendum between 1975 and 1982, but Indonesia did not relent because it had the de facto backing of the United States and some other Western powers who feared that an East Timor government controlled by the pro-independence party, Fretilin, would establish close ties with communist China after independence.” Indonesia controlled East Timor for twenty-four years.

⁶² For example, Pinochet’s dictatorship in Chile (Kornbluh, 2013). The long-term strategy was the main motivation behind the USA’s relentless harassment of Allende’s Government in Chile, according to the words of the American Secretary of State, H. Kissinger on 06/11/1970, as quoted by Kornbluh (2013, p. 70): “The success of the

of foreign governments. A relatively famous quote that symbolizes such strategies was uttered by Franklin Roosevelt about Anastasio Somoza, the president of Nicaragua: “He may be a son of a bitch, but he’s our son of a bitch.”⁶³

Violence is also used as a strategy to control the supply and demand, and therefore the price, of certain goods. For example, arms manufacturers and dealers have a motive to encourage violence as this would increase the demand for weapons. As another example of the strategic promotion of violence, European slave traders would often incite wars between native communities in Africa as this would create prisoners who could in turn be fed into the slave market.⁶⁴

The use of violence to obtain information can also be classified as strategic. This is one of the reasons behind torture and the testing of new weapons (as was perhaps the case with the bombing of Hiroshima and Nagasaki⁶⁵), and is probably also the main motivation behind animal testing and, much less frequently, scientific experiments on humans.⁶⁶

Another significant category of strategic violence is that of punishments designed to discourage undesirable behavior, which will be discussed in the next chapter.

democratically elected Marxist government would set a clear example (and even a precedent) for other parts of the world, with regard, in particular, to Italy, and the generalization, by imitation, of similar phenomena in other countries would significantly affect the world balance and, as a result, our position within this world.”

⁶³ As quoted by Pinker (2012, p. 308).

⁶⁴ Thomas (1998).

⁶⁵ The bombs dropped on Hiroshima and Nagasaki were in fact two different types of atomic bomb: the first was uranium-based and, being a simpler device, was used with no prior testing. The second was plutonium-based and had been tested just once before, in an uninhabited part of the New Mexican desert.

⁶⁶ One example of this type of violence is the experiments carried out by certain Nazi doctors. In another case that only recently came to light, hundreds of Guatemalans—prisoners, soldiers and the mentally ill—were infected without their consent with venereal diseases—a relatively common problem amongst soldiers—as part of a research program funded by the US Health Authorities between 1946 and 1948, the results of which were never made public. The subjects did receive treatment, although they were not always given the “adequate” amount of penicillin, an expensive medicine (Minogue and Marshall, 2010).

At times, certain resources object to and resist being used. Therefore, those who wish to do so must exercise violence not against competitors, but against the resources themselves. This is the case with animals used as food or, much less frequently, with humans who are used as food.⁶⁷ It also applies to enslaved animals and humans used as labor or a source of entertainment, and to other ways of benefiting from the lives of others, including forced marriages, forced labor camps and compulsory military service or enlistment.

Another example is that of a significant number of rapes and sexual assaults. Here, the resource could be the reproductive capacity of the victim. However, in reality, it is usually the victim's capacity to satisfy sexual desire, which is sought regardless of whether the attack has reproductive consequences or not (in the same way that some seek to satisfy their desire to eat even when this leads to obesity; a serious health condition). This explains the occurrence of sexual assaults that do not involve rape and of rape, or attacks similar to the traditional idea of rape, of men by other men or women.⁶⁸ However, here I will focus on the rape of women by men, which is the most common type.

Given that the evolutionary origin of sexual desire is its reproductive purpose, it can be expected that this desire does not occur by chance and that it tends to lead to opportunities to reproduce. This is consistent with the fact that young and attractive women are most at risk of being raped.⁶⁹ Furthermore, some data suggests that pregnancy rates after being raped are higher than after consensual sex.⁷⁰

Rape is known to exist in many species; firstly, as the only reproductive strategy available to subordinate individuals, secondly as a secondary strategy supplementary to mating with a regular partner, and thirdly as a sporadically employed resource. The first of these cases is seen in orangutans, a species that is close to the human species (in contrast, amongst baboons and chimpanzees, the species that are most similar to humans, rape is less common). An adult male orangutan will usually have its own territory in which one or more females live,

⁶⁷ For example, the Aztecs would regularly eat other humans, normally prisoners of war, who were sacrificed "to the Gods" after, in many cases, being fattened up beforehand (González Torres, 2012, p. 296). Around the beginning of the 20th century, cannibalism was still relatively common in what is today the Democratic Republic of the Congo (Casement, 2010).

⁶⁸ Fisher and Pina (2013), Miller (2014).

⁶⁹ Malamuth *et al.* (2005), Felson and Cundiff (2012), Miller (2014).

⁷⁰ Gottschall and Gottschall (2003).

separately, and who are its regular mating partners. In contrast, the primary reproductive strategy of young, sexually mature adults who do not have their own territory is to rape these females.⁷¹

All three cases arise in the human species. From an evolutionary point of view, the *general norm* that is expected to predict cases of rape and attempted rape would be that these will occur when the aggressor believes that the benefits outweigh the costs. These costs are mainly the risk of vengeance exacted by the victim or by others and the risk of injury caused by the victim in self-defense.⁷² With human beings, as is also seen in orangutans and other species, the benefits are especially attractive for individuals with a very low market value as potential partners. These men are unlikely to be chosen by women of a higher reproductive value, that is, by young or attractive women or, when applicable, by the parents of such women.⁷³ The benefits for these men are so attractive because the alternative is a high probability of dying without descendents.

When this is not the case and there is not so much to be gained, for example for males with a higher market value, rape may still occur in situations of reduced risk, such as when the victim is highly vulnerable or in times of war.⁷⁴ A certain percentage of men, around a third according to some studies⁷⁵, admit to not completely ruling out the idea of rape if they could be sure they would not be caught and punished.

Another cause of rape is the possession of extreme and probably non-adaptive characteristics: as is the case with violence in general, psychopaths

⁷¹ Maggioncalda and Sapolsky (2002).

⁷² Apostolou (2013).

⁷³ Apostolou (2013) argues that the norm over the evolutionary history of the human race was that parents would choose a partner for their daughters more often than the latter would choose for themselves.

⁷⁴ Bozarslan (2009, p. 228), Chang *et al.* (2011, p. 976), Apostolou (2013). According to the estimates cited by Apostolou (2013, p. 488), around one million rapes were committed in Berlin by members of the Soviet army at the end of the Second World War.

⁷⁵ Malamuth (1981) provides a figure of 35% as the average percentage obtained from various studies. In a later study (Malamuth, 1989), this percentage was found to be 26%. These studies were carried out on male subjects who were primarily university students from the USA and Canada (under anonymous conditions).

commit a disproportionate number of rapes, and various studies have also found a higher than normal occurrence of cerebral disturbances in rapists.⁷⁶

One particular type of rape, which is relatively common⁷⁷, is when women are raped by their regular partner. Amongst humans, the frequency of this type of rape is due, in part, to the low risk of negative consequences compared with other types of rape, as it generates a lesser degree of social rejection (which is related to the fact that many people believe a wife should not deprive her husband of sex⁷⁸). On the other hand, some studies suggest that men's perception of the risk that their partner might be unfaithful increases the probability that they will coerce them into sex or even rape them.⁷⁹ The risk of infidelity also increases the probability of rape in other species that tend to form stable couples.⁸⁰ This can be interpreted as a means of reducing, by what is known as sperm competition, the chances of the female being impregnated by a rival male: if there is sperm from another male inside the female's sexual organs, forced copulation introduces sperm from the regular mate, reducing the possibility of the female's eggs being fertilized by rival sperm.

Sexual violence, as a form of violence, can also be motivated by other causes common to acts of violence in general. A sexual assault can, for example, contain an element of displaced aggression⁸¹ (displaced aggression is dealt with in Chapter 7).

⁷⁶ Miller (2014). (Rapes can be linked to extreme and non-adaptive characteristics when the punishment inflicted on perpetrators outweighs the benefit of the potential pregnancies resulting from them.)

⁷⁷ According to studies cited by Miller (2014, p. 74), the rape of regular partners accounts for 10% to 26% of the total number of rapes.

⁷⁸ Apostolou (2013).

⁷⁹ Goetz and Shackelford (2006), Camilleri and Quinsey (2009).

⁸⁰ McKinney *et al.* (1983), Goetz and Shackelford (2006).

⁸¹ Sapolsky (2001, pp. 31-32) states that after considerable time spent observing a group of macaques, two rapes were witnessed and they both occurred under the same circumstances: the aggressor had just lost his status as alpha male.

3 Inhibition of violence, revenge and punishment

*Do not mistreat with words whom you have to punish with facts,
because to the unfortunate the pain of the torment is enough without the
addition of wrong reasons.*

Cervantes

According to S. Pinker, university students are a sector of the population known for having especially low violence rates.⁸² Two samples from this sector were asked if they had ever fantasized about killing someone. 72% of the men and 67% of the women gave a positive answer.⁸³

A very important cause for the inhibition of violence is the awareness that an aggression is often followed by another aggression to the first aggressor.

There are two types of aggression that are considered as a reaction against another aggression. Firstly, self-defense or the defense of other individuals, considering defensive aggression as the violence addressed to the aggressor while carrying out their aggression, aimed at stopping the assault or minimizing the damage. Another use for defensive violence, if damage is caused to the assailant, is *deterrence*. This damage discourages the same assailant or other potential assailants present at the scene or receiving information from it from future attacks.

The second type is revenge. In principle, revenge is violence in response to an aggression, but after it has happened. Therefore, it cannot have the first use of defensive violence, and its main use is deterrence, or as a display of power.⁸⁴ We

⁸² Pinker (2012, pp. 483-484).

⁸³ Kenrick and Sheets (1993).

⁸⁴ Daly and Wilson (2003), McCullough *et al.* (2013), Gollwitzer *et al.* (2014). Deterring an aggressor, or others, from repeating the same kind of aggression is different from displaying power. But deterring the aggressor or others from performing any kind of aggression, or even any kind of behavior opposed to our interests, is very similar to displaying power, as it is this display of power that has the deterrent effect. I will say more about this in Chapter 7.

Another use of revenge (in the broadest sense of the term) is the elimination or weakening of any individual whose existence or well-being harms our interests, that is, the damage to competitors; person A can wish to “retaliate” against person B even if B does not know A exists (if B holds the job A wants, for example) (Sell, 2013).

can consider revenge carried out by the aggressed towards the aggressor as the most primitive type of revenge. However, in practice, both the avenger and objective of the revenge can be relatives and friends of both the aggressed and the aggressor, respectively (individuals act as if hurting people's relatives or friends is equal to hurting the person themselves). This has also been observed in non-human primates.⁸⁵

These words are part of a secretly recorded conversation among Second World War prisoners of war: "For each of ours who fell, ten of them had to be shot. And I mean this *had to* be done: these were the orders. And for each of us injured, three."⁸⁶ There is nothing to prevent the violence of revenge from being much greater than the violence that supposedly caused it. That is why the fulfillment of the "law" of "an eye for an eye and a tooth for a tooth" could be a limitation for violence in many cases, even though this is not often the case. Furthermore, if the person receiving the revenge perceives it as an unjustified aggression that deserves to be avenged, an endless cycle of revenge can be started. For all of these reasons, revenge is an important cause of human violence⁸⁷, although its main function is to deter people from committing acts of violence (which is why controlling the wish to seek revenge and punishing in a moderate way may have a significant effect in reducing it⁸⁸).

It is so likely that revenge will follow an aggression that one of the most sophisticated aims of an aggression can be to provoke revenge. For example, this is a tactic used by demonstrators to provoke the police to use violence, thereby increasing the support to demonstrators. In a more extreme case, terrorist groups that allegedly fight on behalf of a minority attack the government: the government reacts by taking revenge on the minority, and this revenge increases the support given to the terrorist group.⁸⁹ Governments can also use this tactic.⁹⁰

⁸⁵ Clutton-Brock and Parker (1995).

⁸⁶ Neitzel and Weltzer (2012, p. 322).

⁸⁷ Daly and Wilson (2003), Barash and Lipton (2011), Walker and Bailey (2013).

⁸⁸ According to Pinker (2012, p. 637): "The national reconciliation movement of the 1990s, in which Nelson Mandela, Desmond Tutu, and other peacemakers abjured in-kind retributive justice for a cocktail of truth-telling, amnesty, and measured punishment of the most atrocious perpetrators, was another accomplishment of violence reduction via calculated proportionality."

⁸⁹ Simon and Clandermans (2001).

⁹⁰ For example, the Chilean government had plans in the case they lost the plebiscite of 1989 regarding the continuation of the military government. This plan was based on provoking a violent response of the opposition in order to have an excuse to repress it and

There are several reasons for revenge. We do not only tend to feel attacked when we or our relatives or friends are in fact attacked, but also when someone causes a “damage to our interests,” which in the broadest sense of the term means a “disadvantageous action or omission.”⁹¹ However, insofar as the allegedly main cause of an aggression departs from being a previous aggression in itself, the most common word for it is not “revenge”, but “punishment.”

It is a universal or at least highly generalized law that living beings try to alter environmental features, bringing them closer to their ideal conditions, or what is best for them. The rest of the living beings are an important part of this environment, and trying to manipulate their behavior is also a universal or at least highly generalized law. This can be achieved in two main ways.

The first is making the individual who is to be manipulated acquire certain beliefs, assuming that as a result, the individual will be more likely to make a decision that is beneficial for the interest of the manipulator. If this belief is false, the manipulation is called deception. I will refer to deception in later chapters.

The second main type of manipulation can be called “education.” When a certain behavior repeatedly leads to negative results, the tendency to carry out this behavior decreases; if it leads to positive results, the tendency increases. Thus, a way to manipulate the behavior of other people is by punishing their inappropriate behaviors and rewarding their appropriate behaviors. A typical punishment causes damage by means of violence with the aim of discouraging certain behavior. Not giving an expected reward has the same effect, which is why this is also called punishment (in the same manner, escaping from expected harm can also be a reward). From the point of view of reproductive success, the consequences of being damaged and not receiving a favor are similar. That explains why animals and humans often react with similar violence in both types

cancel the plebiscite. Nevertheless, Pinochet was not supported this time by the other main military commanders, and had to accept his defeat (Kombluh, 2013, pp. 285-288).

⁹¹ The harm caused to (reproductive) interests are the only thing that matters to a well-designed living being from an evolutionary point of view, while direct harm caused to individuals is *normally* a specific case of damage to interests. The rare behaviors that cause damage to individuals but promote their reproductive interests are favored by natural selection. For example, this occurs with certain types of male mantis and spiders, which risk being eaten by females in exchange for copulating with them. (They also have the incentive that, if they are eaten after a successful copulation, they will at least have served as a source of nutrition for their descendants.) It is also the case of many types of human behavior considered as heroic. This is related to the fact that people use the term “harm” to describe things that only threaten their interests.

of situations⁹², and why you may equally have the right to not be harmed, as to be favored.

Some examples of human violence that are often punishments to a certain extent are domestic violence⁹³, violence against pupils, taming, violence against slaves, extortion, and violence carried out with the protection of moral and penal codes. Nevertheless, aggressions are normally due to a complex set of causes, although some of them may be more important than others for each specific case. Thus, it is possible that there are few “pure” punishments, few aggressions whose only use is to discourage the punished behavior, if there is any. For instance, experts in legally imposed penalties or punishments (that can be defined as the legally prescribed response to law-breaking) have pointed out that they have other uses apart from deterrence. Some of these uses are the elimination of the offenders, their expulsion, or isolation, in order to prevent them from committing new serious offences; damaging the offender’s social status and power and repairing the victim’s; and affirming the power of the state over the offenders.⁹⁴

Not all the reasons for violence are accepted in the same way by society. Self-defense is a widely accepted motivation, as well as discouraging behaviors that are “harmful to society.” Therefore, people are motivated to try to convince others that their violence, whatever its actual causes, is in their own self-defense or in defense of society. This is why the causes of what people call “punishment” tend to be the same as the general causes of violence.

The variety of the real motivations behind any type of aggression referred to as “punishment,” and how the difficulty involved in knowing them allows people to suggest the most convenient motivations, can be exemplified by the history of research on “altruistic punishment.” In recent years, many experiments had been carried out to study human altruism, using economic games in which two or more strangers interact. This is the case of the “Public Goods Game,” in which the group’s total payoff is maximized if each subject contributes the maximum contribution, but the individual payoff is maximized with zero

⁹² Berkowitz and Harmon-Jones (2004), Renfrew (2005).

⁹³ Straus (2011). An important reason for this is infidelity (whether real or perceived), amongst others.

⁹⁴ Vidmar (2000), Barash and Lipton (2011). The fact that legal punishments have more causes than deterrence explains why some studies show a small correlation between the deterrence desire (or fear of crime) and the support to more punitive laws (Ellsworth and Gross, 1994; Tyler and Boeckmann, 1997).

contribution.⁹⁵ In some of these experiments, the introduction of the possibility of punishing increased the average degree of altruism (or cooperation, according to the usual term in these cases). What happens in these games is that the most selfish people tend to be punished, and react by increasing their level of altruism (their contribution) in order to avoid new punishments. As is often the case in real life, punishment has also a cost for the punisher in these experiments. For instance, a player (or an observer in other cases) can spend a monetary unit from his or her economic endowment to punish another player, and this player loses 3 monetary units as a result of the punishment. In some studies, the punisher was negatively affected, from an *economic* point of view, while the whole group benefited from the increase in altruism of those who were punished. That is why some authors⁹⁶ praised these costly punishments, describing them as “altruistic” or “moral.”

Nevertheless, it is risky to consider these punishments as “altruistic,” as the immediate effect of the punishment is economic loss.⁹⁷ Furthermore,

⁹⁵ In the “Public Goods Game,” each player receives an amount of money, and each round, they decide how much they want to contribute to a common account, and how much they keep. The contribution of all players in each round is multiplied by a number higher than 1 and the result is equally shared among all of them. This leads to the aforementioned “public goods dilemma”: the total payoff is maximized with maximum contributions, but the individual payoffs are maximized with zero contributions. This game simulates, on a small scale, many real situations, such as the preservation of commons.

⁹⁶ As Fehr and Gächter (2002). According to Cela-Conde *et al.* (2013, p. 10339): “The human mental machinery led our species to have (...) a sense of justice, willing to punish unfair actions even if the consequences of such outrages harm our own interests.”

⁹⁷ The authors of the experiments about punishment motivations normally proceed with the caution of not telling their subjects that the possibility offered to them is “to punish.” Instead, they use neutral expressions, such as “assigning a decrease in the payoff”, so that the word “punishment” does not influence their behavior. Nevertheless, the researchers themselves may be influenced by their belief that what they are studying are punishments, and by their beliefs about which are the actual motivations for punishments. Mussweiler and Ockenfels (2013) go as far as calling “altruistic punishment” to some costly punishments which in an economic game between two subjects could only cause economic loss to both of them (without any economic benefit for any of the present or future participants). The authors *assume* that the punishment is the result of the desire for promoting a more generous behavior rule that, *in other situations*, would be in the public interest.

according to later experiments, the defense of the public interest is not usually an important cause for these punishments.

According to some experiments, subjects punish selfish players when they harm them, but not when they harm strangers.⁹⁸ In other experiments, the indirect effect of encouraging cooperation does not occur.⁹⁹

Other studies showed that part of the costly punishments were aimed at altruistic individuals, i.e. those who had made high contributions.¹⁰⁰ Some individuals are willing to harm others (and sometimes to discourage the altruism from which they, and others, benefit), even if this has a cost for them, and more if it does not. There is some evidence for these motivations for “punishing” the most altruistic players: revenge by selfish players, who assume that the altruists were the ones who had previously punished them¹⁰¹; annoyance at those who did not act normally, and towards those who made them seem selfish in comparison¹⁰²; and concerns for dominance and relative payoffs (since spending one monetary unit entails the loss of 3 units by the player being punished).

Another study revealed that a relatively high percentage of the subjects in the role of observers with the power to punish (between 25% and 30%) punished individuals whose behavior was unknown to them. Their authors believe that these punishments can be an intimidation, “an attempt to establish oneself as a dominant authority figure who is willing to punish in later rounds if dissatisfied with how the interaction proceeds.”¹⁰³

⁹⁸ Krasnow *et al.* (2012), Pedersen *et al.* (2013). Pedersen *et al.* (2013) explain several methodological limitations, which would explain why earlier experiments provided a different output. One of them is that by punishing the subjects, they would believe that they are investing in reputation, which can be useful in hypothetical future interactions, and so they can believe the punishment is a cost only in the short term.

⁹⁹ In studies such as that of Wu *et al.* (2009), the possibility of punishing is used, but does not increase the level of altruism. In other studies, the increase of cooperation is so small that the punishment cost makes the global payoff higher without punishment than with it (Gächter and Herrmann, 2009).

¹⁰⁰ Herrmann *et al.* (2008), Gächter and Herrmann (2009), Parks and Stone (2010), Rockenbach and Milinski (2011), Rebers and Koopmans (2012).

¹⁰¹ Herrmann *et al.* (2008).

¹⁰² Parks and Stone (2010). (In this case, the behavior studied was not literally a punishment. After 10 rounds of a public goods game, the subjects were asked to rate their desire for each of their partners to stay in the same group. Here I consider a low desire to stay similar to a punishment).

¹⁰³ Wu *et al.* (2009, p. 17450).

In light of these studies, it could be supposed that there are other motivations for imposing costly punishments on those who do not cooperate, other than to encourage cooperation with oneself and perhaps with third parties¹⁰⁴, and other studies confirm these suspicions. The “inequity aversion” or “egalitarian motive” seems to be an important motivation.¹⁰⁵ A research team designed a game that imitates the public goods game, but without promoting any kind of altruism. The way the game works is that each player randomly receives a certain amount of money, which the rest of the group knows. Then, each player can increase or decrease the other players’ money. This costs them one third of the amount they decide to increase or decrease. For instance, they can give or “punish” others with three monetary units, paying the cost of one unit.

The results of the game revealed a tendency to give more to those who had received little, and to “punish” those who, also by chance, had received a lot. Those who received more also tended to give more, and those who had received little tended to punish more. The researchers also found a relationship between the observed behavior and the feeling of anger. The subjects who tended to give and punish more declared that they would be angrier towards a person who had received more than them.¹⁰⁶ Similar results have been found in other studies.¹⁰⁷

People do not only care about their wealth and their total payoff, but also about the comparison between their wealth and payoff or social status, and those

¹⁰⁴ Costly punishments can be often unnecessary, since there is a less costly way of punishing: stop cooperating. According to Baumard’s (2010) revision of anthropological literature, in hunter-gatherer societies people do not normally punish egoists, or those who take advantage of others, at least by means of costly punishments, but instead, people “punish” them at no cost by ostracism, having no further dealings with them.

¹⁰⁵ Fowler *et al.* (2005), Johnson *et al.* (2009). (This motivation leads to the punishment of those that have obtained payoff thanks to behaving in a selfish way; not in order to encourage altruism, but to promote equality).

¹⁰⁶ Dawes *et al.* (2007).

¹⁰⁷ Zizzo and Oswald (2001), Zizzo (2002), Gino and Pierce (2009), Shaw and Knobe (2013), Yu (2013). The result obtained by Solnick and Hemenway (1998) can be interpreted in a similar way. Another motivation suggested for the punishment to the egoists is the wish to support “equity,” that is, to support proportionality between cooperation payoff and the investment made by each individual (Baumard and Boyer, 2013). This proportionality is broken if the egoists obtain payoff at the expense of the altruists. In the studies just cited, however, every individual investment could be considered as zero investment, in which case proportionality is hardly applicable.

of others.¹⁰⁸ According to R. Wilkinson and K. Pickett, in the most developed countries as a whole, economic inequality within a country is a cause of a number of social and health-related problems, including homicide and crime.¹⁰⁹ Although they do not state this, their hypothesis seems to imply that these problems would be eased if part of the wealth of the richest magically disappeared, without anyone noticing (so nobody would get angry). In the studies quoted in the previous paragraph, some subjects were willing to destroy part of the wealth of others, even by losing money, even if that wealth did not come from a previous selfish behavior that could be discouraged.¹¹⁰

Some of the practical uses of the aversion to inequality are relatively obvious (making part of the resources pass from the hands of others to one's own hands or to friends, relatives, or allies; and avoiding being punished for possessing too much). Nevertheless, these obvious uses cannot explain the *costly destruction* of the resources of those who have more.

However, this can be explained by the competition for being attractive to potential partners or associates. For example, the existence of individuals with a wealth of resources could be damaging to others since, in comparison, the latter appear poor and with little value on the mating market. This is consistent with the fact that people not only dislike economic inequality: people can also feel the psychological pain called *envy* with people who they consider to be superior to them in important qualities, and feel a certain amount of pleasure when these people

¹⁰⁸ Solnick and Hemenway (1998), Buss (2000), Easterlin (2003), Layard (2005), Fliessbach *et al.* (2007).

¹⁰⁹ Wilkinson and Pickett (2009). According to Lim *et al.* (2005), high economic inequality is one of the three main risk factors of the high national rates of homicide (the other two are a low gross national product and a high rate number of women / number of men). In contrast, Rosenfeld and Messner (1991) did not find any correlation between economic inequality and violence in any of the pre-industrial societies they analyzed.

¹¹⁰ Zizzo (2002) (who describes the behavior studied as “money burning”) and Mui (1995) cite several cases in which envy is opposed to economic progress, since successful people become target of attacks. These cases can result from the desire of equality, but not from the desire of equity. Zizzo (2002, p. 2) also comments a way to justify these attacks: this success could only occur by receiving help from the devil. For instance, a proverb of the Bemba from northern Rhodesia says “to find a beehive with honey is good luck, to find two beehives is very good luck, to find three beehives is witchcraft” (see also footnote 56).

suffer any type of misfortune.¹¹¹ (Feeling pleasure when other people suffer misfortunes creates a motive for aggressing them, causing them a misfortune in this way.¹¹²)

Pinker states that this motivation for punishment has been a cause of violence aimed at certain groups. According to this author, it is relatively difficult to intuitively understand the usefulness of dealers and moneylenders, since they do not produce anything new, unlike farmers or artisans, although they increase the value of pre-existing things. This generates dislike for these intermediaries, which can be spread to the ethnic groups in which these professions are common.¹¹³

The fact that punishments can be the result of different motivations can explain the variable effect of the publicity of punishments. Some experiments have shown that “moral punishment” increases when there are observers present.¹¹⁴ This means that to some extent, the punisher is seeking a certain reputation (either as an altruistic person, or as a powerful one, which is a new motivation for punishment). However, in another study, the subjects were willing

¹¹¹ Takahashi *et al.* (2009), van Dijk *et al.* (2011). The results obtained by van Dijk *et al.* (2011) support that one of the reasons why people may obtain pleasure from other people’s misfortunes is that, after comparison, they boost one’s self-esteem. Wilkinson and Pickett (2009, p. 228) do not clearly state that envy is related to the fact that inequality causes social problems, but state the following: “But we must also try to bring about a major shift in public values so that instead of inspiring admiration and envy, excessive consumption is seen as a sign of greed and unfairness, and a damage to the planet.”

¹¹² Cikara *et al.* (2011) found a positive correlation between the pleasure subjects felt when seeing the players of a rival baseball team fail and the chances they thought they had to aggress a rival fan (the subjects were selected for having expressed quite extreme love and hatred toward their team and the rival team, respectively.)

¹¹³ According to Pinker (2012, p. 330): “The capital necessary to prosper in middlemen occupations consists mainly in expertise rather than land or factories, so it is easily shared among kin and friends, and it is highly portable. For these reasons it’s common for particular ethnic groups to specialize in the middleman niche and to move to whatever communities currently lack them, where they tend to become prosperous minorities — and targets of envy and resentment. Many victims of discrimination, expulsion, riots, and genocide have been social or ethnic groups that specialize in middlemen niches. They include various bourgeois minorities in the Soviet Union, China, and Cambodia, the Indians in East Africa and Oceania, the Ibos in Nigeria, the Armenians in Turkey, the Chinese in Indonesia, Malaysia, and Vietnam, and the Jews in Europe.”

¹¹⁴ Kurzban *et al.* (2007).

to pay in order to hide their highest punishments, indicating that they were afraid of the effect these punishments could have on their reputations.¹¹⁵

On the other hand, and as would be expected, a number of studies have found out that strangers receive or are wished greater punishments than in-group members or relatives.¹¹⁶ Finally, some punishments, of whatever kind, can be due to mistakes. It has been found that failing to understand the rules of economic games may be an explanation for the degree of altruism observed¹¹⁷, and there could also be some mistakes that could affect “altruistic punishments.”

“According to his own version, a landowner from the province of Salamanca, on learning about the military uprising in Morocco in 1936, ordered his farmhands to stand in a line, chose six of them, and shot them as a lesson to the others. His name was Gonzalo de Aguilera y Munro, a retired army officer, and he told this to at least two people during the Civil War.”¹¹⁸

What had changed overnight to cause this and other murders? One of the possibilities is that a new motivation for violence appeared. For example, the uprising and the foreseeable civil war could have led to some people classifying others as friends or enemies, applying the respective degree of violence to those identified as enemies.

Another possibility is that this violence was not a result of the appearance of a new motivation, but of the disappearance of some inhibiting factor, such as the fear of being punished. An increase in the violence in Bahia, Brazil, in 2012 could be explained this way, when the murder rate doubled during a police strike.¹¹⁹ (On the other hand, two policemen were accused of committing some

¹¹⁵ Rockenbach and Milinski (2011).

¹¹⁶ Jordan *et al.* (2005), Bernhard *et al.* (2006), Lieberman (2007), Schiller *et al.* (2014).

¹¹⁷ Some recent experiments (Burton-Chellew and West, 2013) have shown that the degree of altruism decreases when the participants are more precisely informed that their actions may benefit others. This and other results of these experiments support the view that a significant amount of the altruism observed in experiments of this kind is a result of the participants failing to correctly understand the task they have to carry out.

¹¹⁸ Preston (2011, p. 29).

¹¹⁹ According to the newspaper *La Voz de Galicia* on 5 February, 2012 “In the capital city of Salvador alone, 50 homicides were registered in the four days of the strike, 117% more than the same period last year, according to the numbers provided by the *Brazil* agency.”

of the murders¹²⁰, in what would seem to be another example of strategic violence: the more the violence increases during the strike, the more the police will seem necessary and the more their demands will be met.)

When the German army occupied part of the Soviet Union in the Second World War, they sent out battalions whose main role was to kill Jews. At the same time, they also sent out groups of entertainers, with musicians and artists. In mid-November 1942, one of the entertainment groups met up with one of the extermination battalions, and “asked the commander of battalion 101 of the reserve police to join the squads: to be authorized to shoot in the ‘Jewish action’ planned for the following day. This extreme request was satisfied. The following day, the entertainment group entertained itself by shooting Jews.”¹²¹

It is impossible to know what motivated these musicians and artists, but I think there is something true in what the authors of the previous quote say: “These men were amused by doing something they would never be allowed to do under normal circumstances: experiencing the feeling of killing someone without being punished, of exercising total power, of doing something completely unusual while released from the fear of suffering any kind of punishment.”¹²²

(This suggests another possible motivation for violence: as entertainment. This seems to be an important motivation in hunting animals, and also humans: in various conversations that were recorded in secret, certain imprisoned pilots talked about how much fun their airborne attacks had been, when everything went to plan.¹²³ Nevertheless, they are not the only violent behaviors that are chosen because they give pleasure; in other words, the only ones that are not chosen because they seem to be the least painful choice. For example, punishing those who did not collaborate in an economic game may be pleasurable.¹²⁴ There must be something true in the saying “revenge is sweet,” but people prefer to say

Pinker (2012, p. 122) cites a similar case occurred during a police strike in Montreal in 1969: “Within hours of gendarmes abandoning their posts, that famously safe city was hit with six bank robberies, twelve arsons, a hundred lootings, and two homicides before the Mounties were called in to restore order.”

¹²⁰ “Two other members of the Military Police were arrested on Friday. They are accused of killing five homeless people in Boca do Rio on 3 February during the police strike” (Relea, 2012). Being homeless, in the same way as being an animal, is an extreme case of being weak and a very dangerous condition precisely because the risk of revenge is small.

¹²¹ Neitzel and Welzer (2012, p. 156).

¹²² Neitzel and Welzer (2012, p. 156).

¹²³ Neitzel and Welzer (2012, pp. 71-76).

¹²⁴ De Quervain *et al.* (2004), Singer *et al.* (2006).

that they seek justice, even though administering it is a “sad duty.”¹²⁵ The pleasure provided by certain behaviors is normally associated with practical benefits, and this is also the case with hunting. For example, hunting usually involves obtaining food, honing certain skills, and showing off these skills in public. So what hunting and other types of violent actions allegedly carried out for entertainment have in common is something else, such as the fact that people cannot think of any better explanation, or have any interest in finding one, while in other cases they do.)

As the possibility of revenge or punishment is a very important factor in inhibiting violence, impunity may be considered as a very important cause of violence. This is why impunity is a constant cause for concern for organizations who defend human rights. Note, however, that impunity is the lack of punishment, which normally means a lack of violence. The “fight against impunity” is usually a fight to exercise justified violence against those who have exercised unjustified violence, in order to discourage future acts of unjustified violence.

¹²⁵ After the Spanish Civil War, General F. Franco said that any honest Spaniard could not “abandon this sad duty,” referring to the treatment to be applied to the defeated (Preston, 2011, p. 616).

4 Benefits of life in society

An anthropologist once told me how two Eipo (a Papua New Guinean ethnicity) chiefs who were to fly for the first time reacted. They were not afraid to get on the airplane, but they made an intriguing request: they wanted the side door not to be closed. They were warned that up there in the sky it was very cold and, since they did not wear more clothes than their traditional penis sheath, they would be frozen. They did not care. They wanted to take a few large stones that, if the pilot was kind enough to fly in a circle on the neighboring village, they would drop on their enemies through the open door.

Frans de Waal

In the Bible, Joshua 8, it is said that after killing 12,000 men and women of Hai, Joshua built an altar unto the Lord in which, after sacrificing “peaceful victims,” he recorded the “Law of Moses”: the Ten Commandments, one of which was “Thou shalt not kill”. Joshua was not hypocritical, because the commandment said “Thou shalt not kill” assuming “your neighbor.”¹²⁶

A lot of human violence is collective. A lot of violence is individual, but is collectively approved. A lot of other individual or collective potential violence is not carried out because it is collectively disapproved. Hence, understanding human violence requires understanding how those “collectives” are formed and behave, as well as what collective approval and disapproval are and how they work.

The various forms and degrees of contact or relationship among individuals have different advantages and disadvantages, and the forms of relationship or society most suitable in each case depend on the balance between them.

Starting with the latter, social relationships or life in proximity to other individuals have at least two significant negative consequences. One of them is the increased likelihood of transmission of communicable diseases. The other is the increased competition for resources, or the decrease of these. For example, many foods tend to be evenly distributed throughout the territory. For a species that feeds on them, the best way to do it is being also homogeneously distributed.

¹²⁶ Hartung (1995), Graham and Haidt (2010).

If instead of that, individuals form groups, there will be over-exploitation where the group is at every moment, and that will cause food shortages, which the weakest individuals suffer the most.

The existence of sociability as seen in the human species, among others, requires these disadvantages to be more than outweighed by the advantages. Simplifying a little, it can be said that the main advantages are the benefits of behaviors that I will term “collaboration” and “altruism.”

Collaboration consists of coordinated behaviors between two or more individuals to carry out actions that cannot be performed individually or, at least, would be more expensive. A human example of collaboration is the collective manipulation of the environment to adapt it to the needs or desires of the partners: the construction of a bridge, for example. Others of the most frequent cases of collaboration involve the use of violence: cooperative hunting and collective defense against predators.

Another example of collaboration is similar to hunting and defense against predators, with the particularity that prey or predators are other individuals of the same species, or their resources. I.e., collaboration can also be used to appropriate the resources of conspecifics that live alone or in smaller groups, and to protect the in-group from the attempts of others to appropriate their resources. Collective aggression between neighboring groups has been observed in many species, including deaths at least in the case of humans, chimpanzees and ants. With these attacks the groups of male chimps acquire territory, their food sources and sometimes females¹²⁷ (“acquisition of females” may occur through coercion, but rather, it can also be a result of females preferring to change to the side that seems stronger or has a better or bigger territory¹²⁸).

It is likely that this form of collaboration has been especially important in the human species¹²⁹, and is largely the explanation of the existence of “groups” of the size of current nations: the size of groups increased along history because being bigger made them more likely to beat the rival groups¹³⁰; therefore being part of a minority is a dangerous situation¹³¹. (One consequence of the formation

¹²⁷ Goodall (1994), Mitani *et al.* (2010), Wrangham and Glowacki (2012).

¹²⁸ Nishida (1991), Manson and Wrangham (1991).

¹²⁹ According to Alexander (2006, p. 2), “it is possible that we alone may have as our principal ‘hostile force of nature’ (our principal competitor and predator) other groups within our own species.”

¹³⁰ Alexander (2007), Bowles (2012), Turchin *et al.* (2013).

¹³¹ Tooby and Cosmides (1988), Manson and Wrangham (1991).

of large states or other kinds of groups is the concentration of power in a few leaders. Such leaders, who often make decisions that affect the violence perpetrated or suffered by many other people, have their particular interests and weaknesses. They may, for example, be unable to fully understand all the costs of war, and thus have fewer qualms to start a war. Concentration of power, therefore, leads those interests and weaknesses to have a much greater effect on violence than would be possible in ancient societies formed by a few people, and History of human violence to be better understood knowing the biographies of leaders.¹³²)

Violence between groups can be seen as a logical consequence of the conjunction of two facts, life in society and the need for competition resulting from resources being limited: in social species, competition for resources is partly individual, within each group, and partly collective, between groups. This means that violence carried out by groups is partly a cause and partly a consequence of living in society: it is a cause because it is one of the reasons why individuals may do better living in group than alone; and it is a consequence because once there are groups, some competition occurs at the group level, and this competition involves violence.

(On the other hand, once groups are formed for these or other reasons, we can differentiate subgroups whose components work together for new motives. For example, some individuals can collaborate with others to move up the social hierarchy or to obtain a more advantageous distribution of the resources owned by the whole group.)

What happens to an individual who chooses not to collaborate, this way saving costs, varies depending on the case. In cooperative hunting, for example, the individual is probably left without his/her share of potential profit. In cases such as the construction of a bridge, however, the individual who does not cooperate is a cadger who without contributing anything can benefit from it as much as others. The fact that non-collaborators can fare better than collaborators, as they receive the same gain but without costs, could lead to natural selection choosing the former and such a collaboration to disappear, unless there are other factors that favor collaboration in these cases. As we saw in the previous chapter, a possible solution to the problem of the common goods is discipline by punishing cadgers. Another solution is that collaboration itself, which in cases

¹³² For example, “the unexpected death of rebel leader Jonas Savimbi is widely viewed as the event that directly ended Angola’s war” (Blattman and Miguel, 2010, p. 22).

like this is an altruistic act, offers other advantages that outweigh the cost of altruism.¹³³

The second advantage of living in society is that it makes possible the proliferation of altruistic acts, provided the cost to the altruistic individual is lower than the benefit to other individuals. By *altruistic act* I mean here an act which, *in itself* (without regard to possible future benefits), involves a damage to the direct reproductive success of the individual who performs it¹³⁴, while it favors other individuals' success. I will now discuss some of the reasons why there are altruistic behaviors.

The first one is that if an individual helps a relative, he or she may be benefiting the reproduction of their own genes, since relatives have more genes in common with that individual than the whole population, on average. The necessary condition for this cause of altruism to be evolutionarily feasible is that the benefit to cost ratio is big enough (it must be bigger the smaller the relationship). Therefore, kinship is a universal inhibitor of violence¹³⁵, and lack of relatives is a dangerous situation: "Where fraternal interest groups are powerful, a man without agnatic relatives is a moving target. In fact, tribal people can *explain* a horrified missionary or anthropologist an act of seemingly unprovoked murder, noting that the victim had no relatives."¹³⁶ Kinship can be a greater cause of altruism and sociability than it might seem, judging from today's societies: groups were probably small in our distant evolutionary past¹³⁷, and the smaller the groups is, the larger the average degree of kinship is.¹³⁸

¹³³ One of the advantages collaboration in joint projects can have is improving reputation (Milinski *et al.*, 2002).

¹³⁴ An individual's direct reproductive success is the success in that individual producing offspring (while the overall reproductive success that evolution maximizes is the process of the reproduction of genes, which can also be promoted through the reproduction of genetically similar individuals).

¹³⁵ Daly and Wilson (2003).

¹³⁶ Daly and Wilson (2003, p. 245). Another example: rates of infanticide at the hands of stepfathers and stepmothers are much higher than those of infanticide at the hands of biological parents: about 70 to 100 times higher, according to calculations based on data from Canada and the U.S. (Daly and Wilson, 2003, pp. 100-101).

¹³⁷ Cosmides and Tooby (2013, p. 203) suggest a size for ancestral groups of 25 to 200 individuals.

¹³⁸ "Among the Yanomamö, for example, two individuals picked at random from a village are related almost as closely as first cousins, and people who consider each other relatives are related, on average, even more closely," according to Pinker (2012, pp. 354-

We humans usually have a great ability to keep track of our assumed kin, but this ability is not necessary for the existence of altruism towards relatives: animals usually manage to preferentially benefit their relatives¹³⁹ by simple methods such as preferentially benefiting those who have lived more with them, who live nearby or who have a similar (visual, auditory, etc.) appearance.¹⁴⁰ Some of these same methods, such as assessment of cohabitation during childhood and similarity, seem to be also used by humans.¹⁴¹

A second explanation for altruism is direct or indirect reciprocity. Direct reciprocity, also called reciprocal altruism, consists in two individuals making, over time, different favors to each other; each one is an altruistic act, but together they benefit both individuals.¹⁴² Few cases of reciprocal altruism in animals are known¹⁴³, but it is very common in humans.

Indirect reciprocity is a sophistication of reciprocal altruism and is also prevalent in the human species. It consists of some individuals favoring other individuals with “good” reputation: individuals credited with having done favors to others, not necessarily to the particular individual now deciding whether or not to favor them.¹⁴⁴ Each individual act is again altruistic, but the balance between the cost of the favors you do to other individuals and the benefits of favors you receive from third parties, because you have earned good reputation by doing favors, is usually positive.

Third, altruism can also result from the so-called “costly signaling”: an individual has a trait (such as a peacock’s tail) or performs a behavior (as a favor) that has some cost, aiming at advertising that said individual is gifted and can afford to waste resources; this advertisement expenditure is adaptive if it is often

355). (This is related to a confusion that leads some authors to claim that there is a cause of altruism different from the ones I have discussed, termed “group selection.” There has been much debate about whether this claim is correct. But, in recent years, representative authors from both sides of the debate [Wilson and Wilson, 2007, and West *et al.*, 2011] have recognized that group selection, *when correctly understood*, can explain altruism, although it does not explain it in a different way: mathematical models of group selection turn out to be equivalent to those based on altruism towards relatives.)

¹³⁹ Griffin and West (2003).

¹⁴⁰ Hauber and Sherman (2001).

¹⁴¹ Burch and Gallup (2000), Lieberman *et al.* (2007), Lieberman and Lobel (2012).

¹⁴² Trivers (1971), Silk (2013).

¹⁴³ Silk (2013).

¹⁴⁴ Wedekind and Milinski (2000), Milinski *et al.* (2002), Nowak and Sigmund (2005), Alexander (2007).

rewarded in the future because the individual is preferred as partner or associate, or avoided as prey or enemy.¹⁴⁵ In the case of the favor, other individuals can, *as a side effect*, benefit from it. Several studies support this cause of altruism in humans, as advertising to potential mates¹⁴⁶ and in other cases.¹⁴⁷

Advertising is often directed primarily to signal power or status: “For example, in the Northwest American Kwakiutl tribal practice of potlatching, local chiefs compete to give away—or sometimes even publicly burn—enormous quantities of their own possessions, often going into great debts to do so. The chief who is able to give away or waste the most resources, and thus is able to bear the highest costs, is regarded as the highest status member in the group.”¹⁴⁸ Because burning or damaging possessions are interpreted as cases of costly signaling, it can be assumed that in the most common case in which possessions can also be given away the same cause is present, but now accompanied by other causes of altruism such as direct and indirect reciprocity and altruism towards relatives. Another, even more common, similar way of signaling status is luxury consumption.¹⁴⁹

Some of these causes of altruism and some other sources of benefit¹⁵⁰ can be considered in a more comprehensive way: each individual may offer some benefits as mate or associate and demand other benefits from potential mates and associates. The sum of offers and demands creates markets of mates and associates¹⁵¹ (in which some individuals are very valuable in either role, and therefore can also be demanding in their choice of counterparts.) This view highlights three interesting ideas compared with a vision of the choice of partners limited to direct reciprocity: the value of each individual depends on its comparison with other available individuals, the choice is not only based on direct reciprocity (but in all the ways of producing benefits), and the value of each quality varies over time depending on supply and demand.¹⁵²

¹⁴⁵ Zahavi (2002).

¹⁴⁶ Giskevicius *et al.* (2007), Iredale *et al.* (2008), Kruger (2008).

¹⁴⁷ Smith and Bird (2000), Barclay (2012), Fehrler and Przepiorka (2013).

¹⁴⁸ Giskevicius *et al.* (2007, p. 86).

¹⁴⁹ Nelissen *et al.* (2011).

¹⁵⁰ An example of passively conferred benefit is learning acquired by observing individuals who do well some useful task.

¹⁵¹ Noë and Hammerstein (1994), Gumert (2007), Barclay (2013). According to de Waal (1997, p. 202): “Groups of monkeys may be genuine markets for exchange of sex, support, grooming, food tolerance, alarm signals and all kinds of services.”

¹⁵² Barclay (2013).

Reciprocity and costly signaling share the desirability of altruistic behaviors being made public¹⁵³, so that advertising promotes altruism¹⁵⁴. So much so that in many experiments made in the laboratory and in everyday situations, participants behaved more altruistically when they could see a picture of two eye facing them in their surroundings.¹⁵⁵

Failing to reciprocate favors is socially frowned upon. Contributing little to community projects is also disapproved, and the lack of contribution is often punished, as we saw in the last chapter. (So a new reason for what might seem altruism is to avoid being punished.¹⁵⁶ The idea that an individual can get something from others either by their collaboration or altruism or using violence against them is a simplification. Actually both factors can take part in different degrees of the same behavior. For example, an individual can give resources to another in part for avoiding the other getting angry.)

Similarly, failing to make a favor very beneficial to others is often frowned upon, if its cost is very small in comparison. Consequently, if you prefer not to do the favor without being punished, at least with damage to your reputation, you may want others, or even yourself, not to know you have that opportunity.

An interesting mental experiment¹⁵⁷ has something to do with this: “Suppose you knew that a sinister person was going to call one number at random in your city at noon on Saturday and give the following ultimatum: ‘Unless you cut off your left pinky, I will kill an entire family’. If you knew that such a call could be made, would you somehow be away from your phone around noon?”¹⁵⁸ A team of researchers designed an experiment that to some extent

¹⁵³ Desirability, not need, because a person who makes an altruistic behavior not seen by anyone can however tell it and be believed.

¹⁵⁴ Hardy and Van Vugt (2006), Milinski *et al.* (2006), Barclay (2012), Yoeli *et al.* (2013), Winking and Mizer (2013).

¹⁵⁵ Bateson *et al.* (2006), Ernest-Jones *et al.* (2011), Nettle *et al.* (2013), Sparks and Barclay (2013). According to the results obtained by Sparks and Barclay (2013), the effect of the eyes may disappear after prolonged exposure to them. According to the meta-analysis of Nettle *et al.* (2013) of studies done with the “Dictator Game,” exposure to eyes increases the chance to give something, but not the average amount given: it seems that what matters most is not to give much but be seen giving something.

¹⁵⁶ This occurs in both humans (remember what I said about costly punishments in the previous chapter) and animals (Clutton-Brock and Parker, 1995).

¹⁵⁷ Cited by Kurzban (2010, p. 80).

¹⁵⁸ Kurzban (2010, p. 80).

resembles that situation. In the first task, each subject had to choose a distribution of money (provided by the team) for themselves and another individual, between two possible options. When an option was, relative to the other, a little worse for subjects but much better for the other person, most subjects chose that option, i.e., made a small sacrifice for a greater global good. Then, in a variant of the task, subjects were informed of how much they earned in each option, but not how much the other person earned, although they could easily find out. Many subjects chose not to find anything, and most chose the most favorable option for them.¹⁵⁹

Design errors are a final cause of altruism (and lack thereof). It can be expected that a certain proportion of altruistic acts result from errors, such as errors by evolutionary inertia, by which an individual can perform an altruistic act in a new situation in which it is not adaptive.¹⁶⁰ Since the tendency to altruism-selfishness is also a personality trait that varies quantitatively among individuals, the existence of “poorly designed” extreme individuals who are generally more altruistic or more selfish than convenient for their reproductive success can also be expected.

Extreme individuals are a minority, but not unimportant, not only for those who interact with them, but sometimes for entire populations. Hitler was an example of an extreme individual that changed history in a certain way. Other extreme individuals can have changed history in a very different way:

“And for all the shoe-pounding bluster of the Soviet Union during the Cold War, its leadership spared the world another cataclysm when Mikhail Gorbachev allowed the Soviet bloc, and then the Soviet Union itself, to go out of existence—what the historian Timothy Garton Ash has called a ‘breathtaking renunciation of the use of force’ and a ‘luminous example of the importance of the individual in history’.”¹⁶¹

¹⁵⁹ Dana *et al.* (2005). Larson and Capra (2009) replicated the experiment, with similar results.

¹⁶⁰ Johnson *et al.* (2003), Delton *et al.* (2011), West *et al.* (2011), Burton-Chellew and West (2013).

¹⁶¹ Pinker (2012, p. 262).

5 Similarity, classism and violence

Those who look like us are We, and the rest are They.

Rudyard Kipling

*We must defend the language with every means: / angrily, furiously,
with grapeshot. / We must defend the language in fierce fighting / with
tanks, with planes, and punching.*

Manuel María Fernández Teixeira

*“What is the worst thing about being autistic?,” Dawson says she
was asked when she was a girl. “That they hate us.”*

Investigación y Ciencia

We humans, like many animals, tend to favor those individuals who we resemble. We tend to favor those individuals who look like us based on their general anatomy or on their face¹⁶², those who sound like us in their speech (language, accent, etc.)¹⁶³, and those who look like us based on their attitudes and behavior.¹⁶⁴ Some studies even suggest that we occasionally tend to favor those who share similar characteristics such as their name, their birth date or type of fingerprint.¹⁶⁵

According to some studies, having a similar name or surname increases the attractiveness between individuals to the point of influencing the chances of them getting married.¹⁶⁶ This is probably an extreme and maladaptive case of influence

¹⁶² Burch and Gallup (2000), Krupp *et al.* (2008).

¹⁶³ Kinzler *et al.* (2007, 2009), Gluszek and Dovidio (2010), Cohen and Haun (2013). According to Kinzler *et al.* (2007, p. 12577), “United States history alone abounds with examples of linguistic discrimination, from the severing of the tongues of slaves who spoke no English, to the forbidding of the public speaking of German during World War II and the execution of the Russian speakers after the Alaskan purchase. Recent world history provides examples of linguistic paired with genocide of the Kurds in Turkey and of imposed language policies initiating anti-Apartheid riots in South Africa.”

¹⁶⁴ Fischer (2009). Some studies support that performing synchronized behaviors (as in the dances, military parades and some religious rites) promotes altruism towards synchronization partners (Wiltermuth and Heath, 2009).

¹⁶⁵ Oates and Wilson (2002), Burger *et al.* (2004), Jones *et al.* (2004).

¹⁶⁶ Jones *et al.* (2004).

caused by mental associations: the positive affect that people usually have towards themselves is transferred to self-associated elements, such as their names, and from them it can be transferred to whatever is linked to them, because of their resemblance, for example (the same explanation, as detailed above, applies to the fact that one's name can influence where one chooses to live and one's job¹⁶⁷). (This mental association is valid the other way around: in addition to perceiving similarity to us as positive, we tend to perceive positive elements as similar to us.¹⁶⁸)

In many other cases, this mental association is indeed adaptive, as for various causes treating better due to resemblance leads to favoring those who we are most interested in treating better. Let us explore these causes.

The first cause, which is relatively specific, is that people who are similar in mentality and in their communication pattern are more likely to understand each other and are more efficient in actions that require coordination or exchange. (If these actions are valuable, they will agree to choose those people as partners.)

The second cause is that, on average, individuals who are more different from us are more likely to transmit us diseases. This is primarily due to the fact that certain unusual features, such as skin spots, body asymmetries and strange behaviors are signs of disease, and many of them are contagious¹⁶⁹ (note that, even nowadays, it is difficult to ensure that pathogens have no influence on a disease, which can cause it to be transmitted: the fact that the gastric ulcers are greatly caused by bacteria, and thus can be fought with antibiotics, was for example discovered in the 1980's and 1990's. During our evolutionary past, the difficulty was presumably of greater order). According to some authors, a second explanation is that the pathogens carried by outsiders are averagely more dangerous than those carried by partners (as they may be new pathogens to which we have no immunity¹⁷⁰ yet) and, as I will explain later, outsiders tend to be more different to us than our partners.

¹⁶⁷ Pelham *et al.* (2002).

¹⁶⁸ For example, in a study whose subjects were mostly Caucasians, sympathizers of political ideas of Barack Obama thought that his skin was lighter than non-sympathizers (Caruso *et al.*, 2009).

¹⁶⁹ Schaller and Park (2011), Ryan *et al.* (2012).

¹⁷⁰ Navarrete and Fessler (2006), Letendre *et al.* (2010), Schaller and Park (2011), Reid *et al.* (2012). According to Letendre *et al.* (2010), the severity of pathogens in a region is provoked by ethnocentrism and xenophobia, which in turn constitute a significant cause

The third reason is that resemblance in appearance or behavior is a reliable indicator, although imperfect, of genetic resemblance. Therefore, when favoring those similar to us in appearance, we tend to favor those genetically similar individuals, which is what well designed living beings are expected to do. (Similarity in appearance can be a reliable indicator of genetic resemblance thanks to two unrelated reasons. The first is that genes influence living beings' features, whether they can be observed or not. The second is that the most related individuals tend to live closer to each other and to share the environment in a greater extent than the less related ones, thus sharing environmental influence on their characteristics. Sharing environmental influence includes sharing learning experiences, such as learning a language or a particular accent.)

A fourth cause of the relationship between resemblance and preferential treatment (comparable to the third cause which states that resemblance is an evidence of genetic relationship) is that resemblance is also evidence of being a collaborator. This is due to the fact that collaborators tend to be close individuals (as they try to live close to friends and away from enemies) who also look like us because they share the same environment even though they are not relatives (e.g., the resemblance in speech is greater when proximity between speakers increases). In addition, the exactness of this evidence is often artificially increased, as I will explain later. And, as mentioned in the previous chapter, as it is logical that we give preferential treatment to our relatives, it is also logical to do so with collaborators and reciprocators.

I have just stated four causes that lead us to better treat those who are similar to us, and one cause that explains why the members of a group, who tend to treat each other best, tend to look alike: the group members share the same environment. Additionally, we humans often consciously or unconsciously change our appearance to look like those people we most relate to or who share a similar interest, which are the same people we treat preferentially. This occurs for three reasons.

First, based on the above-mentioned causes, once the most similar individuals receive preferential treatment, other individuals, especially the less powerful, gain a new reason to want to look like the individuals who they interact with in order to receive a good treatment. Various studies have shown that people

of the civil wars and intra-state armed conflicts. However, according to other authors such as Barra and Curtis (2012), pathogens carried by outsiders are not more dangerous on average than those carried by in-group members.

often unconsciously imitate those with whom they interact¹⁷¹, that people who have a lower status or an increased need for social inclusion imitate more¹⁷², and that imitated people, also unconsciously, often react positively to imitation (e.g., increasing the degree to which imitators are liked, favored, or trusted¹⁷³; although a conscious and obvious imitation can have the opposite effect). People also tend to mould the ideas they express to those they believe their audience shares, and the desire for connection or social acceptance is one of the main causes of it too.¹⁷⁴

The second reason is that it is beneficial for people to imitate effective behaviors or characteristics which appear to lead to success. To do this, it can be useful not only to imitate the most successful people, but also the most frequent behaviors, as they might have become common precisely due to their effectiveness.¹⁷⁵

The third reason arises from the fact that memory limitations prevent us from keeping an exact record, according to our own experience, of the reliability in reciprocity and willingness for collaboration of each individual with whom we interact or, in general, an exact record of whom it would be most beneficial to favor. If we detect that this reliability or potential benefit is related to a certain marker or characteristic which is easily detectable, we then use this characteristic as a guide and award preferential treatment to those who have it.¹⁷⁶ Allowing

¹⁷¹ Repeated imitation can trace permanent features. This could explain why spouses increase their resemblance over time (Zajonc *et al.*, 1987). This convergence caused by imitation could be extended to all individuals who have lived together for a long period.

¹⁷² Gregory and Webster (1996), Lakin and Chartrand (2003), Lakin *et al.* (2008), Chartrand and Lakin (2013).

¹⁷³ Chartrand and Bargh (1999), Lakin and Chartrand (2003), van Baaren *et al.* (2003, 2004), Chartrand and Lakin (2013).

¹⁷⁴ Lerner and Tetlock (1999), Echterhoff *et al.* (2009).

¹⁷⁵ This cause, mentioned by Fessler and Navarrete (2003, p. 17-18), which they take from R. Boyd and P. J. Richerson, may lead to new reasons to treat the different worse. According to Hobbes (1983, p. 192-193), following the advice of someone is to honor them, while not following is to dishonor them. With imitation something similar may occur. If people tend to imitate what the most successful or the majority do, because both are evidence of effectiveness, being imitated becomes, in appropriate circumstances, a sign of success, and therefore imitation becomes a sign of respect. Not following the majority's habit becomes therefore a lack of respect (in chapters 6 and 7 I explain what I understand by *lack of respect*).

¹⁷⁶ Kurzban *et al.* (2001), Cosmides *et al.* (2003).

ourselves to be guided by these markers sometimes leads to mistakes, favoring those whom we should not or not favoring those whom we should. However, this could be a lesser evil given our cognitive incapacity to apply the exact individual treatment that is most convenient in each case. This fact often causes members of a group (or communities of interest or communities based on collaboration and reciprocity) to employ pre-existing markers (such as similar speech or skin color), or to design their own markers to identify themselves as members of the group: “Many groups provide their members with characteristic uniforms, badges, tattoos, ties, haircuts, hangouts, accents, musical tastes, or slang idioms.”¹⁷⁷ It can also lead to the decision to mark “others,” for example, when vast numbers of Jews were forced by law to wear a Star of David. When some of these “reliability markers” that indicate membership of a certain group, which I will refer to from now on as *hallmarks*, are adopted by “others,” the initial group may choose to abandon them, seeking to mark a difference between the two groups.¹⁷⁸ All this facilitates, as I said, knowledge of to which people it is most beneficial to offer preferential treatment.

(When a human group divides itself and a new nation is created, one of the first things that occur is the creation of new hallmarks: a new flag, a new anthem, new military uniforms, and even a new language. American English language irrupted in a relatively sudden manner when Noah Webster presented his *American Dictionary of the English Language*, stating that “as an independent nation, our honor requires us to have a system of our own, in language as well as government.”¹⁷⁹ Similarly, Hebrew as a common language was recovered by the Zionist movement, having previously been used only for liturgical and ritual purposes for about 1,700 years. Something similar may occur with schisms or

¹⁷⁷ Sigmund (2009, p. 8406).

¹⁷⁸ Berger and Heath (2008).

¹⁷⁹ Atkinson *et al.* (2008). These authors found evidence that when a language is divided into two daughter languages, a variation in the lexicon occurs at a clearly higher rate than during its subsequent cultural evolution as individualized languages. They admit two possible causes. One is similar to the “founder effect” studied in genetics and evolutionary biology: rapid changes occur when a non-representative subgroup founds a new colony separately from the main one. According to the other hypothesis, illustrated by Webster’s quote, the observed effect may “reflect a human capacity to rapidly adjust languages at critical times of human evolution, such as during the emergence of new and rival groups.” Many current languages were “born” following a contrary process, after standardization and the consequent loss of the original dialectal diversity of a territory.

religious divisions, in which new religions adopt arbitrary beliefs and rituals that can be used as hallmarks.¹⁸⁰)

These three utilities of similarity lead to the common desire of “being like everyone else (of the group),” or looking like most of the people who surround us, a desire that has a strong influence, though often unconscious, on human behavior¹⁸¹ (in contrast, people tend to differentiate themselves from individuals who belong to groups other than their own or that they dislike¹⁸²).

(This is particularly interesting when this desire to look like the majority or not differing from it affects attitudes, behaviors and feelings related to violence: there is evidence that what we believe to be normal in our environment has an influence on our attitudes towards ethnic minorities¹⁸³, on the level of compassion we feel for others¹⁸⁴, on the severity of punishments we carry out¹⁸⁵, on the level of guilt we feel after killing¹⁸⁶ and on the amount of money we are willing to give up to avoid a killing.¹⁸⁷ According to some authors, this desire is one of the reasons why soldiers comply with extreme and illegal orders, such as the assassination of civilians.¹⁸⁸)

The preference for one’s own group is so ingrained in human brains that it is apparent even in experiments that psychologists refer to as “minimal group paradigm.” Minimal groups are arbitrary groups of individuals that are formed on purpose without any initial importance, although they are somehow tagged. For instance, the subjects were once told that, depending on the order of registration in the experiment, they would either be assigned to the “triangle” or “circle” group. Such arbitrary divisions often suffice to cause a statistically relevant preference for in-group members. Several studies with minimal groups indicated

¹⁸⁰ Matthews (2012). The data provided by Bloom (2012) may be similarly interpreted.

¹⁸¹ Cialdini and Goldstein (2004), Cialdini (2007), Keizer *et al.* (2008), Nolan *et al.* (2008). This desire seems to be greater in collectivistic societies than in individualistic ones (Cialdini and Goldstein, 2004). According to Pinker (2012, pp. 561-565) a belief or attitude may sometimes become majority because people adopt it believing (wrongly at first), that it is the majority belief or attitude.

¹⁸² Berger and Heath (2008), Izuma and Adolphs (2013).

¹⁸³ Sechrist and Stangor (2001), Crandall *et al.* (2002).

¹⁸⁴ Tarrant *et al.* (2009).

¹⁸⁵ Rebers and Koopmans (2012).

¹⁸⁶ Webber *et al.* (2013). In these experiments, subjects believed they had killed bugs.

¹⁸⁷ Falk and Szech (2013). In these experiments, subjects could prevent the deaths of laboratory mice intended to be killed.

¹⁸⁸ Gigerenzer (2008), Richardot (2014).

that individuals tended to favor people of their own group¹⁸⁹, to unnecessarily harm out-group members¹⁹⁰, to learn to fear out-group members faster¹⁹¹ or to judge that certain behavior is less fair if enacted by out-group members.¹⁹² However, the effect is minor if compared to the discrimination used by individuals of real groups that are created through individual alliances or common interests: “The most severe forms of antisocial behavior seem, instead, to be restricted to groups that are construed as potentially coordinated, cooperative sets of individuals.”¹⁹³

Hallmarks and similarities have an influence on whom we decide to treat preferentially, and therefore on those for whom we inhibit (or not) our aggressiveness, which means that they affect the pattern of violence. That is to say, favoring individuals who are similar to us or in-group members usually implies aggressing preferably those who are different and out-group members.¹⁹⁴ Such is the case that difference can quite properly be considered as a cause of violence¹⁹⁵, although violence emerges from deeper causes like competition. From the moment where individuals enter conflicts of interest where the collective competition is more effective than individual competition (as explained in the previous chapter), each conflict can be simplified as a battle between those of a same group (*we*), to which one tends to resemble, and the enemy side (*they*), to which one tends to prefer being differentiated. If, in different conflicts, those “we” (as well as those “they”) often tend to be the same individuals, this simplification becomes even stronger and increases its influence on the way these individuals think and whose identification with the corresponding “we” also increases.

Furthermore, hallmarks and resemblance are a direct violence factor, for two reasons.

¹⁸⁹ Crocker *et al.* (1987), Jordan *et al.* (2003), Efferson *et al.* (2008).

¹⁹⁰ In an economic game; i.e., they cause them to lose money (De Dreu *et al.*, 2010, Experiment 1).

¹⁹¹ Navarrete *et al.* (2012).

¹⁹² Valdesolo and DeSteno (2007).

¹⁹³ Kurzban and Neuberg (2005, p. 667).

¹⁹⁴ Cohen *et al.* (2006).

¹⁹⁵ For example, during the Khmer Rouge regime in Cambodia (1975 to 1979), “Cambodians who wore eyeglasses” were executed “because it proved they were intellectuals and hence class enemies” (Pinker, 2012, p. 557).

The first is that people may feel so close to some hallmarks—such as their god, their prophet, their flag or their language—that it causes them to aggress those who they think have not shown them enough respect.

The second is that some people may use violence to force others to carry hallmarks (or abandon others) or to be like the majority. The desire of similarity or conformity is probably one of the justifications for female genital mutilation¹⁹⁶, male circumcision and the persecution of non-traditional dressing manners.¹⁹⁷

(Many hallmarks and their effects are to large extent cultural processes, and thus are subjected to the problem of cultural inertia. Every cultural element may arise from practical usefulness under certain circumstances, may be adopted by most of the population for such a reason, may become a popular hallmark and, finally, may be preserved despite a change of settings and the loss of its original usefulness. It can be argued that hallmarks exist for important reasons and that irreverence or lack of commitment towards them weaken the social cohesion which is all-important for successful competition with other groups. But the fact is that in a changing world, it is not possible to determine whether hallmarks are still useful for such purposes—not only for psychological satisfaction—nor if such irreverence or disagreement does more harm than good to the society that condemns it.)

In fact, individuals' characteristics usually do not vary abruptly but gradually along scales. That is to say, differences between individuals are gradual and not class-related. This is also applied to the "reliability in reciprocity and collaboration" characteristic. Hallmarks tend to transform an initial reality, in which some individuals are more reliable than others, into a perceived reality in which some ("we") are reliable and others ("them") are not. These hallmarks are

¹⁹⁶ According to the WHO (2013): "Where FGM [female genital mutilation] is a social convention, the social pressure to conform to what others do and have been doing is a strong motivation to perpetuate the practice."

¹⁹⁷ "In 2009, Sudanese journalist Lubna Hussein was arrested at a restaurant in Khartoum for wearing trousers. Like other women who were arrested on that day, she was accused of 'dressing indecently and immorally'. Most of them, like many others arrested each day on similar charges, pleaded guilty and were flogged" ("Amnistía Internacional", 2011, p.32).

both the consequence and cause for why people classify individuals into groups or classes.¹⁹⁸

The tendency to classify and think about individuals and individual cases as class elements derives from the intellectual incapability or difficulty to treat each individual on an individual basis: “category application is likely to occur when a perceiver lacks the motivation, time, or cognitive capacity to think deeply (and accurately) about others.”¹⁹⁹

Once an individual or an individual case is classified as belonging to a certain class or not, this classification can begin to have an influence on how they are perceived: “The meta-contrast principle is a basic finding in cognition where similarities among stimuli sharing a category membership are accentuated and, at the same time, differences among stimuli falling in different categories are accentuated.”²⁰⁰

A result of this *classist* way of thinking²⁰¹ is the aversion to blurred boundaries and inconclusive definitions, which despite being more realistic than the clear boundaries and definitions are also harder to handle mentally-speaking. This aversion is often taken advantage of and intensified on the most powerful side of the border, and may lead, for example, to efforts to establish new definitions of human beings that differentiate us from other animals while the previous definitions cease to be sustainable, or to the equally unsuccessful efforts to “scientifically” define Jews under Nazism.²⁰² It can also lead to genital surgery on intersex children (children with intermediate sexual characteristics) to

¹⁹⁸ They are a consequence because once you decide which individuals belong to your group, you wish them to be easily identified by hallmarks; and they are a cause because once you credit certain hallmarks, you tend to classify anyone who carries them as belonging to the signaled group.

¹⁹⁹ Macrae and Bodenhausen (2000, p. 105). “Simply stated, categorical thinking is preferred because it is cognitively economical” (Macrae and Bodenhausen, 2001, p. 241).

²⁰⁰ Reid *et al.* (2012, p. 474).

²⁰¹ By “classist” way of thinking, I refer to what Dawkins (1993) calls “discontinuous mind”: “Were you to tell me that a woman is five feet nine inches tall, and ask me to decide whether she should therefore be called tall or not, I’d Shrug and say ‘She’s five foot nine, doesn’t that tell you what you need to know?’ But the discontinuous mind, to caricature it a little, would go to court (probably at great expense) to decide whether the woman was tall or short. Indeed I hardly need to say caricature. For years, South African courts have done a brisk trade adjudicating whether particular individuals of mixed parentage count as white, black or coloured.” (Dawkins, 1993, p. 81).

²⁰² Koonz (2005).

improve their fit to typical definitions of female or male; and to opposition to mixed marriages, to linguistic contamination and interference, and to heresies and other impurities and heterodoxies.

The classist way of thinking relates to the tendency of believing that things or creatures that share the same name or “belong to a same class” also share an essence: “Research on psychological essentialism demonstrates that people perceive ‘natural’ categories—such as living organisms—as having an underlying, definitive, and unseen nature that makes them what they are... Psychological essentialism appears to be a prevalent cognitive bias, and has been identified among children and adults across a wide range of cultures... Across these contexts, people show a robust tendency to judge category membership as reflecting an immutable underlying essence.”²⁰³

The tendency to perceive groups or classes as individuals with independent minds and intentions is also related to classism. The statement “The human mental machinery led our species to have self-awareness but, at the same time, a sense of justice, willing to punish unfair actions even if the consequences of such outrages harm our own interests”²⁰⁴ is an example of this tendency. The more a group is cohesive, the more it seems to have a mind of its own, the more each of its members are assigned responsibility for the “collective behavior”²⁰⁵, and the more the group is assigned responsibility for the actions carried out by its members.²⁰⁶ This leads to a more specific cause of violence than general preferences towards the in-group: individuals can be seen as being jointly responsible for the aggressions carried out by “group partners,” and the victims’ group partners, especially those who most identify themselves with their groups, may seek revenge by attacking these innocent individuals or the whole group to which the aggressors belong, in a greater extent the bigger is the perceived entitativity of the group, with members sharing traits or goals.²⁰⁷ The involved

²⁰³ Dar-Nimrod *et al.* (2011, p. 442).

²⁰⁴ Cela-Conde *et al.* (2013, p. 10339).

²⁰⁵ Waytz and Young (2012).

²⁰⁶ Stenstrom *et al.* (2008).

²⁰⁷ Lickel *et al.* (2006), Stenstrom *et al.* (2008). After the attacks on 11 September, 2001, Bin Laden justified the attack on civilians as a response to the killing of innocent Muslims, for example the death of Iraqi children caused by the embargo against Iraq: “We shall kill the kings of the infidels, the kings of the crusaders and infidel civilians in exchange for those children they are killing. It is something that both the right and reason authorize If they kill our women and innocent people, we will kill their women and innocent people” (Bozarslan, 2009, p. 293). In 1996, during a television interview to U.S.

mental function is not required to be very sophisticated, since, as I mentioned above, among non-human primates revenge can be enacted by relatives or friends of the victim and directed to the aggressor's relatives or friends.²⁰⁸

For similar reasons, many individuals feel pride, shame or guilt for actions that other in-group members have carried out, whether they happened recently or centuries ago.²⁰⁹ This tendency can be taken advantage of by people who are not victims but belong, somehow, to a class of people that includes or included victims, in order to seek compensation from people who also are not guilty. For

Secretary of State Madeleine Albright, the following dialog was developed in relation to the U.S. sanctions on Iraq: "*Lesley Stahl*: We have heard that half a million children have died. I mean, that's more children than died in Hiroshima. And, you know, is the price worth it? *Albright*: I think this is a very hard choice, but the price—we think the price is worth it" (Rai and Fiske, 2011, p. 64).

In Spain, according to Preston (2011, p. 652-653), the underlying message of the General Lawsuit was that "all losers were guilty of every one of the crimes committed during the war in the Republican zone." The General Lawsuit was the "General informative lawsuit of criminal acts and other aspects of life in the Red zone from 18 July 1936 until liberation": a huge archive from which "evidence" was extracted with which suspects of crimes such as the opposition to the National Movement with specific acts or with "serious passivity" could be prosecuted.

²⁰⁸ Clutton-Brock and Parker (1995). Lickel *et al.* (2006, pp. 379-380) offer various explanations of why revenge for a certain act may be exacted on individuals who are not themselves the perpetrators of this act. One is that the people seeking revenge may believe that other members of the group encouraged or facilitated the act. Another is that they may believe other members of the group are guilty of not having prevented the act. These beliefs (which, by the way, may be partially correct) do not, however, explain cases of revenge exacted on undoubtedly innocent individuals, such as small children. Revenge exacted on innocent victims has, at least, two different causes. The first is that killing them removes the risk that in the future they will, in turn, seek to exact their own revenge. Daly and Wilson (2003, p.249) cite one case, recorded in Albania in 1912, when all 17 male members of one family were murdered; one of them was a 5-year-old boy (killing him was justified this way: "it was bad blood that should spread no longer"). The second is that through attacking innocent members of a group one is often also targeting the interests of the guilty individuals, just as they would be affected if their property or belongings were destroyed, since the relationships between members of a cohesive group are beneficial on average; attacking the son of a guilty individual, for example, is a very sure way of harming this individual, at the very least in terms of their reproductive success.

²⁰⁹ Brown *et al.* (2008), Wohl and Branscombe (2008).

instance, some authors believe this is the cause for permissiveness towards the violence used by the State of Israel.²¹⁰

Sometimes the phrase “he is not one of ours,” or whatever other phrase or hallmark that conveys the same message, is equal to a death sentence. The word “shibboleth” comes from a biblical passage (Judges 12:4-6). According to this passage, Galaadites defeated the Ephrathites in battle and took possession of certain fords of the Jordan River. When an Ephrathite fugitive asked permission to use the fords, they asked him if he was an Ephrathite, and if his answer was ‘no’, they forced him to say *shibboleth*. If he could not pronounce it right, and said *siboleth* instead, he was killed on the spot. 42,000 Ephrathites died this way.

Although the Bible is not a historically reliable source, it probably provides us with the broad worldview that its authors had. Nowadays, passwords can still be a matter of life or death. For example, during the Spanish Civil War, not answering (or even not answering fast enough) with a “Viva!” to a “Viva España!” could be cause of being killed.²¹¹

²¹⁰ Ridao (2004, cap. 10), Žižek (2009, p. 147).

²¹¹ Ruiz Vilaplana (2010, pp. 41-42 and 46).

6 Social hierarchies and rights

I think that “having rights” is a very delicate matter, because once someone has a right to something, that person can hit someone else on the head with that right.

Paul Feyerabend

We humans usually make a mental association between height and power²¹², which takes effect in two ways: taller people are perceived as being more powerful²¹³, and the more powerful believe themselves to be taller.²¹⁴ This association is evident for example in the use of high thrones and pulpits. Also in language: in the English language, there are many indications of a relationship between height and rank or pride, such as “Highness,” “haughty,” “highest,” “stuck-up,” “bow one’s head,” and “put one’s head down.” It also manifests itself in other events, e.g., since 1896, U.S. citizens have always elected a President whose height was considerably above average²¹⁵, and in the vast majority of elections it was the tallest candidate of the two most important parties who would win.²¹⁶

This mental association derives from the fact that in our evolutionary past, physical power, which correlates with height, was an important feature for securing power, although today, in developed countries, this is so only to a small extent. According to de Waal: “Human beings are still sensitive to the physical markers of rank. Short men, such as the candidate for the U.S. presidency, Michael Dukakis, or former Italian Prime Minister, Silvio Berlusconi, resorted to a bench for discussions and official group photos. There are photographs of Berlusconi smiling face to face with a leader who he is barely up to shoulder height with. We can laugh at his Napoleonic complex, but it is true that shorter people have to work harder to impose their authority.”²¹⁷

²¹² Schubert (2005).

²¹³ Stulp *et al.* (2012).

²¹⁴ Wilson (1968), Duguid and Goncalo (2012). Studies by Fessler *et al.* (2012) support the idea that holding a weapon makes people to be perceived as being slightly taller and stronger.

²¹⁵ Stulp *et al.* (2012).

²¹⁶ Cialdini (2007 , p. 290, note 7).

²¹⁷ De Waal (2007, p. 67).

Different individuals have, to a greater or lesser extent, different interests, which often come into conflict. If two hungry individuals, for instance, have at their disposal insufficient food for the needs of the two, may be of interest to both to appropriate themselves of all or most of the food and, therefore, their interests come into conflict. Probably the most primitive way to solve this is to hold a fight: whoever wins the fight gets the food. This solution is, however, very inefficient.

A fight is a risky business, not just when you fight against a stronger individual. Since fighting is something that can quite often be useful, evolution has favored the ability to assess the fighting ability of other individuals as compared to one's own. This ability enables better decision-making in conflict situations: to go ahead and fight if one considers oneself to be stronger than the other and, therefore, is likely to win the fight and, if not, to withdraw. In many species, individuals in conflict perform coordinated display behavior, which shows each opponent's fighting ability and evaluates the contender, behavior that usually weigh up the conflict. Fighting ability is shown and evaluated by various characteristics, variable according to the species, such as body size, teeth, voice volume, etc. If such displays fail to settle the conflict, escalation usually happens: the rivals begin to attack each other; the first attacks are low intensity and still have a demonstration function and a reciprocal evaluation of force function, allowing the opponent to withdraw with little damage; if this does not occur, the intensity increases until one withdraws or is defeated.

This solution is still a relatively poor one. For an individual on the brink of dying of hunger, it is not a good idea to sacrifice a meal because a competitor who also claims it seems a little stronger. An individual in this situation takes into account the relative fighting ability, but it is also worth his while noting his extreme need, and to fight even if his chances of winning are small although not zero. Consequently, the individual who seems stronger should also consider that his opponent may be willing to fight despite being less strong, and should also evaluate his own needs. Since "there is no small enemy" and even a small wound can become infected and cause death, it may be advisable not to fight a lesser enemy if one is quite satisfied. In short, it is efficient to take into account the difference between the fighting ability of both individuals, the extent to which the resource being the subject of the contention is useful or necessary, and just how willing the opponent is to fight, which is inferred from signs such as the characteristics of the emotions of anger and fear. So what was also favored by evolution was the ability to assess the willingness to fight, i.e., aggressiveness.

So what is actually evaluated in the potential rivals is a combination of fighting ability and aggressiveness or willingness to fight.

This way of deciding whether to fight or not makes deceit possible: the conflict can be won by managing to convey a greater force or aggressiveness than one really has. But the risk of being deceived may be a lesser evil: if an individual extremely anxious not to be fooled always decided to fight, no matter what the appearances were, he would effectively manage not to be deceived, but he would be given many beatings from individuals who, in addition to appearing strong and aggressive, really are. This lesser evil is very important for the issues discussed in this book because, ultimately, the misleading component of many justifications is designed to do just that: to put across a greater force or aggressiveness than there really is. It may not seem so on the surface, but I hope to show this in chapters 8 to 12.

When a group of individuals get together in a small space, conflicts quite frequently arise. This frequency and the fact that everyone can see the results of their own and others' struggles lead to each individual making a relatively good assessment of their own fighting ability in comparison with the ability of others. As this occurs, fights decrease and the situation approaches a hypothetical state of an absence of fights where, whoever considers that he/she will lose if he/she fights, gives in to whoever calculates that he/she is going to win.

In that situation, which occurs in social species, because there the condition of having a group of individuals (at least two) in a small space is met, an observer can describe a dominance hierarchy. A dominance hierarchy or social hierarchy is a hierarchy in which the order is determined by who normally dominates whom, or who normally gives in when two individuals are interested in the same resource. Since this giving in without a fight, typical of dominance hierarchies, arises from the evaluations that each makes of oneself and of others, and they improve the decision to fight or not, avoiding dangerous or unnecessary fights, dominance hierarchies are generally advantageous for all, in comparison with the initial scenario in which different individuals are unaware of their relative strengths, because they decrease the number of such dangerous fights. The reason that subordinated individuals remain in the social group is that they consider that living in solitude (or in another group) would be even more disadvantageous:

“These hierarchies function to give the dominant individual, without fighting, resources it would probably be able to seize if it did fight for them,

while the subordinate loses what it would be likely to lose anyway, but saves energy and the risk of injury. The strategy of being subordinate is to accept the lesser of two evils—dispersion and subordination—in the face of another individual's dominance. Where individuals survive very poorly outside a social group, dispersion may be the more costly alternative.”²¹⁸

Hierarchies are only relatively stable. Some individuals continuously win and others lose fighting ability, and as far as the former are concerned, it is sometimes worth their while, and this is what they do, to attempt to challenge superior individuals in order to ascend in the hierarchy. It can be said that in social species, the direct struggle for resources has been largely replaced by an indirect one: there is a direct struggle to rise in the hierarchy and, in turn, the position in the hierarchy largely determines access to resources (because it determines who gives into whom when a resource is wanted by more than one individual), as observed in the case of some primates called langurs:

“When an individual is forced to leave his post [as alpha male], the “victorious” animal soon takes his place. In this manner, the langurs clarify the relationships of dominance and submission. Later, when it is a matter of a real objective—a good position in a tree bristling with fruit or a shady place to rest—the lower-ranking individuals leave their place as soon as they see the dominant animal approaching, which does not need to impose himself with more threats.”²¹⁹

The individual in the highest position in the hierarchy is often called the alpha male. In many species, alpha males are quite aggressive with others, occasionally assaulting as a way of asserting their superiority. It seems strange that these particularly despotic individuals are tolerated, especially since a coalition of two or three individuals could normally beat them. The reason that they exist is that the success of such a hypothetical coalition requires a certain intellectual level that individuals in few species reach.

Among these are the normal adult chimpanzees.²²⁰ Among chimpanzees, therefore, the struggle to rise in the hierarchy gets complicated. No longer do

²¹⁸ Trivers (1985, p. 82).

²¹⁹ Sommer (1995, p. 96).

²²⁰ According to de Waal and Luttrell (1988, p. 110), “chimpanzees are less reluctant to intervene against the existing dominance hierarchy than are macaques.”

fighting ability and the ability to deceive alone matter. The ability to establish profitable partnerships becomes very important, which in turn depends not only on the diplomatic or political capacity, but also on having other valuable qualities that make an individual a convenient ally, such as strength, intelligence, experience in acquiring food and other tasks, beauty, generosity and social skills. I shall call “expanded fighting ability” (EFA) the fighting ability of each individual having the social support available for these other reasons.

Another important development is that many individuals may be interested in favoring certain *conducts*, and not just certain individuals. For example, many chimpanzees are benefited when other individuals manage to hunt an animal, due to the fact that some of that food will be for them. It makes sense, therefore, to protect that activity, and indeed among chimpanzees, unlike other primate species, often the alpha male has no power to snatch the hunt from the hunters: it is usually the hunters who give the orders in the share-out.²²¹ It is possible that another activity socially protected by the chimpanzees is reciprocity. So it seems judging by this event featuring the Puist female and two males:

“The rules are not always obeyed, and flagrant violation may be punished. An example of this occurred at a time when Puist had supported Luit to scare off Nikkie and later, when Nikkie made a show of force against her, Puist turned to Luit with outstretched hand to ask for his support: this did absolutely nothing to protect her against the attack by Nikkie. Straight away, Puist stood up against Luit, barking furiously, chasing him around the facility and even hitting him.”²²²

We can infer that this pursuit and aggression were a socially accepted punishment from the fact that Luit was much stronger than Puist. They both behaved as if they somehow knew that the others, especially the other females²²³, would not accept that Luit could use violence against Puist.

This, in turn, could be due to reciprocity among chimpanzees being generally beneficial and, thus, a negative attitude may be beneficial for those who do not return the favor, as noted by de Waal, the author of the description of the

²²¹ Boesch and Boesch (1989, p. 561), de Waal (1997, pp. 183, 196 and 198; and 2007, p. 202).

²²² De Waal (1993, pp. 304-305).

²²³ The fact that Luit was stronger than Puist and that the females were the main support that Puist relied on is not inferred in the paragraph quoted, but there are other data in de Waal (1993) from where the inference can be made.

event, by saying that clear violation of the rules can be punished. Of course, there is no need whatsoever for chimpanzees to bear in mind certain rules of acting as they did in this case. The point is that a generalized negative attitude towards a certain behavior opens up the way for that behavior being punished, not only collectively but also individually.²²⁴

Much of what has been said so far can be described by using the word “right,” taking “right” to mean a defensible interest, if necessary, with socially supported or at least accepted violence²²⁵: individuals of superior position in the hierarchy have more right to the resources than those in a lower position, the chimpanzees that manage to hunt are entitled to have the lead role in the share-out, while those who have done some favor seem to have the right to get it back.

Similarly, many animals have duties: they are likely to be attacked if they breach them. Most duties are passive: they only involve respecting the rights of others. But there are also active duties. One of them seems to be, among chimpanzees, returning favors. Another far more common one, or at least more visible one, is to make gestures of submission to the alpha male and, occasionally, to other high ranking males and females. (The gestures of submission can be derived from the gestures of appeasement or surrender that can be carried out in escalations. When an individual fighting with another decides to give up, he often adopts stereotyped postures or gestures that express submission and usually lead to immediate cessation of aggression by the opponent). Alpha males like to reaffirm their status from time to time, with assaults or at least threatening behavior, and sometimes demanding of their

²²⁴ De Waal also refers to two cases (among chimpanzees and Japanese macaques, respectively), of “punishments” to higher ranking individuals by individuals previously attacked by them in such a manner as to violate “the social code” (de Waal, 1997, pp. 298-299, note 4, and 204-205); and to studies that show a certain respect for the private property of sex partners and of objects in non-human primates (de Waal, 1997, p. 312, nota 18).

²²⁵ The relationship between violence and legal rights is clear: legal punishments are prescribed to punish acts and omissions to which individuals are not entitled. Leaving aside the question of legality, some studies find a correlation between violence and *feeling oneself to have rights* (Campbell *et al.*, 2004; Reidy *et al.*, 2008; Archer and Thanzami, 2009). Specifically, a good deal of violence ascribed to jealousy in couples is related to feeling oneself to have property rights (Daly and Wilson, 2003).

subordinates certain gestures of submission.²²⁶ Failure to perform the proper act of submission is a gesture of disrespect (or of irreverence).

I shall summarize the above in the case of chimpanzees. Let us suppose that two chimpanzees in the same group are interested in the same resource. To decide what to do—how much aggressiveness to show when faced with a possible share-out, how to fight, when to give in—each of the two individuals takes various factors into account, which are, among others:

1: *The difference in rank or hierarchical position*: mainly as a result of observing previous litigations, each individual knows who is above in the hierarchy. Therefore, *in principle*, they know who usually wins a fight if things go that far. So whoever is below, in principle, tends to give in, conforming with what is left over by the other or with less than half of the total. Rank partly depends on the support which, for the reasons of altruism discussed in Chapter 4, individuals can offer to others.

2: *The need* (i.e., *the value of the resource in dispute*): having a high or low need for the resource will make a chimpanzee more or less aggressive, in which case it may be the chimpanzee with the highest rank that cedes it.

3: *Reasons for altruism*: genetic relatedness and other reasons for altruism make ceding more likely, all else being equal.

4: *The social (dis)incentivization of behavior*: each individual may oppose or support the individuals who, regardless of their rank or individual identity, are performing *behaviors* that are appropriate for him to prevent or to foster. (I quoted above two examples of conduct that chimpanzees seem to want to defend, at least sometimes: hunting and reciprocity).

5: *The amount of resource available*: let us suppose that the only relevant factor was 1. In this case, the highest-ranking chimpanzee could eat its fill, and the other would have to settle for the leftovers. The existence of factors 2 to 4 opposes that outcome, because as the first eats, his need lessens and the motivation to do the other a favor and the social support leading him to leave something for the other may increase. This favors a tendency to demand not an absolute amount but rather a relative amount of the resource available. Thus, the absolute amount demanded depends in part on the amount of resource available.

²²⁶ De Waal (1993) cites three cases in which aggressions by an individual towards another/others ceased when the other or others began to make submissive gestures (pp. 149-150, 170-171, 199-200). Furthermore, said gestures are chiefly made following displays of force (pp. 121 and 124).

(Stated in terms of entitlement, individuals may be entitled to a certain proportion of the resources rather than a certain amount of resources).

6: *Attempts to climb the hierarchy*: it is appropriate, from time to time, to test one's own strength and those of the superiors, in order not to miss out on the possibility that the balance of power has changed and that one can now move up the hierarchy (these attempts to climb can also be performed outside the context of a struggle for a particular resource).

7: *Deceits*: deceptions influence decisions in different ways. For example, a chimpanzee can ruffle his hair to look bigger, or conceal his signs of fear.²²⁷

The main factors that we humans take into account in order to decide on what to do in similar situations of struggle for resources or position in the hierarchy—how much aggressiveness to show, how much to really fight, when to yield—are basically the same. The following pages will discuss some of these factors and how the fights take place in the case of the human species. Two of the most distinctive features of the human case are these: there are many more ways of cheating, thanks to speech; and the social (dis)incentivization for certain behaviors is far better developed.

The first thing that happens in the event of a conflict between two human beings is that both evaluate one another. To be more precise, evaluating oneself and others is something that is done involuntarily and almost continuously²²⁸, without the need for a specific conflict on the horizon, because social relations, at any time, pose hazards or opportunities for which it is appropriate to be prepared, besides the fact that in social species there is at least one permanent conflict: the fight for ascending (and for not descending) in the hierarchies. Even the evaluations made by strangers, based on external appearance, movement, or voice, perceived in photos or short videos or interactions, are relatively acceptable, especially regarding certain characteristics such as aggressiveness²²⁹ and dominance-submission.²³⁰

Specifically, people have enough capacity to assess physical strength and/or fighting ability of others as well as one's own, based on the observation of

²²⁷ De Waal (1993, pp. 193-194) observed two successive attempts to conceal an expression of fear.

²²⁸ Bargh and Chartrand (1999).

²²⁹ Carré *et al.* (2009).

²³⁰ Zebrowitz and Collins (1997).

the body, face and even of voice.²³¹ But individual fighting ability, while being important, is something that even in non-human primates has lost its relative value, while at the same time, all the characteristics that make it possible to rely on the help of others in the event of a fight took over. In a study with young subjects, it was found, for example, that the probability of responding to an insult with physical aggression depended on the evaluation of three components of the expanded fighting ability (EFA) in the author of the insult: size, presence of allies and reputation.²³² These are just three of the many possessions (such as money, political office, etc.), and characteristics (such as intelligence, skill, beauty, generosity, etc.) that influence the EFA in humans (in many cases, because they can make one a valuable ally, or may be provided in exchange for help in the case of conflict). All of these should also be included, along with the individual's fighting ability, in the evaluation of the EFA.²³³

Therefore, it is expected that humans have the ability to evaluate EFA and that such an evaluation is considerably important to us. Some authors maintain that self-esteem, whose psychological importance is evident, is a self-evaluation of the EFA (compared to the average).²³⁴ Humans also have the capacity to quickly and automatically evaluate the hierarchical position of the people with

²³¹ Puts *et al.* (2007), Sell *et al.* (2009a, 2010).

²³² Archer and Benson (2008).

²³³ That is why several studies have found a correlation between reputation related to some of these characteristics and the evaluation of the status of each participant (Hardy and Van Vugt, 2006; Anderson *et al.*, 2012): the acquisition of status depends on the EFA.

²³⁴ Barkow (1991, 2009) considers that self-esteem is a measure of status. Fessler (2001) expresses similar ideas. Gilbert *et al.* (1995) and Stevens and Price (2006) maintain that self-esteem measures the EFA (or, the status that one believes is deserved, which is different from what one actually has). Since status derives from the EFA, it is to be expected that there will be a very high correlation between both things. Only in rare cases does one change without the other changing; e.g., when a person knows that he is ruined or that he has won the lottery, but nobody else knows it, his EFA has changed, for having lost or won some money, but his or her status has still not changed, and while others are unaware of this, they will continue to treat him with the appropriate respect for his status. If in these cases self-esteem changes, as I believe it does, it would support the idea that self-esteem measures the EFA. That self-esteem is a self-evaluation of the EFA may, among other things, explain the relationship between threats to self-esteem and violence (Baumeister *et al.*, 1996).

whom we come into contact in relation to our own²³⁵, and from that evaluation arises the dominant or submissive conduct that we adopt, as well as the resources or rights that we consider it appropriate to claim. The following words, told by a worker of low social position regarding his doubt as to sit down or not to sit down in a waiting room, with a woman of an apparently superior position, are quite illustrative of the evaluations, be they more or less correct, that can be made after just a swift glance:

“The other day I went to the Social Security office... There were chairs and a free place next to this haughty cretin of a woman; and you can already imagine what she was like: slim, attractive, middle class, and I did not want to sit next to her, I felt I shouldn’t... I was ashamed of my weight, I felt fat and I started to sweat, moving awkwardly, shuffling my feet. I thought, “no, I will not sit there. I do not want to bother her”... You know that you are insulting them... By the way they look at you, you know you’re disgusting to them... They look at you as if you’re invading their space... you know what I mean, in a way that makes you feel “you shouldn’t be here”... It makes you want to get clear off out of there. It’s like a form of violence... like a kind of barrier that says, “Listen, sucker, do not dare to come near me... What the hell are you doing in my space?... We pay good money to keep scum like you away”... And that stresses you, leaves you exhausted... it’s everywhere... Then I looked at her how they look at us and thought, “Bullshit, I will not sit there.” She would feel uncomfortable voice rises as a sign of anger/pain and I would be ashamed!... Just sitting there, you know what I mean? It’s like something that is taken for granted. She realizes that and you bet that I do too.... They’re a shit, they have nothing, but it’s that air of knowing that they have a good body, clothing, and everything else.... We, on the other hand lowers his voice do not have it, we cannot have. We go around as if we had been beaten up, shuffling our feet, wishing we could hide somewhere.”²³⁶

²³⁵ Schmid and Hall (2004), Moors and De Houwer (2005). According to Oosterhof and Todorov (2008), the human evaluation of human faces can, normally, be reduced mainly to two dimensions. One, the *valence*, encourages one to approach or steer away from the evaluated individual. The other, the *dominance*, is very much related to physical strength. A threatening face, for instance, is one that is high in dominance and low in valence.

²³⁶ Fragment from an interview by the psychologist, Simon Charlesworth, of an English worker, quoted by Wilkinson and Picket (2009, p. 190).

Evaluations typically, as in the case of animals, settle the conflict. But if nobody gives in, usually one or both contestants *get angry*.

Emotions can be defined as sets of physiological, affective, cognitive and behavioral processes that tend to occur together in certain types of situations or, to be more precise, when individuals believe they are in certain types of situations. Emotions have been originated evolutionarily as the most suitable coordinated responses to significant and frequent situations throughout evolutionary history. Part of these processes that make up the emotions can be perceived externally: they are visible, audible, etc. This led to the fact that a communicative function has been added to the initial value of emotions, after these processes observable by other individuals have been interpreted.²³⁷ In other words, once a certain gesture reliably correlates with a certain situation, observers, through evolution or individual learning, learn that the gesture is a sign of the situation. For example, opening one's eyes wide, a gesture of fear or surprise, increases visual acuity in the periphery of the field of view, which is useful in dangerous or unexpected situations.²³⁸ And once that has happened, a high amount of white in the eyes is automatically interpreted by observers as a sign of danger.²³⁹

Once gestures are interpreted as signs of situations, it may suit the issuers, depending on the case in point, to conceal or exaggerate gestures, or to emit them in situations other than the original ones. This leads to a mutual influence between expression and interpretation that can differentiate emotions and their relationship with situations from their hypothetical initial state. For example, facial expressions of disgust seem appropriate to avoid ingesting or contacting likely sources of microbial pathogens, and they are also reminiscent of the motions of vomiting, a reaction to harmful foods that have already been ingested. But by being interpreted as a sign of rejection of hazardous substances and, thus, taking on a communicative use, they could be exploited to express, say, "great refusal," and today the gestures of disgust at some "morally unacceptable" behaviors are quite similar to gestures of disgust at, for example, bad tasting food or feces.²⁴⁰

²³⁷ Shariff and Tracy (2011).

²³⁸ Lee *et al.* (2013).

²³⁹ Whalen *et al.* (2004).

²⁴⁰ Chapman *et al.* (2009).

Anger is an emotion that physiologically and mentally (though not necessarily at a conscious level) makes ready for a fight.²⁴¹ Once the outward signs of anger were interpreted as a sign of preparation for a fight, these (probably accentuated) signs took on a new function: threat.²⁴² Today, apparently, one can get angry out of a context of a struggle in view of “injustice” or a lack of respect. But even though one has no intention of physically fighting, anger expresses, either sincerely or deceitfully, that one is willing to take harmful actions, directly or indirectly backed by violence, such as violence through legal actions.²⁴³ Since this is more typical of higher status individuals²⁴⁴, anger has also ended up being a sign of high rank²⁴⁵, although pride is the most typical emotion of the high rank²⁴⁶, as well as that of success in specific situations²⁴⁷ (as success leads to rising in the ranks).

²⁴¹ Ekman *et al.* (1983), Shaver *et al.* (1987), Roseman *et al.* (1994), Lerner and Tiedens (2006). It is more precise to say that anger makes ready for a fight that makes ready for violence: anger is not usually associated with the (foreseeable) violence of hunting, for instance.

²⁴² “Anger,” for example, is a motivational/emotional state (...), which plays a role both in mobilizing physiological resources for a violent action and in warning of the likelihood that such an action may be taken” (Daly and Wilson, 1997, p. 55). Obviously, in the preparation of predatory aggressions, threatening signs are not called for. Although anger can express a threat not to assault but rather not to do an expected favor, in this case there is yet a relationship with violence since, without using or threatening to use violence, an individual may be obliged to do the favor.

²⁴³ Kahneman *et al.* (1998), for example, in a study with subjects in the role of jury at a trial for damages, found a very high, almost perfect correlation between an evaluation of how indignant a conduct had been and an evaluation of the desire to punish it, and appreciable correlations, albeit lesser in degree, between said evaluations and the fines proposed. Conversely, anger improves credibility when one tables a claim for damages, according to the results obtained by Hareli *et al.* (2009).

²⁴⁴ According to the results by Allan and Gilbert (2002, p. 552), for example, those who feel themselves to be inferior repress their anger more, and all express their anger towards individuals of a lower rank than towards individuals of a higher rank. And according to Sell *et al.* (2009b), men’s physical strength and the physical attractiveness of women and men (as perceived by the same subjects), two important characteristics for rising in status, correlate with the propensity to get angry, as well as with a tendency to claim rights.

²⁴⁵ Knutson (1996).

²⁴⁶ Shariff and Tracy (2009), Shariff *et al.* (2012).

Given the close relationships between rights and violence and between anger and violence, it can also be expected that there is a relationship between anger and rights. And indeed, there is a high correlation between anger and the perception of injustice or of infringement of rights.²⁴⁸ This correlation could arise from the fact that when observing an injustice, we get angry. But I think it is normal that causality should be the other way around: we tend to call injustice to things that anger us²⁴⁹, just as we tend to call right what can be defended by

²⁴⁷ Fessler (2001), Tracy and Robins (2007). According to Fessler (2001), pride and shame are opposing emotions that originally led to, and informed of, gains or losses of status for the individual who experienced them. Later on, they were also associated with compliance or breach, respectively, of social norms, to the extent that social approval became increasingly important for rising in the social hierarchy. According to Fessler, in the majority of today's human cultures, people easily recognize the fact that pride and shame are related to dominance and subordination, although they are also linked to compliance with the norms, and only in some cultures has the first of these two relationships become no longer recognized. Fessler also notes that the typical features of shame and pride (looking into the eyes or not, enlarging or reducing the figure, allowing oneself to be seen or endeavoring to go unnoticed) are also noted in other animals, especially in primates.

²⁴⁸ Shaver *et al.* (1987), Miller (2001). Also recall the statements in footnote 244. According to Von Ihering (2008, pp. 53-54): "The pain that man experiences when hurt is the spontaneous, instinctive statement violently drawn out of him with respect to what law is for him, in his personality, first and foremost, and as an individual belonging to a class; ...Those who have not had the opportunity to measure this pain experimentally do not know what law is, no matter how much they have the entire *Corpus juris* in their heads; because it is not reason, but rather the feeling that can solve this matter; ...The force of law rests like that of love, in feeling, and reason cannot fit when that rules."

In the meta-analysis of the effect of injustice on "collective actions" (such as taking part in protests, or being willing to do it) by van Zomeren *et al.* (2008), these authors call "affective injustice" to *feeling* that one is a victim of injustice which, in practice, was measured, in the studies dealing with this matter, measuring discontent, resentment or the anger of the subjects. In the following footnote, I comment further on this meta-analysis.

²⁴⁹ One fact that supports this statement is that people usually know full well when they are angry, but do not usually know very well what the situations that they term as "unjust" have in common. Several studies have shown that people are often capable of stating that a certain conduct is immoral but are incapable of explaining why (Haidt *et al.*, 1993; Haidt and Hersch, 2001; Wheatley and Haidt, 2005; Cushman *et al.*, 2006; Hauser *et al.*, 2007).

This is also supported by the results of the meta-analysis by van Zomeren *et al.* (2008) cited in the previous note. According to these authors, "affective injustice" (i.e., being

socially accepted violence, whether or not we are aware of it. (As the isolated individual power became increasingly unsustainable and the power of one increasingly depended on the support of others, and as the general opinion of the community exerted an influence in that support, it became increasingly useful to make believe that individual preferences are, in fact, community preferences. This, presumably, not only led to a tendency to replace “this makes me angry” by “this is unfair,” but also, for example, “I like this” by “this is nice,” “this disgusts me” by “this is disgusting,” “I care about this” by “this is important,” “I am outraged at this” by “this is outrageous,” “I prefer this” by “this is better,” etc.)

If, in the face of the threat of anger, neither of the rivals gives in, an escalation often ensues, with increasingly severe acts of violence, until one gives in or is knocked out. An escalation could start with snide insinuations or insults, continuing with increasingly stronger pushing, etc. Snide insinuations and insults

discontent, resentful or angry) has a greater influence on participation in collective actions, such as protests, than “non-affective injustice” (i.e., *perceiving* a situation as unjust or undeserved). Even more significant is the fact that these authors opted for not studying the influence on collective actions of objectively measured injustice (not subjectively, as is the case both in affective injustice and in the non-affective cited), based on systematic historical analyses showing that the relationship between objective conditions and collective action is “weak at best” and, perhaps because of this, the research has focused on subjective conditions (p. 505).

One study by O’Mara *et al.* (2011) found few signs of “moral outrage,” anger caused by an “unjust” act regardless of what was the victim of the fact. According to the results, the subjects’ anger after an exclusion did not depend on if the exclusion was made by a method objectively just or unjust (according to independent criterion), but rather it depended to quite a considerable extent on if the person excluded was the very subject (whose anger was measured) or if it was another. Pedersen *et al.* (2013) obtained similar results.

One probable reason for why we tend to call “unjust” to what angers us is that, to some extent, probably greater in the past and increasingly lesser, the word “unjust” has and also had a more objective meaning, more akin to “contrary to the established norms,” for instance. The great use of terming it in this manner, to convince others to help us, anything that makes us angry because it damages our interests, could increasingly broaden the meaning of “unjust” to give rise to the current situation. An opinion similar to this is held by O’Mara *et al.* (2011, pp. 178-9), who believe that the use of calling “moral outrage” to normal, run-of-the-mill anger is to send a threefold message to oneself as victim, to the author of the damage and to the audience, a message that reads that vengeance will be justified and that the audience has the duty to collaborate in this.

are disrespectful, but physically harmless acts that have come to be generally interpreted as a devaluation or disregard of the status of the person insulted, putting the same in a position of having to choose between accepting the devaluation or submission and confronting the author of the offense.

This is the reason why the “originally relatively trivial altercations,” intended to defend honor or status, often end in murder, to such an extent that they can be termed as being the chief cause of urban homicides in the United States²⁵⁰, and a major cause of all violence worldwide.²⁵¹ An escalation of violence is, of course, the primitive form, but still widespread, of fighting in the event of conflict²⁵²; more civilized is the use of the threat of force from others, primarily from the institution of justice. Where said justice fails or is weak, as in remote territories²⁵³, in collectives engaged in illegal activities and in the lower

²⁵⁰ Daly and Wilson (2003, p. 140).

²⁵¹ Daly and Wilson (2003, cap. 6) This is one of the three main causes of violence, according to the writings by Hobbes in his “Leviathan” (as quoted by Pinker, 2012, p. 33): “So that in the nature of man, we find three principal causes of quarrel. First, competition; secondly, diffidence; thirdly, glory.

The first maketh men invade for gain; the second, for safety; and the third, for reputation. The first use violence, to make themselves masters of other men’s persons, wives, children, and cattle; the second, to defend them; the third, for trifles, as a word, a smile, a different opinion, and any other sign of undervalue, either direct in their persons or by reflection in their kindred, their friends, their nation, their profession, or their name.”

People often react with anger and violence to “social rejection”: a person’s *perception* that other(s) do not value them as much as they wish (Leary *et al.* 2006). Leary *et al.* (2006) say this reaction seems paradoxical, as it seems aggression will not lead to more social acceptance. But social value and status are not acquired only by cooperative behaviors, but also by competitive and aggressive behaviors (as can be seen in chimpanzees, which attack others who do not show respect to them).

²⁵² According to Pinker (2012, pp. 261-262), many wars have also been unleashed for reasons of “honor,” although this motivation is on the wane.

²⁵³ Nisbett and Cohen (1996) call “cultures of honor” those that, to a large extent, use the primitive, violent forms of solving conflicts and of fighting for status, cultures in which it is socially accepted to respond with violence even to small signs of a lack of respect which, in other cultures, are overlooked; and they provide proof for the fact that the appreciable difference between the rates of violence between the north and south of the United States are very much linked to the fact that the south is a culture of honor, or at least it is so to a larger extent than the north, as a result of a history with little weight brought to bear by the Law. According to these authors, these cultures of honor are favored by conditions such as the fact that wealth is easy to steal, as in the cattle-rearing

social classes²⁵⁴, there is still a need to assert oneself with direct physical violence.

Laws prescribe punishment for certain activities and, therefore, for certain ways of moving up the social hierarchy. If people cannot find legal ways to improve their status, or to obtain the resources to which they feel entitled, they often resort to illegal, often violent ways of improving status. If they do so on an individual basis, they are often called common criminals.

Sometimes they join together with other humans in similar situations to fight for the same end, but collectively. This is more common when individuals identify with a group, when they feel discontent, resentment or anger, and when they believe that the group has the capacity to change the situation.²⁵⁵ It is also more prevalent among young people²⁵⁶, where *rebellion* is a typical behavior. Although “political” or “ideological” struggles partly stem from strong preferences for one or the other forms of organization of society, it is also possible that some people who need to fight to move up the social hierarchy and obtain the appropriate benefits simply join the rebel group that has more chance of success, given the circumstances, regardless of their ideology. For example, these two statements by the historian Bozarslan suggest that sometimes the ideology is secondary: “In effect, the [Arab] States see war [in Afghanistan] as a relief: it is better that young people hear the call of a warlike romanticism and fight in another country than to take action in their home country.”²⁵⁷ “Nor is it

peoples, and there are few guarantees of being defended by the law and justice, as is the case in the settlements far away from the capitals. Under these conditions, those who are not capable of responding with violence, even at small lacks of respect, have many possibilities of being stripped of status and of resources.

²⁵⁴ Cooney (1997). According to Pinker (2012, p. 84), “many lower-status people... are effectively stateless,” because some of them “make a living from illegal activities like drug dealing, gambling, selling stolen goods, and prostitution, so they cannot file lawsuits or call the police to enforce their interests in business disputes. In that regard they shared their need for recourse to violence with certain *high*-status people, namely dealers in contraband such as Mafiosi, drug kingpins, and Prohibition rumrunners,” and because “lower-status people and the legal system often live in a condition of mutual hostility.”

²⁵⁵ Van Zomeren *et al.* (2008).

²⁵⁶ According to Mesquida and Wiener (1996), the proportion of men aged from 15 to 29 compared to men aged 30 or more is a very important risk factor in collective violence.

²⁵⁷ Bozarslan (2009, p. 162). Mesquida and Wiener (1996, p. 258) make a similar statement: “It is likely then that controlling elites astutely underwrite such risky

surprising that, throughout the Muslim world, former militants of the left “get recycled” as Islamists, changing belief without changing their way of believing;”²⁵⁸ in relation to the latter statement, other authors state as follows:

“The ascendancy of militant Islam and the Islamization of identity in the Middle East have been a reaction to the inability of secularism to address the widespread experience of suffering in the region. Islam provided a framework for reviving a historical memory of greatness and for articulating the possibility that dignity might be restored. Having said this, the militant Islamists, who have no real theological grounding, hijacked the discourse of humiliation, in promoting jihad, and perverted a central premise of Islam: to kill one person is to kill all of humanity (Koran 5.32).”²⁵⁹

Laws are a human particularity. Once made, they tend to be complied with for at least two related reasons: for their relationship with what is normal in society (people tend to want to be normal) and because they normally say which behaviors and omissions are to be rewarded or punished. But the fact that social (dis)incentivization of behavior is especially developed in humans does not mean that the most primitive social support for individuals has vanished: firstly, this is carried out in legal and illegal ways; and, secondly, people try to change the laws for the convenience of individuals that they seek to benefit, usually beginning by themselves and, to a large extent, they do so supported by violence or by the threat of violence. The laws that exist in a country have been established by those who had the power to establish them and, excepting error, are the most appropriate for their interests. When laws cease to be a good reflection of the interests of those with power to establish them, the laws are changed, either by fair means (i.e., without violence, although with the implicit threat of violence), through reforms, or by foul means, through revolutions or coups d'état. The institution and enforcement of laws, therefore, besides leading to a greater

undertakings as territorial expansion or colonization, especially when the alternative is having the aggressive tendencies of the male citizens directed at themselves.”

²⁵⁸ Bozarslan (2009, p. 180). Other examples of odd changes in ideology include the Spanish politician, Salazar Alonso, who in a short period of time, changed from “his ferocious anti-clericalism and republicanism” to “standing up for reactionary interests with the zealotry of the convert” (Preston, 2011, p. 64), and of the Nazi, Freisler, who as a young man, had joined the revolutionary forces of Lenin in Russia (Koonz, 2005, p. 201).

²⁵⁹ Fattah and Fierke (2009, p. 81).

inhibition of illegal violent (and non-violent) behaviors and encouraging some legal violent (and non-violent) behaviors, lead to a new cause of violence: that intended to change or defend laws or legal arrangements.

Today, in economically developed countries, a significant correlation between socio-economic status and reproductive success is no longer observed²⁶⁰, but certainly a high status does provide various rights and benefits. There are studies supporting the hypothesis that people who are wealthier or have a superior social position feel that they have more rights and act as if they considered that they have more rights²⁶¹, that people treat people better who bear external signals of high status²⁶², and that among the characteristics that heterosexual women value most in their potential partners are high status and wealth²⁶³ (which is closely linked to the fact that, as I said in Chapter 4, a good deal of costly signaling is motivated by the search for a partner).

But the fact that rights exclusively derive from the position in the social hierarchy is a feature of primitive societies, which as we saw, does not occur even in groups of chimpanzees, and much less so in human societies, as a result of the social (dis)incentivization of behaviors. I shall close this chapter by dealing with another interesting origin of rights: reciprocity.

Direct or indirect reciprocity is globally beneficial, if the logical condition that each favor produces a greater benefit than its cost is abided by. This may have led reciprocity to be socially supported, with violence if necessary and, therefore, reciprocity may also lead to rights. Now I can qualify the explanation given in Chapter 4 as to the usefulness of direct reciprocity. I said then that the use was in the probable return of more valuable favors than the favors previously given. But if reciprocity is supported socially, as illustrated by the fact that ungrateful humans are punished, at least, by being ascribed a bad reputation, it can be said that the usefulness of reciprocal altruism, to some extent, involves

²⁶⁰ Barthold *et al.* (2012). Although there certainly may still persist, at least in some cases, a significant correlation between status understood as leadership and reproductive success (Jokela and Keltikangas-Järvinen, 2009).

²⁶¹ Piff (2014) and Piff *et al.* (2012), respectively. There are also indications that physically stronger people tend to believe that they have more rights (Sell *et al.*, 2009b).

²⁶² Nelissen and Meijers (2011).

²⁶³ Sadalla *et al.* (1987), Buss (1996), Schwarz and Hasselbrauck (2012).

acquiring a right, in this case the right of the individual previously favored to return the favor (and *with interest*, i.e., a sufficiently valuable favor). This fact is also reflected in the etymology: the English verb, “oblige” means both “to force” as well as “to make a favor”, and the words “(muito) obrigado” and “much obliged” mean “(very) grateful”, in Portuguese and English, respectively.

Given that indirect reciprocity in the human species is also very important, it can also be foreseen that rights may derive from it and that people tend to behave as if doing favors or as if being a victim of injustice increases their right to behave selfishly later *with individuals unrelated* to previous favors or injustices, while behaving selfishly or through being undeservedly favored decreases that right. Several studies support the reality of this prediction.

For instance, in several experiments, it was found that subjects who were treated “unfairly” or who remembered cases where they were treated “unfairly,” later behaved more selfishly, and the effect was mediated by them feeling themselves to have more rights.²⁶⁴ In other studies it was found that subjects who, in a first condition, behaved “fairly” or “morally” seemed to feel with a “license” or to have “credentials” to behave badly in a second situation, and vice versa: those who first behaved “badly” were more likely to behave well in a second situation.²⁶⁵ (In extreme cases, some people react to their own bad behavior by inflicting self- punishment.)

These studies suggest that every human has a certain balance between the favors made and the favors received, and that if he/she does an extra favor, he/she expects to recover the balance receiving a favor from others or, in its absence, behaving more selfishly the next time. The question, then, is how a person sets that balance. If being rewarded is partly a right, and since rights are defended with violence, it may be suspected that the fighting ability is one of the factors: it is likely that one requires less reciprocity from the king than from a neighbor, for example, so that people of higher status will tend to be more

²⁶⁴ Zitek *et al.* (2010). Moschetti and Kues (1978) obtained similar results. Similar results have been obtained with regard to collective conducts and feelings (Wohl and Branscombe, 2008).

²⁶⁵ Monin and Miller (2001), Khan and Dhar (2006), Effron *et al.* (2009), Sachdeva *et al.* (2009), Jordan *et al.* (2011). This tendency towards compensation is opposed by a tendency towards consistency: to always behaving with the same degree of morality, in line with the concept that a person has of him/herself (or with the concept that he/she wants others to have of him/herself). The relative importance of one and the other tendency varies depending on the case in point (Conway and Peetz, 2012).

inclined to receive favors than to do them.²⁶⁶ (With this, in fact, I am not saying anything new: the interaction between reciprocity and rights linked to status is included in my list of factors that influence decisions regarding whether to attack or otherwise, as developed a few pages earlier).

An alternative way to maintain a favorable balance is through deceit. If a person manages to convince others that he/she does a lot of favors and receives few, or that the favors he/she does are more valuable than those received, he/she can count on the others to think they are, as a whole, in his/her debt, and may establish a more favorable balance.

²⁶⁶ This effect of status on reciprocity has been observed in macaques (Gumert, 2007).

7 Show of power

Hitler and Mussolini were only the primary spokesmen for the attitude of domination and craving for power that are in the heart of almost everyone. Until the source is cleared, there will always be confusion and hate, wars and class antagonisms.

J. Krishnamurti

In order to move up, or not down, in social hierarchies, to obtain the goods we desire and, above all, to being able to do this without constant and dangerous fighting, it is necessary to demonstrate power.²⁶⁷ In general, as suggested by Hobbes: “any quality that makes a man liked or feared by many others, or the reputation of having such quality, is power, since it is a means of gaining the support and service of many.”²⁶⁸ People often spend a great deal of time and money publicizing possession of these qualities, whether based on truth or not, in a number of ways.

Some of these ways are probably shared with other animals. For example, in many species a loud voice is a reliable indicator of physical strength²⁶⁹, which explains why males fighting and individuals defending their lives attempt to demonstrate their strength by making the loudest possible sounds. In Nature, chimpanzees sometimes hit trees to produce a sound and, whether in captivity or in the wild, if drums or cans are available they will use them to make loud noises by hitting them or rolling them along dry riverbeds.²⁷⁰ It could be suggested that the fondness of many human beings for noise originates from the same source.

Power can also be demonstrated by changing the physical landscape with large buildings and engineering works or, more modestly, with diggers and chainsaws. This helps to explain how common it is for trees to be felled but then not used in any way, as I have seen on numerous occasions. (Since this is a simple way of demonstrating power and certain animals, such as beavers, also

²⁶⁷ Power can be defined as “the ability to attain one’s desired goals” (Bargh and Chartrand, 1999, p. 472), and as “an individual’s relative capacity to modify others’ states by providing or withholding resources or administering punishments” (Keltner *et al.*, 2003, p. 265).

²⁶⁸ Hobbes (1983, p. 190).

²⁶⁹ Searcy and Nowicki (2005).

²⁷⁰ De Waal (1993; 2007, p. 66).

change the landscape around them, it would not be surprising to find that some animals also display power in this way.)

One way of displaying power that is more common in humans is the consumption of luxury goods. There are also many other ways, related to social subtleties and interpretations, which are typical among or exclusive to human beings. Various pages of Hobbes' *Leviathan* are dedicated to listing the various ways of obtaining or losing power and honor.²⁷¹ This list can account for a great deal of human behavior. He states, for example: "To obey is to honor, because no man obeys them whom they think have no power to help or hurt them."²⁷²

When in one county in Florida, the use of detergents containing phosphates was banned (as an anti-pollution measure) some inhabitants reacted by rebelling against this decision and travelling to neighboring counties to buy them. It seems that some families even bought enough to last them for 20 years.²⁷³ These events can be attributed to what is known as "psychological reactance," a tendency to object to the loss of freedom.²⁷⁴ Similar cases have also been identified. For example, in a study on 49 unmarried couples, the so-called "Romeo and Juliette effect" was observed: a positive correlation between a couple's love and desire to get married and the parents' objection to the relationship.²⁷⁵

People often do not like following orders, or even receiving them, perhaps because this could be seen as a sign of a lower hierarchical position. The authors of another study obtained results that support this interpretation of reactance, according to which "people are more concerned with managing the impression of autonomy than they are with actually maintaining autonomy."²⁷⁶

If people, and especially young people, tend to rebel against and disobey orders, we could ask ourselves why educators often give orders when it is difficult to ensure they are fulfilled. The answer could be that giving orders is

²⁷¹ According to Hobbes (1983, pp. 190-1), the relationship between honor and power is as follows: "The manifestation of the value we set on one another is that which is usually called honoring and dishonoring" and the value of a human being "...is, as of all other things, his price; that is to say, so much as would be given for the use of his power."

²⁷² Hobbes (1983, p. 191).

²⁷³ Cialdini (2007, p. 250).

²⁷⁴ Mazis (1975). This study showed that the affected people placed a higher value on detergents with phosphates, and a lower value on those without, compared to the unaffected inhabitants in a neighboring county.

²⁷⁵ Driscoll *et al.* (1972).

²⁷⁶ Baer *et al.* (1980, p. 416).

pleasant because it is a way of demonstrating power, as much as receiving them is unpleasant because it signals the power of others.²⁷⁷

Just as it is useful to demonstrate one's own power, it is also useful to demonstrate that others have less. Often, one single action can serve both purposes²⁷⁸, as is probably the case with showing a lack of respect for others. When, rather than displaying one's own power, it seems more important to demonstrate that others have less, the behavior is called 'humiliation'. Both lack of respect and humiliation are most effective—and therefore psychologically damaging—when performed publically. In addition, both cases often do not involve any direct material damage, since their effect on the reputation of power arises from the *interpretation* of such behavior.

Some ways of demonstrating power are relatively peaceful or dependent on interpretation. However, the best way to prove you have the power to attack is by attacking others:

“Conflicts of interest are endemic in society and it is probable that the interest itself will be harmed by the competing parties, unless they are deterred. An effective deterrent consists in convincing our rivals that any attempt to impose their interests at our expense will lead to penalties so severe that such competitive action would generate net losses that, otherwise, would not occur.

The usefulness of a credible threat of violence has been mitigated and overshadowed in modern mass society because the State has assumed a monopoly on the legitimate use of violence. However, in cases when this monopoly is more relaxed—whether throughout an entire society or in a lower, forgotten social class—the usefulness of this credible threat becomes clear.”²⁷⁹

²⁷⁷ Similarly, asking for advice or following somebody's advice is to honor them, while ignoring their advice is to dishonor them, according to Hobbes (1983, pp. 192-3). It could be hypothesized that giving advice is pleasant; that, in some situations, listening to advice, just as listening to orders, is unpleasant; and that a sophisticated way of annoying someone can be to order or advise them to do something they have already thought to do.

²⁷⁸ “In Talavera de la Reina (Toledo [Spain]), the mayor fined women who wore crucifixes” (a few years before the Spanish Civil War), according to Preston (2011, p. 51). It is difficult to discern the motives behind these fines (or the assumed corresponding ban), but it seems to me that one of the most likely explanations is that this was a way of demonstrating power and humiliating the enemy.

²⁷⁹ Daly and Wilson (2003, p. 140).

The fact that a good way of demonstrating the power to attack is by attacking others means that one possible benefit of all acts of aggression is to demonstrate one's power to both victims and third parties. This gives rise, therefore, to another near-universal²⁸⁰ motive for violence, just as occurs with the use of violence to harm competitors. This use of violence could be a significant cause of human sacrifice²⁸¹, torture, acts of terrorism, war²⁸² and, above all, many specific warlike operations. For example, the bombing of Hiroshima and Nagasaki served as a demonstration of power directed not only at the Japanese government, but also, according to the philosopher and Nobel Prize winner B. Russell, at the Soviet Union and the Asian nationalist groups that aspired to the decolonization of countries in Indochina.²⁸³ The demonstration of power can also be yet another cause, for example, of domestic violence and of violence carried out in the name of Justice.²⁸⁴ It also manifests in a multitude of relatively everyday situations.²⁸⁵

²⁸⁰ I say "near-universal" because at times it does not pay to appear powerful; for example, to avoid being detected by those who wish to attack and to defeat those with power.

²⁸¹ Gibbons (2012), González Torres (2012).

²⁸² Blattman and Miguel (2010).

²⁸³ Russell (1968, pp. 23-25). The Japanese government was sounding out its Soviet counterpart at least 6 months before the bombing about the possible conditions of surrender, and this government passed the information on to the US government. However, the possession of the atomic bomb allowed for an unconditional surrender to be demanded. According to Russell, dropping the atomic bombs also served to demonstrate power to the Soviet government, yet they did not need to be dropped on cities to achieve this effect. Hiroshima and Nagasaki was specifically chosen for two reasons. The first was in order to justify the bombing as a means of forcing Japan's unconditional surrender. The second was in order to intimidate the above-mentioned independency movements, such as the movement led in Vietnam by Ho Chi Minh which, nevertheless, would not be cowed.

Another example of the same motive was the bombing of villages such as Durango and Guernica during the Spanish Civil War (Preston, 2011, pp. 572-573).

²⁸⁴ Vidmar (2000), Barash and Lipton (2011).

²⁸⁵ According to Russell (2002, p. 170): "Since power over human beings manifests in the ability to make them do something they would prefer not to do, those who act out of a love of power are more capable of causing harm than allowing pleasure. If an employee asks their boss for time off for a legitimate reason, the boss, due to their love of power, will find greater satisfaction in denying the request than approving it. In the case of

The show of power is especially necessary when an individual has just been aggressed, because if aggressed individuals do not react *quickly* by making their own display of strength, it is likely that an onlooker may aggress them too, based on the new evaluation made by this party of the aggressed individuals' fighting ability. This situation has been observed in macaques, gorillas and baboons²⁸⁶, and we can assume that the same applies to the human species.²⁸⁷ When feasible, the most common way of showing power in these cases is revenge, which allows the recovery of status at the expense of those who harmed it.

Another option, chosen especially when revenge is not feasible, is displaced aggression, the aggression to an innocent third party.²⁸⁸ Displaced aggression is inferred if statistically it is more likely that victims of an attack will then go on to harm others. In this way, displaced aggression has been proven to exist in human beings (and to be, in the human species, preferentially directed towards individuals from out-groups)²⁸⁹, as well as in animals. (In addition to its adaptive value, displaced aggression has a physiological value: displaced aggression is a very good means of reducing psychological stress, which if left to build up over extended periods of time is harmful to health.²⁹⁰ In regard to this fact, it can be hypothesized that displaced aggression may also be due, in part, to a design error.²⁹¹)

requesting a building permit, the insignificant civil servant assigned to the application will obviously find much greater pleasure in saying 'no' than 'yes'."

²⁸⁶ Barash and Lipton (2011, p. 43) cite several studies supporting this statement.

²⁸⁷ Daly and Wilson (2003).

²⁸⁸ Barash and Lipton (2011).

²⁸⁹ Marcus-Newhall *et al.* (2000).

²⁹⁰ Sapolsky (2011).

²⁹¹ Recent experiments (Miller *et al.*, 2014) have showed that people feel a certain aversion to the imitation of actions that cause serious harm, for example, to simulating the stabbing of another person. This can be explained, to a certain extent, by the brain confusing the simulation with an actual stabbing. On the other hand, stress amongst laboratory rats that are given electric shocks is reduced when they are allowed to harm other rats and also in other cases, such as when they can gnaw a block of wood (Sapolsky, 2011, cap. 13). In the first case, the (displaced) aggression serves the adaptive use of demonstrating power. In the other cases it does not, or only does so to a small extent. However, as with the simulated stabbing, perhaps the brain, to a certain extent, confuses gnawing a wooden block with biting a fellow rat and it is this confusion that leads to reduced levels of stress. If this is the case, it may also be said that the brain, to a

Another type of violence that is similar to displaced aggression is aggression caused by frustration, when the person or animal attacked is also not the perpetrator of the harm caused.²⁹² For example, the witch hunts that took place in Europe between the 15th and 18th centuries²⁹³ were more frequent in years of bad harvests, suggesting that the frustration caused by a poor harvest encouraged people to find someone to harm: “Harmful events, from minor transgressions to international disasters, arouse the desire to identify a blameworthy culprit.”²⁹⁴

In principle, it would appear that the desire to appear powerful would only cause someone to act (violently or non-violently) if there was at least one witness to their actions or if someone would become aware of them in the future. What power would be demonstrated by hunting an animal or disobeying a ban on littering, for example, if nobody will find out about such acts or about the perpetrator?

However, at least one person will always know about such acts: the perpetrator. The self-demonstration of power gives the perpetrator confidence in their power and, as will be explained in Chapter 9, this confidence will help in the future to transmit this sense of power to others. Therefore, any violent behavior, no matter how isolated or unknown it may be, can be useful, albeit in an indirect manner, in order to demonstrate power to others.

certain extent, confuses harming an innocent third party with harming the person who attacked us, being the latter the person we most want to harm if we could. (The fact that we may enjoy drawing horns on a photo of our enemy, or using it as a dartboard, could also be a result of a similar confusion).

²⁹² Berkowitz and Harmon-Jones (2004), Renfrew (2005).

²⁹³ Levack (1995).

²⁹⁴ Alicke (2000, p. 569).

8 Justifications as a cause of violence

So convenient a thing is to be a reasonable creature, since it enables one to find or make a reason for everything one has a mind to do.

Benjamin Franklin

It is always possible to justify the injustices that we took advantage of by some sort of sophistry.

Bertrand Russell

What people consider to be the reasons for their behavior are often used to justify their decisions:

“Quite often ‘I decided in favor of X’ is no more than ‘I liked X’. Most of the time, information collected about alternatives serves us less for making a decision than for justifying it afterward. (...) We buy the cars we ‘like’, choose the jobs and houses we find ‘attractive’, and then justify those choices by various reasons that might appear convincing to others who never fail to ask us, ‘Why this car?’ or ‘Why this house?’.”²⁹⁵

It has been found that at times, justifiable options are more likely to be chosen than those that are not.²⁹⁶ As a result, the possibility of justifying a behavior, whether violent or not, makes it more likely that it will be carried out. Therefore, the possibility of justification is a cause of violence.

Several studies support this claim. For example, in some experiments on displaced aggression it has been observed that aggression is facilitated by a normally unimportant factor (consisting of some very slightly guilty behavior or trait of the individual who is later aggressed), but which seems to become important when a previously aggressed individual is in a position to commit a displaced aggression. My interpretation is that the trigger is anything that provides at least a vaguely credible justification.²⁹⁷ In this way, the aggressor can expect less severe punishment or even no punishment at all if the aggression is

²⁹⁵ Zajonc (1980, p. 155).

²⁹⁶ Shafir *et al.* (1993), Wilson *et al.* (1993), Mercier and Sperber (2011, sección 5).

²⁹⁷ The authors of these studies, such as Pedersen *et al.* (2000, 2008) interpret their results as a product of mental associations.

judged. After taking this into account, aggression is more likely. (By “after taking this into account” I do not mean that the individual in question necessarily makes this prediction: if this type of situation has been sufficiently commonplace throughout the evolution of mankind, normal human psychology may have been designed so as to promote violence when signs of the “presence” of a viable justification are detected.)

In another experiment, some of the subjects (those who avoided expressing homophobia out of social pressure and not for internal motivation) tried to attack a man if they had inferred he was homosexual rather than if they knew he was homosexual, probably because in the first case they could more credibly deny that their aggression was due to their homophobia.²⁹⁸

Some more serious real cases can also be explained by taking into account the effect of justification. During World War II, a number of conversations among German prisoners of war were secretly recorded. According to the transcripts of these conversations, a soldier, explaining what they did in response to certain violent actions by the Red Army against the German army, said: “Of

²⁹⁸ Cox and Devine (2014). The most likely interpretation for the results of another experiment is that the possibility of justification favored an “unfair behavior.” The experimenters wanted to test the popular belief that testosterone causes antisocial, selfish and even aggressive behavior. The study subjects were women who were either given a dose of testosterone or a placebo, without being informed which they had received. At the end of the experiment, they were asked what they believed to be the case; the women who considered they had taken testosterone behaved more “unfairly” (in a less egalitarian way) in a certain distribution of money than those who believed they had ingested the placebo. The most likely explanation is that the availability of a justification (“I was given testosterone”) facilitated the unfair behavior (Eisenegger *et al.*, 2010). The average effect of belief in taking the testosterone was greater than the average effect of taking the testosterone (and the other way round, as taking testosterone increased the “fairness” of the behavior).

The belief that testosterone causes aggression is so popular that according to these authors, “steroid-induced rage” has been used as an extenuating circumstance in trials in the United States. This is an example of the increasingly common use of biological or psychological information to present extenuating circumstances. In turn this has resulted in the desire to distort the description of the world, to prevent some criminals from taking advantage of the correct description in raising extenuating circumstances. For example, the authors of a widely consulted psychiatric manual, the *Diagnostic and Statistical Manual*, avoided including descriptions of some disorders related to paraphilias and sadism, in order to prevent some criminals from claiming they are sick (Miller, 2014, p. 70).

course, when they did these things, we took advantage of it and returned them increased by a factor of ten or twenty or one hundred; not to give them a taste of his own medicine, in its raw and animal way, but we did as now I will tell you...”²⁹⁹ “We took advantage?” It is as if these violent actions of the Red Army had a good, beneficial side. Perhaps the good side was that they provided a justification.

The video titled “Collateral Murder” released by Wikileaks also has something to do with justifications. This video, recorded from a helicopter, shows its crew firing on civilians behaving peacefully allegedly mistaken for enemy combatants and, later, another attack on two men who came to the rescue of a wounded survivor. Between both attacks, a soldier says, as if addressing the wounded man crawling on the ground trying to reach safety: “Come on, buddy. All you gotta do is pick up a weapon.”³⁰⁰ If he did, the soldier would then have a justification to kill him.

In the second attack, the helicopter fired on the two men and the wounded man they were about to put into their van. When ground forces reached the zone, they found two injured children inside the van. On discovering this, one of the crew of the helicopter says: “Well, it’s their fault for bringing their kids into a battle,” and another one answers “That’s right.”³⁰¹

The whole event, which resulted in some 12 deaths, appears to have been triggered by a succession of “misidentifications”: one of the gunners says, for example: “Have five to six individuals with AK47s [Kalashnikov rifles]. Request permission to engage,”³⁰² when the closest thing that I was able to see after watching the video several times is something that could have been a rocket launcher (an RPG, as a soldier says), although it could also be the camera of the Reuters photographer who was one of the casualties of the attack. Were they just misidentifications, perhaps favored by prejudices about the “Islamists” and the

²⁹⁹ Neitzel and Welzer (2012, p. 115).

³⁰⁰ From 8m 31s to 35s, approximately, in the video. I am referring to a short version of the video, available on YouTube (Collateral murder, 2012). The events took place on 12 July 2007 in Baghdad.

³⁰¹ In 15m 29s of the video cited in the previous footnote.

³⁰² In 3m 45s of the same video.

general atmosphere of danger and war the soldiers were experiencing³⁰³, or there was also some desire to have a justification?

And so, when is a justification feasible? In other words, which aspects characterize successful justifications?

I use the term *justification* to mean an explanation connected to a behavior whose final effect or goal is to improve the assessment or response to the behavior by the recipients of the explanation. According to this definition, the justification does not necessarily say anything about the circumstances or motivations of the behavior; for example, you may have the immediate goal of flattering the audience, or showing affection or respect:

“The reaction of the perpetrator to his or her act and its consequences also affects the victim’s response. For one thing, the perpetrator’s reaction can provide information about his or her state of mind. In general, harmdoers who communicate to their victims that their actions were inadvertent or uncontrollable, or that they occurred under mitigating circumstances, typically provoke less anger.

However, the perpetrator’s reaction does more than neutralize the offense by characterizing it as nonintentional, unforeseeable, or unavoidable. It can also convey respect for the victim and affirm his or her status. The very fact that the perpetrator thinks that the victim is due an explanation signals respect for the victim and tends to diminish the victim’s anger.”³⁰⁴

(Justifying an action can have two drawbacks. One is that the justifications may contain information that you may have preferred not to mention had you not received pressure to justify. The other is that, if you say why you did what you did, you will necessarily be telling a story, whether or not you are aware of it, because you do not know the real reasons for your behavior; this may be harmful if a listener finds evidence that contradicts your explanation and because, even if this does not happen, you are left committed to the story.³⁰⁵ For these reasons, we

³⁰³ Neitzel and Welzer (2012, pp. 331-335) discuss the influence of the situation of war on the events this video shows, as well as their resemblance to actions of the German army during World War II.

³⁰⁴ Miller (2001, p. 537).

³⁰⁵ For example, in the 1970s, in Oxford, the board of directors of a female residence debated if overnight male guests were to be allowed. Some directors rejected the idea,

are mostly willing to provide explanations to people who are respected or feared, while asking or demanding explanations is something that usually only corresponds to the most powerful people, all of which can cause justifications to become signals of respect. Once justifications have become a mark of respect, the mere fact of saying “I did it *because* ...” can have some justifying effectiveness.³⁰⁶

Like any explanation, a justification can be misleading and, given the high frequency with which normal people cheat³⁰⁷, this is likely to be quite often, meaning that the deceptive component of justifications is a potentially important cause of violence.

Self-defense is usually a good justification. It can therefore be expected that people will endeavor for their aggressions to be considered as self-defense even though they are not, or only to a small extent. A misleading way of claiming self-defense is by blaming your enemies for a damage they did not cause. The American government, for example, declared war on Spain after accusing the Spanish government of the sinking of the battleship Maine in 1898. It is likely that the charge was undeserved and designed to justify the war, in the same way as the accusation leveled against the government of Iraq 105 years later of its

probably because of their conservative moral ideas, but the objection they raised was that night visits would result in additional costs for hot water and the replacement of mattresses. It was then decided to allow them to stay after paying a small fee to cover these costs (Sandel, 2011, p. 60). Those opposed to this solution could not object to it without leaving themselves open to accusations of being hypocrites.

³⁰⁶ In an experiment (Langer *et al.*, 1978) the experimenter asked each subject who were about to use the photocopier in a library, to let him pass in front, in one of the following three ways: (1) “Excuse me, I have 5 (20) pages. May I use the Xerox machine?”, (2) “Excuse me, I have 5 (20) pages. May I use the Xerox machine, because I have to make copies?”, (3) “Excuse me, I have 5 (20) pages. May I use the Xerox machine, because I’m in a rush?” When the favor asked was not very big (when the number of copies was lower than the number of copies the subject needed), the percentage of subjects who accepted the request was 60% in case (1), 93% in case (2) and 94% in case (3). In case (2), the obvious statement “I had to make copies” was not really adding any new information, so it seems the advantage of (2) over (1) is just the word *because*. Apparently, this word automatically triggered a tendency to grant a request if it is justified (what can be taken advantage of). (When the favor requested was bigger, the “because” had no effect.)

³⁰⁷ DePaulo *et al.* (1996), Ariely (2012).

possession of weapons of mass destruction, used to justify the invasion of the country.³⁰⁸

Another possibility is the creation of false evidence of guilt in order to justify violence. In Vietnam, “entire villages were devastated where ammunition of Soviet origin had been left so that it could be attributed to the Vietcong.”³⁰⁹ An even more extreme possibility is to attack your own assets in order to blame for the attack the enemy you want to aggress. This was used as an excuse in the Japanese invasion of Manchuria in 1931-1932: “In September 18, several units of the Japanese army blew up a section of the railway in South Manchuria, controlled by Japan, blaming the Chinese for this.”³¹⁰

A similar situation occurs when a supposedly democratic foreign Government or social group or both together, want to overthrow a democratically elected Government from power: they can sabotage its economy and create insecurity, and then execute a putsch “to save the economy and restore safety.” According to declassified documents³¹¹, this is what happened during the three years prior to the coup d’état of 11 September 1973, in Chile, which was followed by 17 years of military rule. This case presented the peculiarity that at the start of this process in 1970, the situation in the country was especially peaceful.³¹² Something similar may have occurred in the months preceding the

³⁰⁸ Much effort was invested, in vain, trying to find weapons of mass destruction in Iraq. According to Sampedro (2013, p. 129): “The weapons in question have not appeared, although at one time one thousand and four hundred experts, under the command of general Dayton, have been dedicated to search them. Nor uranium, chemical weapons, or SCUD missiles were found, to the point where *Time* magazine talked ironically about weapons ‘of mass disappearance’.”

³⁰⁹ Neitzel and Welzer (2012, p. 336).

³¹⁰ Rees (2009, p. 28).

³¹¹ Eleven days after Allende won the presidential elections of September 4, 1970, in Chile, Nixon asked the CIA to “prevent Allende coming to power or overthrow him once there” (Kornbluh, 2013, p. 28). The CIA prepared a plan whose third and final stage was to “promote the creation of a ‘propitious environment for the putsch through the use of propaganda, disinformation and terrorism’ in order to provide a stimulus or pretext for the military to take action” (Kornbluh, 2013, p. 43).

³¹² According to CIA documents declassified in 1970 and cited by Kornbluh (2013, pp. 45 and 49): “there is no excuse to put the military in motion, in view of the total calm that prevails throughout the country”; “The most important thing is the psychological warfare in the interior of Chile. It is pointless to attempt to ignite the world if Chile is a haven of peace.”

military coup d'état in Egypt on 3 July 2013.³¹³ Interestingly, in its editorial on 4 July 2013, *The Wall Street Journal* said that "Egyptians will be fortunate if their new ruling generals follow the example of Chile's Augusto Pinochet, who took power in the midst of chaos, but recruited reformers who supported the free-market and generated a transition towards democracy."³¹⁴ On August 1, the American Secretary of State, John Kerry, said that the generals deposed Egyptian President Mohamed Morsi to "restore democracy,"³¹⁵ even though Morsi was the "first civilian President elected in the polls in the country's history."³¹⁶

In many cases, the most serious clashes between individuals or groups are the final phase of an escalation of violence, so both sides can claim that their violence is a response to the violence of the enemy, and the assertion may be quite credible because it is *partly* true. This is the case, for example, in the conflict between Palestinians and Israelis.³¹⁷

Most of these deceptions are relatively crude. A judge could eventually prove that the justifications are misleading, and therefore that the violence they attempt to justify is unjustified (or illegal) violence. Sometimes, justifications seem so misleading that it is strange they can be effective (for example, the Spanish dictator Francisco Franco said: "The National Movement has never been a rebellion. The rebels were, and are, them: the Reds"³¹⁸). One reason, however, for their success, is the misinformation of the audience. Another reason is that *violence is often addressed to certain individuals and justification to others*, and the latter may have good reasons for wanting to believe it. I will refer to this in greater detail in Chapter 10.

In many other cases, the deceptions are subtler, but can still produce major effects if many of them are combined to alter beliefs in the same direction. As

³¹³ M. Murado (2013), M. A. Murado (2013).

³¹⁴ As quoted by Oppenheimer (2013).

³¹⁵ Alandete (2013b).

³¹⁶ Alandete (2013a).

³¹⁷ According to the analysis of Haushofer *et al.* (2010), both sides increase their level of aggression in response to attacks from the other side. However, according to these authors, previous analysis had produced the result that only the violence of the Israeli side was a response, while the other was random (thus presumably less justifiable). The authors of the analysis can, to some extent, choose among different methods of statistical analysis and admission criteria of the data subject to analysis, having this way some ability to influence the results. This ability is, at least, susceptible to self-deception.

³¹⁸ As quoted by Preston (2011, p. 617).

with other decisions, in most cases people do not choose their response to a justification after a rational analysis. They “decide” it unconsciously by the same methods they use to take other decisions; methods, as stated in Chapter 1, that are often related to emotions and mental associations, and subject to various well-known cognitive biases such as the framing effect.³¹⁹ Here are some examples.

In two experiments, Jewish subjects who were reminded of the Holocaust felt less collective guilt for the harm caused to the Palestinians during the Israeli-Palestinian conflict than the Jewish subjects who were not, and also rated the actions of the Israeli government as being more justifiable. The same was observed in two other similar studies, although in this case the subjects, who were American, found the actions of their government in Iraq more justified if they had been reminded the attacks on the World Trade Center or Pearl Harbor.³²⁰

In another experiment, subjects were asked whether it was justified to sacrifice an innocent person in order to save five innocent people. Half of them were presented with the dilemma of saving one person or saving five, and the other half in the equivalent terms of letting five die or letting one die. A framing effect was observed: on average, the sacrifice of an innocent person was considered to be more justified in the first group than in the second.³²¹

Finally, in another experiment, subjects who had just seen a 5-minute fragment of a comedy show judged a certain behavior to be more morally acceptable than those who saw a 5-minute documentary about a Spanish village.³²²

These effects, among others, can be used to increase the success of one’s own justifications or decrease those of others, by reminding people of certain events or not, by using certain words, or by inducing a certain state of mind that is to one’s advantage. Note, however, that the studies mentioned above prove that justification can succeed in influencing or manipulating the behavior of listeners in a potentially misleading way, without containing anything that is *literally* false. No judge could accuse a person of cheating for reminding you of the attack

³¹⁹ The framing effect is a common cognitive bias that often makes people give different answers to the same questions, when they are expressed in different ways that evoke different mental associations (Kahneman and Tversky, 2007).

³²⁰ Wohl and Branscombe (2008).

³²¹ Petrinovich and O’Neill (1996).

³²² Valdesolo and DeSteno (2006).

on Pearl Harbor, asking if you'd rather save one innocent person or five or inviting you to see a comedy.

One fact on which many deceptive justifications are based is the frequently excessive influence that mental associations have on human decisions. Some words have positive or negative connotations, i.e., they are mentally associated with good or bad, respectively, and these connotations may be consciously or unconsciously used to influence listeners' decisions as to whether they accept or reject justifications.

For example, the terms "intolerance" and "zero tolerance" have the same denotation, or literal meaning, although the first has a negative connotation and the second a positive one (so much so that it would not be strange to hear that "we must have a zero tolerance standard with intolerant people"). Suppose that A observes B performing behavior X and C reacts aggressing B. If A is sympathetic to C, or to the aggression, A can say that "it is necessary to have a zero tolerance standard" with behavior X. If, however, A sympathizes with B or X, A is more likely to say that C is an intolerant. This difference may unconsciously influence how others assess what happened. The use of either word may have been calculated, but can also be unconsciously determined. If C is good and zero tolerance is good, our unconscious automatically considers that what C did is zero tolerance; if C and intolerance are bad, it automatically establishes that C is intolerant.

Some words, such as "(in) justice", "rights", "freedom", "terrorism", "violence" and "harm", have strong positive or negative connotations, and this makes them well suited to influence the acceptance of justifications.³²³ I will now go on to consider certain aspects associated with terrorism.

³²³ Other examples of words with strong connotations are "Hitler" and "Vietnam". According to Spellman and Holyoak (1992), in the United States "the prelude to the [Gulf] war engendered widespread use of analogy as a tool of argument and persuasion." It seems that supporters of the analogy "Saddam Hussein is an emerging Hitler" (that must be stopped before it is too late) confronted the supporters of the analogy "The Persian Gulf is a trap like Vietnam."

Another example is the word "revenge." According to some studies, American advocates of the death penalty are much more willing to say that one of their motivations is their agreement with the words "a life for a life" than to say that one of their motivations is revenge, probably because of the highly negative connotations of this word (Ellsworth and Gross, 1994).

According to Russell (2009, p. 26): "Both 'adultery' and 'fornication' are words conveying such immensely strong moral reprobation that so long as they are employed it

Especially since 2001, a great deal of violence has been justified as being necessary for the “fight against terrorism.” According to Pinker, the probability of dying from a terrorist attack is miniscule compared to other causes of death. This researcher says, for example, that “in every year but 1995 and 2001, more Americans were killed by lightning, deer, peanut allergies, bee stings, and ‘ignition or melting of nightwear’ than by terrorist attacks.”³²⁴

Also according to Pinker, the “cognitive psychologist Gerd Gigerenzer has estimated that in the year after the 9/11 attacks, 1,500 Americans died in car accidents because they chose to drive rather than fly to their destinations out of fear of dying in a hijacked or sabotaged plane, unaware that the risk of death in a plane flight from Boston to Los Angeles is the same as the risk of death in car trip of twelve miles. In other words the number of people who died by avoiding air travel was six times the number of people who died in the airplanes on September 11.”³²⁵

It is highly likely that very few people are aware of this data, and, if so, the reason must be that governments have not been keen to publicize them. Although fear has a very important function—hazard avoidance—certain fears are more or less irrational, such as the fear of spiders or the fear of flying, if it leads to travelling by car, which is more dangerous. In some countries, the fear of terrorism may be a similar case, and may be used by governments such as the US in order to achieve the acceptance of aggressions (and of reduced rights) that may otherwise not be accepted. As J.L. Sampedro wrote in 2003:

“Sending bombers against terrorism is as great a folly as wanting to kill mosquitoes with a machine gun: it is something so obvious that it requires no evidence. That is enough to prove that the fight against terrorism—although it is real and fighting it is a need—may not be the real target of the measures that the

is difficult to think clearly. There are, however, other words used by those lascivious writers who wish to corrupt our morals: such writers will speak of ‘gallantry’, or ‘love unfettered by the cold bonds of law’. Both sets of terms are designed to arouse prejudices: if we wish to think dispassionately, we must eschew the one set as much as the other. Unfortunately this must inevitably ruin our literary style. Both words of praise and words of blame are colourful and interesting. The reader can be carried along by an invective or panegyric, and with a little skill his emotions can be aroused by the author in any desired direction. (...). What we do ourselves is ‘gallantry’; what others do is ‘fornication’.”

³²⁴ Pinker (2012, p. 345).

³²⁵ Pinker (2012, p. 345).

U.S. Government has since taken and, moreover, were planned or outlined earlier. If an act of terrorism, however violent, is raised to the level of a permanent, universal plague, other purposes must be held in mind. Thus, terrorism proves to be the enemy the warmongers lacked since the collapse of the USSR, terrorism justifies the arms race and military interventions wherever convenient, terrorism creates a devoted public opinion because of the general fear it inspires, especially for its mysterious invisibility, threatening from the shadows to anyone and anywhere. With terrorism, Rumsfeld and his colleagues have what they needed: the triggering fact that ‘force them to act’, along with a favorable public opinion.”³²⁶

As words with strong connotations, such as “terrorism”, are highly effective (to influence listeners) they are widely used, as a result of which their meanings become extended. This leads to these words becoming less precise, and this encourages deception, as it is more difficult to prove that someone is lying. If the president of a nation, for example, states that his/her priority is the fight against terrorism, he may be lying according to one definition of *terrorism*, but speaking the truth based on another.³²⁷

³²⁶ Sampedro (2013, pp. 76-77). According to Richardot (2014, p. 84): “Political and military leaders try to play on collective fears, to invite subordinates (and the entire population in general) to defend themselves and to engage in a battle often formulated in terms of ‘the war against [X]’. They thus favor the development of a warlike ideology and a culture of hate and violence.”

³²⁷ According to F. Ferracuti (as quoted by Ruggiero, 2009, p. 131): “Cynically, but perhaps realistically, terrorism could be defined as ‘what the other person does’. What we do, or what the state does is “anti or counter-terrorism” but, obviously, the positions can be reversed if you change sides, or just through the course of history.”

The CIA supported terrorist groups and activities against the Allende Government in Chile (Kornbluh, 2013, pp. 43, 49, 80, 83 and 102). The subsequent government under Pinochet was responsible for several attacks outside the borders of Chile, including a bombing in Washington in 1976 in which a Chilean politician and an American woman died. As a result, three years later the Carter administration implemented a number of moderate sanctions against the Chilean Government. These sanctions lasted about a year. Shortly after coming to power in January 1981, Reagan’s first political gesture towards Latin America was to revoke the sanctions. On the eve of his election Reagan had said, “It is time that the civilized nations of the world make it clear that there is no place in it for terrorism” (Kornbluh, 2013, p. 268).

Another of these words, widely used in justifications, is “harm.” If it is justified for people to protect themselves against harm, then they will usually try to make others believe the actions against which they respond with violence are harmful, and therefore that this violence is self-defense or deserved punishment.

This interest in using the word “harm” in justifications leads to confusing harm against individuals with harm against the interests of individuals, as discussed in Chapter 3 and footnote 91 (something which is probably a major cause of the mistaken belief that immoral behaviors are always harmful, something I will refute in Chapter 11). Actually, many actions that do not cause any physical damage or any other real material harm, but which can be *interpreted*³²⁸ as sign of future harm, are often referred to as “violence”: this is the case of “psychological” violence, defined as behavior that causes “psychological pain.” Extreme examples of this would be that at least two teams of scientists classify putting an end to a friendship as an act of aggression³²⁹ (although ending a friendship is an important way of freeing ourselves from harmful relationships with selfish and deceitful friends³³⁰) and another considers not acting altruistically as a form of aggression.³³¹ Since psychological pain depends on the interpretation, and freedom of interpretation cannot be limited, if aggression is described as any action that causes psychological pain, then *any physical* aggression can be described as self-defense³³² without the possibility of this description being rebutted. (Evidence that this possibility is not wasted is the

³²⁸ Physical pain results in part of the interpretation one makes of the circumstances. Psychological pain entirely depends on the interpretation. In both cases, the interpretation is not necessarily conscious.

³²⁹ “Relationally aggressive behaviors are those in which the perpetrator attempts to harm the victim through the manipulation of relationships, threat of damage to them, or both. Thus, for example, a relational victim may have friends who threaten to withdraw their affection unless he or she does what they want” (Crick *et al.*, 2002, p. 98). “Indirect aggression includes rumor spreading, gossiping, ostracism, and punitive friendship termination” (Griskevicius *et al.*, 2009, p. 982, footnote 2).

³³⁰ Baumard (2010).

³³¹ De Dreu *et al.* (2010, experiment 3, pp. 1408 and 1411).

³³² For example: “Today’s activists seek more traditional justifications for the use of violence. Dr. Rantisi and Sheikh Yassin, for example, based the justification for the use of violence on Islamic approval of self-defense. Both Yassin and Rantisi broadened the idea to include the defense of dignity and pride.” (Juergensmeyer, 2001, p. 92). According to Fattah and Fierke (2009, p. 86), “both militant Islamists and the Bush administration draw on the concept [of human dignity] to justify violent action.”

success of a word that expresses that it is not the aggressor but the aggressed who is to be blamed: “Provocation.”)

Other relatively common justifications are “I need it to live on,” “we have to do it to defend our vital interests,” and “I am forced to do it to get bread for my children.” For example, slavery was justified in regions and at times where it was alleged that the productivity of the land was insufficient to live off if slaves were not available.³³³ Expansionist plans, such as those of the German and Japanese governments in the Second World War and in the preceding years were also justified this way.³³⁴ This type of justification is also misleading, for two reasons. The first is that the statement “I need it to live on” seems to mean “I need it to survive,” while what it is actually needed for is usually somewhere between survival and enrichment. The second is that even if the statement is true, it draws listeners’ attention away from what some of them may consider to be interesting: the fact that it is assumed that our own interests have precedence over the interests of others. (Similarly, if an employee of a weapons factory who does not know what they will be used for says they need the job to feed their children, this diverts attention from the implicit premise that the welfare of their children has precedence over that of the people who will potentially be affected by the use of these weapons).

³³³ Thomas (1998). This was also the justification, for example, for more recent abuse (in 1903) to Congo natives perpetrated by a private concessionary company, consisting of taking women hostage until their husbands paid alleged debts: “Mr. Lejeune deplored this terrible imposition, but said that the vital needs of their own station, besides those of the local English missionaries... forced him to do this if people did not pay their contributions” (Casement, 2010, pp.107-108).

³³⁴ Fumimaro Konoe, who was prime minister of Japan, wrote in an essay in 1933 (as quoted by Rees [2009, p. 66]): “The increase in the population of our country by one million people per year is a very heavy burden on our economic life. We cannot wait for a rational adjustment of the global system. Therefore, we have chosen to enter Manchuria and Mongolia as the only option for survival.”

9 Usefulness of wrong beliefs, self-deception and coherence

It is difficult to make a man understand something when his salary depends on his not understanding it.

Upton Sinclair

Apparently, the more human beings get to know the world they live in, the better they will be able to solve problems and take advantage of the opportunities that come their way. However, we can say with certainty that this is not necessarily true, as there are at least two known beneficial effects of false beliefs: the decrease in the average cost of errors³³⁵, which is related to the asymmetry of error costs, and the increase in deception ability, in turn related to common self-deception.

A smoke detector can make two types of errors: type I errors consist in believing that there is fire and going off when there is actually none, and type II errors consist in not going off when indeed there is a fire. Since type II errors are far more costly than type I errors, and the complete absence of errors is impossible, smoke detectors are designed to avoid type II errors, even though this might make them prone to a great number of type I errors.

We living beings often find ourselves in error cost asymmetry (ECA) situations, i.e., situations in which a type of error is more serious than the other. When the difference is large enough and sustained over generations, it is probable that our imperfect designer, evolution by natural selection, has made us this way so that we often commit small errors and rarely serious ones. Of course, it would not be this way if we were made in a way that would enable us to always make the appropriate decision. But that is not our case: in fact, we make decisions based on various evidence that can be better or worse indicators of reality but never perfect.

ECA can occur in two general types of situations: dangers and opportunities. The former are those comparable to a fire that a detector may or may not detect. In the second type, the serious cost is an opportunity cost, i.e., it

³³⁵ This benefit is known at least since the 1990's: Nesse (1990: "the principle of defensive overresponsiveness"), Zebrowitz and Collins (1997, p. 212) and Nesse and Williams (1999: "the smoke detector principle").

is the loss of a good opportunity for not having noticed it, while the minor cost is acting in belief that there is an opportunity when there is none.

Reactions to health hazards such as nausea, and to threats to personal safety such as fear or anxiety, are examples of defensive reactions that are often excessive. For example, the feeling of nausea that prevents the ingestion of certain food or causes already ingested food to be vomited back up is a reaction to indications that certain food may be toxic or transmit infections. Often inoffensive food can cause nausea, but not having this feeling when faced with truly dangerous food would be a far more costly error. Nausea is especially common among pregnant women as the danger they face is greater due to potential fetus damage.³³⁶ (The fact that many defensive reactions are unnecessarily intense may explain why doctors are often able to relieve unpleasant symptoms such as nausea, fever, pain, diarrhea and anxiety without causing significant harm.³³⁷)

Other studies have found that people tend to underestimate the time it takes for an approaching object³³⁸ to reach them. It is assumed that underestimation helps them be better prepared for the arrival of the object, in case it represents a real threat. According to another study, people, especially those most fearful of heights, tend to overestimate heights from where they might fall.³³⁹

Results of another study support that women tend to underestimate the commitment of men who court them: mistakenly believing in their commitment is a much more costly error than mistakenly believing in their lack of commitment.³⁴⁰

The psychology derived from ECA may also explain, among other things, the increase in the tendency to classify a person as out-group member in case of danger, the tendency to believe that people from other ethnic or racial groups are more hostile and violent than they actually are, the tendency to avoid sick people

³³⁶ Nesse and Williams (1999).

³³⁷ Nesse (2005).

³³⁸ This occurs whether the object is seen (Vagnoni *et al.*, 2012) as if it is not seen but heard (Neuhoff, 2001). According to the first of these two studies, underestimation is greater for objects that are more associated to hazards (greater for a snake or spider drawing than a butterfly or rabbit one).

³³⁹ Teachman *et al.* (2008).

³⁴⁰ Haselton and Buss (2000).

or those with anomalies (which could be a sign of a contagious disease), arachnophobia, food aversions and excessive or unhealthy (sexual) jealousy.³⁴¹

Opportunity-related ECA has been used to explain why individuals in certain experimental situations are more altruistic or generous than it seems to suit them. The explanation may simply be that individuals respond (irrationally) to signs that in our evolutionary past were probably signs of initial exchange of favors which satisfied both parties, an exchange that implies an opportunity of greater value than the cost of an unreciprocated generosity.³⁴²

Other studies support that men tend to infer, when interpreting women's gestures like their smiles, that they are more sexually attracted to them than they really are: interpreting a woman's interest when it is absent has a relatively low cost compared to the high opportunity cost of believing that there is no interest when indeed there is one.³⁴³

Now, ECA situations maintained over generations could have led to a bias in living beings' responses without simultaneously interfering with their beliefs. The underestimation of men's commitment level, for example, might be useless. A woman could reasonably estimate the commitment of her suitors (i.e., women could reasonably estimate, on average, the commitment level) and then, think: "Anyways, even if I think his commitment level is x and not less, I should act as if his commitment level is lower; that way even if I get it wrong, my potential error cost will be smaller." This approach would disqualify the underestimation.

However, humans do not seem to be made in such a way, perhaps because thinking makes decisions slower to process and costly. Beliefs are often linked to behavioral tendencies, and although ECA could theoretically cause only behavioral biases, several studies I have mentioned find biases in beliefs about the world.³⁴⁴

³⁴¹ Haselton and Nettle (2006), Ryan *et al.* (2012).

³⁴² Delton *et al.* (2011). The results of the experiments of Burton-Chellew and West (2013) support that much of the observed altruism in certain types of experiments is the result of misunderstandings of the task which individuals have to perform.

³⁴³ Haselton and Buss (2000), Perilloux *et al.* (2012).

³⁴⁴ Other studies consistent with this are those of Fessler *et al.* (2012), whereby people who carry a gun are attributed somewhat greater size and strength, and those of Fessler and Holbrook (2013), whereby if we are in the company of friends, enemies seem physically weaker and smaller.

An article that seeks to explain the frequent overestimation of one's personal fighting ability using ECA³⁴⁵ was published in 2011. As explained in chapter 6, when fighting, we should assess our personal fighting abilities as well as the opponent's. *If fighting and losing costs were usually small enough in relation to the resource value* (which is lost if one commits the contrary mistake of not fighting when in the case of doing it, the opponent would have been defeated), i.e., if a fight were an opportunity rather than a danger, the most convenient thing to do would be to overestimate our personal fighting abilities.

However, fights are quite often dangers rather than opportunities. Indeed, it may be that even the risks of fighting and *winning* are very big in relation to the resource value in play: a small injury resulting from the fight can become infected and cause the death of the winner (or one of the winners in case of a group fight).

In addition, there is another good explanation—consistent with the above-mentioned—of the overestimation of our personal fighting abilities and other positive illusions in general. Indeed, an article published in *Nature*³⁴⁶ in which the previous article is commented (published in the same issue of the journal) is illustrated with a photograph which caption, probably by mistake, favors this alternative explanation. Former boxing world champion Muhammad Ali appears in the picture and the caption said that his supreme confidence helped him win many fights. However, the increased confidence as a result of ECA does not help win fights, *but lose more fights*: it leads to fight more often if, in the past, the condition was met that the increase in the number of losses was more than counterbalanced by lesser committing of the supposedly more costly mistake of not taking the opportunity to fight for a resource when it would have been better to do it.

The alternative explanation to which I refer is that the overestimation of our fighting ability and its resulting increase in confidence are useful because they help deceive the opponent with regards to our fighting ability. More precisely, they help deceive the opponent and any present spectator (the boxer A. Evangelista, who fought M. Ali in 1977 in the United States, said that Ali told him that he was going to destroy him³⁴⁷, but Ali won on points, i.e., it was a jury who decided that Ali had boxed better).

³⁴⁵ Johnson and Fowler (2011).

³⁴⁶ Van Veelen and Nowak (2011).

³⁴⁷ In an interview published in *As* journal on 31/12/2012, pp. 16-17.

According to psychologist P. Ekman, one of the most cited experts in the research fields of emotions' facial expression and lies' detection, lies are rather difficult to detect on the spot, and in addition: "the case of a liar who manages to deceive himself and who later believes his lie to be true is even worse. These liars are undetectable. *It is only possible to catch liars who, when they lie, know they are doing it.*"³⁴⁸ This results from the fact that if one knows one is lying or cheating, one involuntarily risks sending signs that could reveal the deception: signs which indicate cheating (as sometimes smiles are) or signs of a different belief from the one that is expressed (such as signs of fear when denying it).³⁴⁹

This has an important consequence: maintaining a false belief can be useful to better convince other individuals about it; i.e., having false beliefs can facilitate deception. This is, then, a second potential benefit of having false beliefs.

Several researchers believe that self-deception is an adaptive design feature because it helps to better deceive others.³⁵⁰ Other benefits of self-deception related to the above were also cited; it is the case of freeing "working memory" from the burden of being aware of a deception in order not to betray it, and of lessening the punishment if such deception is discovered, due to the fact that the deceived often take into account intentionality when determining the deserved punishment.³⁵¹

³⁴⁸ Ekman (2005, pp. 145-146).

³⁴⁹ Psychopaths display appropriate features to successfully deceive, which is very useful in a social strategy of manipulation and parasitism of others, which, according to some authors, seems the most characteristic of that class of individuals (Stevens and Price, 2006; Glenn *et al.*, 2011): "the ability to deceive and exploit others may also be enhanced by the reduced emotional responsiveness and lack of feelings of guilt and remorse in psychopathic individuals." (Glenn *et al.*, 2011, p. 378) These emotional characteristics are manifested in conscious ideas: according to Stevens and Price (2006, p. 86): "When confronted with evidence of the hurt or damage they have inflicted on those whom they may have raped, robbed, or battered, they display a complete lack of remorse and tend to rationalize and justify what they have done."

³⁵⁰ Trivers (1979, 1985, 2000), Beahrs (1991), Sommer (1995), Alexander (2007), Krebs and Denton (2009), Kurzban (2010), Von Hippel and Trivers (2011), Ariely (2012, p. 130).

³⁵¹ According to Miller (2001, p. 536), "there may be no more well-established finding in the aggression literature than the finding that unintentional acts of harm provoke less anger and less retaliation than do intentional acts of harm."

To summarize two self-deception definitions by philosophers³⁵², the subject who deceives himself makes a distorted or biased assessment of the available information, and this distortion or bias is motivated, i.e., it is the result of a certain desire.³⁵³

These definitions refer to what we might define as “self-deception in the broad sense,” which is the undisputed kind of self-deception. There is another disputed kind, “self-deception in the strict sense,” which is the case where subjects acquire an erroneous conscious belief, but keep, unconsciously, the (most) true or realistic belief (which could perhaps be usable in other circumstances). However, this form of self-deception is not surprising to those who accept that the brain is modular to a certain extent, meaning that it is functionally divided into *relatively* independent units. In fact, besides other more or less reliable evidence that this kind of self-deception exists, there is quite strong evidence that it really does.³⁵⁴ Nevertheless, what interests me the most are self-deceptions in the broad sense, and I will only refer to these from now on.

³⁵² Mele (1997, p. 95) and Van Leeuwen (2007, p. 332). As defined by Mele, self-deception is the situation in which the following four conditions take place: (1) The belief that *p* which S [the subject] acquires is false. (2) S treats data relevant, or at least seemingly relevant, to the truth value of *p* in a motivationally biased way. (3) This biased treatment is a nondeviant cause of S’s acquiring the belief that *p*. (4). The body of data possessed by S at the time provides greater warrant for non-*p* than for *p*.

According to the definition by Van Leeuwen, “an agent is in a state of self-deception if and only if she holds a belief (a) that is contrary to what her epistemic norms in conjunction with available evidence would usually dictate and (b) a desire for a certain state of affairs to obtain, or to have a certain belief, causally makes the difference in what belief is held in an epistemically illegitimate fashion.”

³⁵³ There are various mechanisms which lead to self-deception, i.e., its immediate causes are diverse. Here are a few examples: biased information search, biased attention (to what is most of interest), biased memories formation and reconstruction, motivated reasoning (reasoning—in the sense of deliberation or argumentation—biased by the desire to reach a certain conclusion) and even biased visual perception (Lord *et al.*, 1979; Kunda, 1987 and 1990; Sanitioso *et al.*, 1990; Klein and Kunda, 1993; Fyock and Stangor, 1994; Greenwald, 1997; Mele, 1997; Story, 1998; Steffens and Mecklenbräuer, 2007; Dunning and Balci, 2013).

³⁵⁴ Ramachandran (1996), among others, presents the evidence. Some people, after an accident that damages their brain, suffer body paralysis attached to the more or less stubborn denial of their paralysis. Thanks to a simple intervention, we can sometimes help patients recognize their paralysis. Ramachandran did so with a patient who recognized her paralysis for a few hours, and then returned to her usual state of denial. It

Quite often, it would be to the subject's best interest that the wrong belief³⁵⁵ resulting from self-deception was true. A typical example of this kind of self-deception, which I will qualify as "normal," is that of an individual who seemingly does not see the fact of his partner being unfaithful. "Reversed" self-deceptions, where it would be to the subject's best interest that beliefs deriving from self-deception were untrue, are much less frequent.³⁵⁶ An example of these, which are opposed to the previous, is that of an extremely jealous individual who have an exaggerated tendency to interpret signs which most people view as neutral as infidelity signs of his or her partner.

Reversed self-deceptions can usually be explained as a result of ECA in dangerous situations: one prefers not to be in the feared situation, as being cheated on by a partner, but it can be much less costly to feel unfounded jealousy than trusting and end up deceived. That said, how can we explain normal self-deception that produces the opposite effect? The explanation is that being gullible also has its advantages: it prevents the loss of self-image or self-esteem, which in turn avoids losing social value. For example, it is much more difficult for a depressed man who just discovered that his partner is cheating him to prevent people who belong to his social environment from knowing he "is a cuckold," a fact that decreases his social value. Thus, self-deception of those who are extremely gullible is an example of "self-deception to deceive better."³⁵⁷

might be objected that this is an exceptional case and therefore useless for understanding normal brain function, but the latter is probably not true: brain damages do not normally create new brain functions, but rather destroy pre-existing ones. The emergence of new behaviors is due to the fact that this destruction eliminates something that was inhibiting or suppressing a pre-existing function. Therefore, patients with brain damage reveal information about normal brain function. Other data supporting the existence of self-deceptions in the strict sense can be found in Cortizo Amaro (2009, section 5.3.4).

³⁵⁵ Actually, a belief resulting from self-deception is not necessarily (more) wrong. It may be that the belief, which seemed (more) wrong from an impartial observer's point of view, turns out to be (more) correct.

³⁵⁶ Mele (1997) considers them atypical. Lopez and Fuxjager (2012) say that out of 45 examples of self-deception collected from 10 articles and books on self-deception, 38 were normal and 5 were reversed (it was not clear to which class belonged the remaining two).

³⁵⁷ The biases derived from ECA in opportunity situations can lead to the same beliefs as normal self-deceptions to deceive better, as illustrated by the overvaluation of one's personal fighting ability, which could be explained as a result of ECA if fights were

Therefore, being gullible has both negative and positive effects; depending on how these effects matter in each individual case, what is most convenient can go from being extremely gullible to being insanely jealous, passing through the middle point of being realistic.

The mere action of deceiving (or even contemplating it despite not taking action), increases the chances of one to believe it.³⁵⁸ This is very useful if one wants to be more convincing in all kinds of lies and fraud. However, what interests me the most are not deceptions and self-deceptions in general, but rather those that have a significant effect on violence as they systematically occur in a single direction. This is the case of the so-called “positive illusions.”

Positive illusions are three well-documented trends: inflated assessment of one’s own skills and qualities, overconfidence in one’s own control and mastery (or illusion of control), and unrealistic optimism about the future, which includes the underestimation of risks. These three biases are closely interrelated. For example, overestimating personal skills and qualities leads to an excessive confidence in one’s ability to control events, and more specifically overestimating one’s fighting ability leads to underestimate risks associated with the fights.

Of the three positive illusions mentioned, the first is the one that has been most researched. There are numerous studies documenting various cognitive biases that produce an overestimation of our personal skills and qualities.³⁵⁹ Such

opportunities instead of dangers. However, in many cases, as in refusing to believe that one’s partner is being unfaithful, ECA’s explanation does not make sense.

³⁵⁸ To make this statement, I rely on two types of studies. In one of them, as I mentioned in chapter 5, it is observed that people tend to near the ideas they express to the ones their audience is believed to possess, and that the ideas which are truly possessed tend to change in the same direction (Lerner and Tetlock, 1999; Echterhoff *et al.*, 2009). That change can occur even when one thinks one will talk to an audience but this does not take place (Higgins *et al.*, 2007). In a different experiment (Chance *et al.*, 2011; this experiment is also explained by Ariely, 2012, chapter 6) some of the subjects could be cheating (looking up the correct answers) to improve their test score, and part of these subjects seized the opportunity and obtained undeserved high scores. Then, the experimenter gave the subjects money and the possibility to bet on their score on a new test, similar to the previous one, although this time without accessing the answers. Those who had previously cheated overestimated their score, on average, in the new test (and therefore earned less money); as if some of them had believed that their previous high scores were deserved and were not a result of their cheating.

³⁵⁹ Leary (2007) and Cortizo Amaro (2009) comment several of these studies.

was the case that in this research field, the term “better-than-average effect” has been generalized, a term that refers to the phenomenon in which individuals believe that their positive qualities and capabilities are above average, while negative capabilities are below average (positive and negative capabilities are not necessarily the same in different people and societies³⁶⁰). Obviously, some of these people must be wrong: on average, we cannot be above average. When several groups of individuals, mostly college students, were explained various cognitive biases (most of them self-flattering, and therefore, possible causal factors of the “above average” effect) and were asked to rate their own susceptibility towards such biases as well as the average susceptibility in their in-groups, these individuals considered they were, on average, less susceptible than the average.³⁶¹ If the results are applicable to people in general, people tend to believe that they are more objective than the average.

There is a positive illusion related to a situation that is very likely to have been very important in the evolutionary past of many species, including humans. This situation is struggle, and the illusion is the overestimation of one’s own fighting ability. It is commonplace that “having high morale” (trusting in victory) in battles and sport competitions helps us to achieve victory. Is this topic true? There is good evidence that, indeed, in the case of sports competitions³⁶² and in military conflicts, the overestimation of our own fighting ability can help to achieve victory. In the case of armed conflicts, such evidence supports that overestimation produces this type of effect by deceiving the opponent.³⁶³

However, unlike what usually happens among animals, and as explained in chapter 6, the set of qualities and possessions that can influence the result of a fight between humans is very high. For this and other reasons, we humans have no interest in deceiving only about our strength, size or aggressiveness; but about all that set of qualities and possessions socially valuable. This is possibly the

³⁶⁰ Sedikides *et al.* (2005).

³⁶¹ Pronin *et al.* (2002).

³⁶² Starek and Keating (1991).

³⁶³ Johnson *et al.* (2002). If anger is, as I said above, an emotion that prepares us for a fight, and if a common fight tactic is the deception of the opponent using positive illusions, we can expect a correlation between anger and positive illusions. Some studies support that such a correlation exists. In some of them it has been found that anger reduces risk estimation (Fischhoff *et al.*, 2005; Lerner and Tiedens, 2006). Moreover, according to Shaver *et al.* (1987, p. 1078), one of the common characteristics of angry people is that they are convinced that they are right “and the rest of the world is wrong.”

main source of the broad and undefined set of overestimations called “positive illusions.”³⁶⁴

Several studies about these other diverse qualities strongly support that qualities’ overestimation can lead them to be better valued by third parties. One of these studies was experimental: subjects who were given false information that they were doing very well in a certain task overestimated their ability to complete the said task, which also led them to be better considered by others, which in turn led them to be granted a higher status.³⁶⁵ Other studies carried out by the same authors found that the importance of overconfidence (self-overvaluation, for example defined as the difference between the self-assessment and objective assessment of personal qualities) for being valued by others was similar to the importance of the real level of qualities that subjects possessed.³⁶⁶

Unrealistic optimism can be seen as a result of the overestimation of one’s personal qualities, but also as something valuable in itself: optimism is confidence in upcoming success, and foreseeable upcoming success attracts partners and friends:

“Of course, the data on depressive realism do suggest that the average person is more optimistic than is justified, at least about his or her own abilities One can readily imagine how social factors could shape such a tendency. People prefer to associate with others who are happy and successful, so an advantage might well accrue to those with a tendency towards optimistic distortion. Whether natural selection, life experience, or both would shape such a proposed distortion is unanswered.”³⁶⁷

According to Kahneman, confidence in future success by optimistic entrepreneurs “sustains a positive mood that helps them obtain resources from others;”³⁶⁸ and “optimism is highly valued, socially and in the market; people and firms reward the providers of dangerously misleading information more than they reward truth tellers. One of the lessons of the financial crisis that lead to the Great Recession is that there are periods in which competition, among experts

³⁶⁴ Another source, relatively independent of violent struggles, is the desire to feign good qualities in order to be chosen as a partner or associate.

³⁶⁵ Anderson *et al.* (2012).

³⁶⁶ Anderson *et al.* (2012).

³⁶⁷ Nesse (2004, p. 1344).

³⁶⁸ Kahneman (2012, p. 256).

and among organizations, creates powerful forces that favor a collective blindness to risk and uncertainty.”³⁶⁹

Clearly, positive illusions have their drawbacks, which *normally* prevent beliefs from being *excessively* far from reality. One of them is the risk of being taken for a liar or ignorant. Kahneman refers to another one: the risks of dangerous misleading information can sometimes come true. Other cases where overconfidence has been blamed are the First World War, the Vietnam War, the Iraq War, the 2008 financial crisis, the lack of alertness for Hurricane Katrina and climate change in general, as well as the *Challenger* space shuttle disaster.³⁷⁰

A common disadvantage for self-deceptions is the health risk. People tend to deceive themselves to believe that they are in better health than they actually are.³⁷¹ This makes them take less health precautions in exchange for the benefit of a greater ability to appear healthy, thus looking more attractive (as people prefer partners who are not likely to die or get sick at any time). One of the ways to get to believe things such as good personal health is to avoid threatening information (according to several studies, for example, a significant percentage of people who take an HIV test do not return to the place where the analysis was performed to retrieve the results³⁷²) or to discredit it if we cannot avoid it. If we act this way because the information threatens our self and social images it is possible to predict that when providing subjects with an alternative means of affirming their worth, their tendency to reject threatening information decreases. Several studies have found such results.³⁷³

Threatening information can be passively avoided by not getting to see the results of the HIV test or not reading certain newspapers, for example. It can be also actively avoided, although subtly. The *Challenger* space shuttle disaster illustrates a very common way how to avoid threatening information: discouraging lower rank officials (or, generally, all those who could suffer negative consequences if they communicate unpleasant information) who could diffuse it. The shuttle exploded killing all seven crew members after the NASA

³⁶⁹ Kahneman (2012, p. 262).

³⁷⁰ Trivers (2000) considers the *Challenger* disaster a product of self-deception. Other possible cases of self-deception are mentioned by Johnson Fowler (2011).

³⁷¹ Quattrone and Tversky (1984), Kunda (1987), Ditto and Lopez (1992), Klein and Kunda (1993).

³⁷² In one of the studies mentioned by Howell and Shepperd (2012, p. 144) the percentage was 55%. In other studies, lower percentages were obtained.

³⁷³ Cohen *et al.* (2000), Sherman and Cohen (2002), Van Koningsbruggen *et al.* (2009), Howell and Shepperd (2012).

flight director disregarded warnings that the cold temperatures which were forecasted for the take-off day could cause some rubber seals to malfunction. It is probable that this neglect was motivated by the idea of avoiding to postpone the take-off for the fourth time, something which could affect the credibility of NASA's projects. The director did not report this information to his superiors.³⁷⁴ R. Feynman, Nobel laureate in Physics who was part of an investigative commission, wrote about it:

“Those who seek approval from Congress for their projects don't want to hear about these things [issues, risks, etc.]. It is better for them not to know them because this way they can be more 'honest': They don't want to be in the position of having to lie to Congress! Indeed, attitudes soon enough begin to change: the unpleasant information that comes from the lower spheres—‘We have a problem with the seals; we should fix it before scheduling a new take-off again’—is suppressed by the bigwigs and middle managers who say things like ‘If you tell me about the problems with the seals, we'll have to cancel the take-off and fix them,’ or, ‘No, no, proceed with the take-off, otherwise, I'll look bad,’ or, ‘Don't tell me it; I don't want to know anything about this.’ They may not say ‘Don't tell me it’ explicitly; instead they discourage communication, which in the end comes to be the same thing.”³⁷⁵

This case also exemplifies that most deceptions and self-deceptions are not a matter of class but of degree: they are exaggerations. According to Feynman:

“When the moon project came to an end, NASA... had to convince Congress that there was a project that only NASA could accomplish. To achieve this, exaggeration was necessary—it at least *seemed* necessary in this case: exaggerate on how economical the shuttle would be, exaggerate the frequency with which it could take off, exaggerate how safe it would be, exaggerate the scientific advances that could be driven.”³⁷⁶

³⁷⁴ Ekman (2005, pp. 318-320).

³⁷⁵ As quoted by Ekman (2005, p. 323).

³⁷⁶ As quoted by Ekman (2005, p. 322). (The reason that NASA “had to convince ...” is that otherwise no staff would have a job.)

According to Ekman, the above-mentioned flight director “was just one of the many people from NASA who kept those exaggerations.”³⁷⁷

The hypothesis of self-deception to better deceive may also explain another well-known psychological fact for which, to my knowledge, there is no other good explanation: the fact that I refer to is the need for consistency among the different ideas of each individual, a need which was studied, for example, by researchers in cognitive dissonance. According to many studies, humans experience a psychic and even physical discomfort when incoherent ideas share our mind.³⁷⁸ That discomfort motivates us to make changes to improve consistency, the alteration of the less supported belief through its consistent connection with other ideas being a very common recourse. For example, if we have many beliefs that support how wonderful we are and then find that we have done something that is not really compatible with our idea of a wonderful person, it is likely that somehow we manage to interpret our behavior so that our initial belief remains unaltered. In this and many other cases, self-deception can be seen as a consequence of the need for consistency³⁷⁹, even though we then have to answer for the causes of this need for consistency.

One of several consequences of the desire for consistency is referred to as the “halo effect.” When we meet a new person, we unconsciously make an overall judgment of him or her, and if we later issue a new judgment of a specific aspect of theirs, this specific judgment tends to be in line with the previous overall judgment, also unconsciously. Consequently, we can believe that we like a person because he or she is competent, when in fact we believe he or she is competent in part because we like them, and we like them because of a comprehensive judgment that we are unable to explain.³⁸⁰ As a result, we tend to believe that “good people do only good things and bad people are all bad.”³⁸¹ This also happens when we assess things: “Good technologies have few costs in the imaginary world we inhabit, bad technologies have no benefits, and all decisions are easy.”³⁸²

³⁷⁷ Ekman (2005, p. 322).

³⁷⁸ Elliot and Devine (1994), Adriaanse *et al.* (2014).

³⁷⁹ Sahdra and Thagard (2003).

³⁸⁰ Nisbett and Wilson (1977b), Kahneman (2012, pp. 261-271).

³⁸¹ Kahneman (2012, pp. 199-200).

³⁸² Kahneman (2012, p. 140).

A similar process occurs with the assessment of evidence for or against a certain statement, e.g., for or against the guilt of a certain defendant. Although beliefs influence a verdict, a verdict also influences beliefs: evidence considered to be very reliable, such as DNA testing and a defendant's confessions, influence a verdict (believing in his guilt or innocence), which then influences the validity assessment of other evidence, thus improving those consistent with the verdict and worsening those which are inconsistent.³⁸³ This creates a false appearance of agreement among all evidence that may favor erroneous verdicts.

Another consequence of the desire for consistency, closely related to the previous one, is the ease with which we create simple and convincing explanations, although sometimes they can be incorrect. Here are some comments Kahneman made on these incorrect explanations which are referred to as "narrative fallacies" (by "associative machine," he refers to the mind and its tendency to operate by means of mental associations):

"Narrative fallacies arise inevitably from our continuous attempt to make sense of the world. The explanatory stories that people find compelling are simple; are concrete rather than abstract; assign a larger role to talent, stupidity and intentions than to luck; and focus on a few striking events that happened rather than on the countless vents that failed to happen. Any recent salient event is a candidate to become the kernel of a causal narrative."

... Paradoxically, it is easier to construct a coherent story when you know little, when there are fewer pieces to fit into the puzzle. Our comforting conviction that the world makes sense rests on secure foundation: our almost unlimited ability to ignore our ignorance."

... Earlier I traced people's confidence in a belief to two related impressions: cognitive easy and coherence. We are confident when the story we tell ourselves comes easily to mind, with no contradiction and no competing scenario. But easy and coherence do not guarantee that a belief held with confidence is true. The associative machine is set to suppress doubt and to evoke ideas and information that are compatible with the currently dominant story."³⁸⁴

Kahneman leaves some questions unanswered: why do we have such desire to make sense of the world? Why do we underestimate the role of chance,

³⁸³ Simon *et al.* (2004), Hasel and Kassin (2009), Kassin *et al.* (2012).

³⁸⁴ Kahneman (2012, pp. 199, 201 and 239).

which is the set of unknown causes? Is it useful to ignore our ignorance? Will it help to remove doubts?

The hypothesis of self-deception to better deceive can provide answers: it is advantageous to remove doubts and inconsistencies because they take away credibility from testimonies and stories. We want to have explanations and feel safe about them, because the safer we are, the more convincing we will seem to others, whether our explanations are more or less accurate or even if they are not but are convenient, which is what we care about. For instance, we generally want to be convinced that we are wonderful people as this way we are more likely to get others to believe it, which may be advantageous for several reasons, such as making it more likely to be chosen as partners.

A research team have spent years studying and demonstrating how skilled we humans usually are when inventing on-the-go explanations to protect our consistency. In one of these studies, each individual was shown pairs of pictures of women and were asked which woman was the most attractive in each pair. After each choice, the photos were hidden again. In six of the cases, they were also asked to justify their choice, for which they were shown the supposedly chosen picture again. However, in 3 of these 6 cases, they were trickily shown the picture they did not choose rather than the one they had. The justifications of those individuals who did not notice the swap, which were the majority, were not significantly different from the justifications given for the photos that were actually chosen, neither in the level of emotional engagement in the explanation, the level of detail in the description of the woman, nor the level of confidence in their choice.³⁸⁵

In another study, similar results were obtained after convincing many of the subjects, using another clever trick, that they had made an opposite moral judgment to the one they had actually issued. Again, most changes were not detected, and in most of these cases, individuals justified judgments that were contrary to the ones they made.³⁸⁶

The coherence that allows us to feel sure of what we say has yet another function. As Kahneman says, we do not only prefer a coherent explanation to an inconsistent one, but often to a lack of explanation. Kahneman cites results of several studies in which experts, without knowing it, were presented with the

³⁸⁵ Johansson *et al.* (2005).

³⁸⁶ Hall *et al.* (2012).

same case twice for evaluation, and they ended up making different assessments of the same case roughly one out of five times.³⁸⁷ Although the cases were not easy to assess, why did the experts not say “I don’t know” when in doubt? (The fact that an expert make a statement instead of saying “I don’t know” may have important consequences: in a similar study, the experts, which contradicted themselves in one out of eight cases, were fingerprint experts and had to decide whether or not two fingerprints belonged to the same person³⁸⁸). My answer is: we do not want to say “I don’t know” because we want others to see us as very wise persons, which will make it easier for us to convince them whenever suitable, in addition to increasing our social value.

Deceptions and self-deceptions are limited by reality and credibility, thus they usually are relatively small deviations from realistic beliefs. However, these relatively small deviations can have massive consequences. F. de Waal states that the attacks on New York’s Twin Towers in 2001 enraged him, in addition to making him feel horror and grief, and later the following: “It does not matter that there was no proven link with the September 11: the Baghdad bombing was a great stress relief for the American people who greeted it while waving flags in the streets and cheering in the media.”³⁸⁹ Other authors believe that the Iraq war resulted from the conjunction of two desires: the desire of many Americans to attack someone, which was not enough satisfied with the invasion of Afghanistan, and their government’s desire to invade Iraq for reasons previous to the attack on the Twin Towers.³⁹⁰

Notwithstanding, they both needed or at least wanted a justification. During his State of the Union speech in January 2003, President George W. Bush said: “The British government has learned that Saddam Hussein recently sought significant quantities of uranium from Africa.”³⁹¹ In reality, British intelligence only believed that this had occurred but had no conclusive evidence³⁹², so they

³⁸⁷ Kahneman (2012, pp. 224-225).

³⁸⁸ Dror and Charlton (2006).

³⁸⁹ De Waal (2007, p. 169)

³⁹⁰ Mailer (2003), Barash and Lipton (2011, p. 11). Mailer (2003) cites the oil, water and geo-strategic position of Iraq among those reasons.

³⁹¹ As quoted by Pinker (2007, p. 21).

³⁹² Pinker (2007, p. 22).

could not have *learned*. Bush's subtle lie provided many Americans who were hoping for an attack with a good reason to support a war. They might have thought the following, for example: "We have the right to defend ourselves and even the moral duty of preventing Hussein from causing further innocent victims given the nuclear arsenal he is trying to develop." The government's justification was identical and had the support of the majority of the population. Since people only believe some of the things they hear and tend to believe in what is in their interest, it is likely that many gave credit to Bush because it was simply to their advantage; i.e., that they deceived themselves to go on with the aggression they desired without it affecting the positive opinion they had of themselves. In a sense, Bush did them a favor by providing a good justification for their support to war. (Similarly, one of the favors that leaders of the richest and most democratic countries provide to their citizens is concealing those hardly justifiable matters of their foreign affairs³⁹³, which benefit the economy and the living standards that citizens claim).

The fact that people often have reasons for self-deception leads to another favor that friends and relatives may exchange: cooperation with others' self-deceptions:

"Friends and relatives tend to engage in a subtle form of reciprocity with respect to positive illusions about one another – "You support my illusions, and I will support yours" – which gives rise to benign folie à deux: "You are wonderful." "So are you." In some cases, this initiates a self-fulfilling prophesy.

³⁹³ Richard Helms, former director of the CIA from 1966 to 1973, was convicted in 1977 for lying to a committee of the U.S. Senate in relation to the activities of the CIA in Chile, and was fined two thousand dollars that were like a victory to him: "His CIA colleagues organized a party to celebrate the victory and took up a collection for the amount stipulated by the judge." Helms told reporters: "I have this conviction as a badge of honor" (Kornbluh, 2013, p. 99). In contrast, some soldiers who, without violating any law or even meeting their legal duties, unveiled illegal cases of extreme violence (such as My Lai massacre in Vietnam or tortures in the Iraqi prison of Abu Ghraib) received threats or dismissals or other forms of disapproval of their behavior (Lankford, 2009, p. 393).

If each of us thinks that the other is socially attractive, funny, beautiful, of high worth, then our beliefs are at least partially validated.”³⁹⁴

However, this reciprocity is not often necessary because people preferentially interact with those who share their self-deceptions. This is because we prefer relating with those who are similar to us (as mentioned in chapter 5), and because people who belong to the same group tend to develop common beliefs and self-deceptions, as I shall explain in the next chapter.

³⁹⁴ Krebs and Denton (2009, p. 525).

10 Collective justification of violence

However, it is clear that, by nature, some are free and others slaves. And that slavery suits the latter, and is fair.

Aristotle

So much talent is needed to understand that with the lives of men, with their social relations, with the foundation of their society, their principles, their opinions and even their conscience must also change?

Marx and Engels

Here is a justification of slavery: we are shocked by “the first exhibition of the human flesh for sale; but God certainly provided them for our use and enjoyment; if not, His Divine Will would have appeared in a signal or evidence.”³⁹⁵

After the murder in January 2010 of a Hamas leader, which many attributed to an Israeli “intelligence agency,” the following story was published in the press: “A heated debate took place yesterday at the Israeli Parliament, in which Carmel Shama, a Likud MP, said that the assassination of Al-Mabhuh is the fulfillment of a *mitzvah* (divine commandment in Judaism).”³⁹⁶

East African Turkana warriors sometimes conducted attacks on neighboring tribes, mainly to steal their cattle, which often caused casualties on both sides. The Turkana believe in a supreme being, Akuj, and some Turkana warriors justify their acts attributing them to the will of Akuj.³⁹⁷

The following are quotes from Jewish settlers in the occupied Palestinian territories: “Abraham lived in these mountains. Hence, our rights arise.” “We found a mosaic under the garden. My father says the Samaritans made it. I’m happy; this proves that this land belongs to Jews.” “The Torah says that this land was given to us, that we are a special people and that there is a special place for us. I came here to accept that gift.”³⁹⁸

³⁹⁵ Thomas (1998, p. 470).

³⁹⁶ According to the newspaper *La Voz de Galicia* on 24 February, 2010, p. 22.

³⁹⁷ Mathew and Boyd (2011, p. 11376).

³⁹⁸ Muñoz (2009).

I assume that these justifications are given because they often are successful in the environment in which they are given. In this chapter, I will try to explain the reasons of this success.

Unless there is a design flaw, it can be expected that every human tends to give the most convenient justifications. The most convenient justifications are the most effective in their desired manipulative effect. In order for them to be effective, they must be credible; and credibility depends on the beliefs and attitudes of the audience. If the beliefs of members of a group, and therefore of potential audiences, tend to be common, justifications will be so too, which consequently will make them more credible within the group. And indeed beliefs of members of a group tend to be common, for the following reasons.

First of all, members of a group tend to share the same reality, and therefore the same sources of objective information. For example, according to historian H. Thomas: “The majority of Brazilians believed [around the mid-nineteenth century] that slavery was part of the natural order, given that for three hundred years, their ancestors used African slaves for labor; they agreed in this with the Southern United States slave owners.”³⁹⁹

Secondly, members of a same group also tend to share interests, because they share an environment and because they live in groups, and part of competition occurs collectively and not individually (as explained in chapter 4). Given that beliefs depend on the interest, as explained in the previous chapter, they tend to converge (i.e., deviations from realistic ideas tend to be common). For instance, it is likely that the belief that slavery was advantageous for slaves, as Aristotle argued⁴⁰⁰, and the belief that black slaves are insensitive to pain⁴⁰¹, are more common among masters than among slaves as a result of the different interests of both groups.

The third reason is that what people hear influences their beliefs, usually in the sense of nearing what they believe to what they have heard. Two sets of studies support this claim. According to the first, people tend to give more credibility to a statement the more times they hear it repeated.⁴⁰² According to the second, memories can be altered by incoming information, people being led to

³⁹⁹ Thomas (1998, p. 725).

⁴⁰⁰ Aristóteles (1977).

⁴⁰¹ According to Gould (2004, p. 88-89 and 137) this belief was defended by John Bachman, a Protestant pastor and naturalist from South Carolina in the nineteenth century, and by the prestigious anatomist Lombroso in a book published in 1887.

⁴⁰² Dechêne *et al.* (2010). Mojzisch *et al.* (2010) obtained similar results.

believe that they remember things that have never occurred, i.e., to have false memories⁴⁰³ (a serious consequence of this “social contagion” of memories are false testimonies made by witnesses—who believe they are telling the truth—influenced by misleading interrogations, prejudices and other social influences⁴⁰⁴).

This third reason leads to the fact that beliefs that are often expressed in a group tend to further increase its general acceptance. (Needless to say, this gives great power to advertising and propaganda. The powerful propaganda of the Nazi government⁴⁰⁵, along with Hitler’s extremely high ability to deceive, was decisive to obtain popular support which the government needed to carry out its belligerent policies. Therefore, power not only facilitates the use of violence, it also facilitates justifying it).

The fourth reason is the influence in the opposite direction, meaning the alteration of beliefs due to what one says, and not what one hears. People, when they know or think they know the beliefs of the person or group of people they address, tend to near their expressed ideas to those of their audience.⁴⁰⁶ When a person expresses modified ideas to suit the audience, or sometimes even when contemplating the idea of expressing them despite not doing so, these modified ideas tend to replace the original ones in this person’s memory.⁴⁰⁷ This “audience tuning” favors the convergence of beliefs for two reasons: through its influence on those who modify the beliefs they express, and through its influence on the audience who see their beliefs validated once again.

The third and fourth reasons I have just mentioned are due, in turn, to two main motives. One of them is often described as the desire to know the truth. For example, it has been claimed that a “person’s desire to respond appropriately to a dynamic social situation demands an accurate perception of reality.”⁴⁰⁸ If individuals have doubts and believe that others of their group agree with a certain statement, it seems natural that they consider that statement to probably be true.

⁴⁰³ Zaragoza *et al.* (2001), Braun *et al.* (2002), Thomas and Loftus (2002), Loftus (2003), Steffens and Mecklenbräuker (2007), Wright *et al.* (2009), Edelson *et al.* (2011). There are indications that even people with extremely good autobiographical memory are susceptible to false memories.

⁴⁰⁴ Gerrie *et al.* (2005).

⁴⁰⁵ Koonz (2005).

⁴⁰⁶ Lerner and Tetlock (1999), Echterhoff *et al.* (2009).

⁴⁰⁷ Lerner and Tetlock (1999), Marsh (2007), Higgins *et al.* (2007), Echterhoff *et al.* (2009), Hellmann *et al.* (2011), Hirst and Echterhoff (2012).

⁴⁰⁸ Cialdini and Goldstein (2004, p. 592).

As Kahneman says: “For some of our most important beliefs we have no evidence at all, except that people we love and trust hold these beliefs.”⁴⁰⁹

However, the claim of wanting to know the truth can only be partly true: as explained in the previous chapter, realistic and convenient beliefs are not always the same, and when they are not, humans, as far as we are well-designed, prefer the latter. Consequently, the first reason is not the desire to possess the most realistic beliefs, but rather the desire to possess those that are most convenient, which often coincide with the most realistic ones while often they do not. Group partners’ beliefs tend to be the most convenient if interests are shared with them: what our friends believe (because it suits them to believe) is probably what it is convenient to us to believe in.⁴¹⁰

The second main motive is the desire for social acceptance. As I explained in chapter 5, it is convenient to be similar to group partners. Two aspects in which similarity is possible are what we say and what we do. As much as both rely on beliefs, it is convenient that these are similar.

As I have mentioned in the previous chapter, self-deceptions cannot be indefinitely separated from reality as the more they get separated, the more probable it is for their two dangers to occur: the first is being considered a liar or an ignorant, and the second is colliding with reality due to an unrealistic view of the situation.⁴¹¹ When members of a group widely share their beliefs, as a result of the described processes, the first danger decreases accordingly, along with the need or benefit of realistic beliefs. Therefore, we can predict that, generally, the more similarity of interests there are among members of a group, and the greater the disconnection is present between that group and others, the more distance there will be between group beliefs and reality. Sects and “fanatical” groups may be extreme examples of this assertion. As Kahneman says: “We know that people can maintain an unshakable faith in any proposition, however absurd, when they are sustained by a community of like-minded believers.”⁴¹² We can also predict that humanity as a whole lacks realism in situations where interests are generally

⁴⁰⁹ Kahneman (2012, p. 274).

⁴¹⁰ Cohen (2003) found in several studies that the majority of individuals supported or not certain legal proposal based on what their political party deputies whom they sympathized with believed (but did not realize they did it for that reason).

⁴¹¹ These two dangers are the reason that having the most convenient beliefs is different to believing that the world is as we want it to be. For example, one may want to be a pharaoh who obliges other people to fan him in case of hot weather; but today it is very unlikely that the belief one is a pharaoh is convenient.

⁴¹² Kahneman (2012, p. 217).

shared, as it is (or has been until recently) the case of the belief that human species is exceptional, the overexploitation of nature and the (mis)treatment of animals. (Although it is true that in this case, at first glance, it seems that self-deception does not make sense: Who would we need to deceive if those who are capable of making or hearing statements agreed with each other? However, we have been designed to defend our image of wonderful and coherent people in a world where different individuals and groups often have different interests and motives to deceive one another, and it would be detrimental to our credibility not to defend this image in the few cases where we all agree.)

(The concept of *witch* from the 15th to the 18th century in Europe can illustrate several of the claims made in this chapter and the previous one.⁴¹³ Firstly, the witch concept was very consistent with other deeply held ideas. For example, the belief that witches could fly was consistent with the idea that they had to meet in distant places to secretly worship the devil, which in turn was consistent with the idea that they were part of a heretical sect and that their magical powers resulted from a pact with the devil, which in turn was consistent with the idea that they were those responsible (thanks to their magical powers) for the unexplainable misfortunes such as hailstorms that destroyed crops. All of this was also very consistent with the widely diffused popular and learned ideas about the devil, subject of many treatises written during that period: a 15th century Spanish theologian even suggested that the number of existing demons, including the various categories, amounted to 133,306,668.⁴¹⁴

Second, the claims and writings of the various protagonists mutually supported themselves. Judges used the information contained in witchcraft treatises to interrogate witches; under torture and in an extreme case of desire to please the audience, they generally declared what the judges wanted or expected to hear. And finally, the records of the trials were used by writers to improve and strengthen their “knowledge” of witches.

Thirdly and lastly, there were important and common interests who not only eased the witch hunt, but also strengthened the witch concept, which was indispensable for the hunt to take place. Believing in the devil, his presence and influence in the world served to instill fear in potential sinners and rebels.⁴¹⁵ The

⁴¹³ Levack (1995).

⁴¹⁴ Levack (1995, p. 58).

⁴¹⁵ According to Russell (2002, p. 93): “The sense of sin has played an important role in religion, especially in Christianity. In the Catholic Church, the sense of sin was a major

persecution of heretical sects served to maintain the Church's unity, making it stronger, while accusing witches of unexplained misfortunes was beneficial to the nearly universal desire of finding a culprit when harmful events occur.)

The last reason why justifications tend to work well within a group is slightly more difficult to explain than the previous ones but not less important. I mentioned in the beginning of this chapter that the credibility of justifications depends on the beliefs and attitudes of the audience. So far I have said a few things on beliefs, but attitudes are equally or more important. More than a attempt to communicate beliefs, justifications can be evidence of agreement regarding attitudes.

One of the things that members of a group or community are interested in communicating to each other is that they belong to the same group. As seen in chapter 5, one way to do this is using hallmarks. Beliefs, or rather expressions of beliefs, are a kind of hallmarks. The prayer called *Creed* is a good example of a expression of beliefs which is a hallmark. The phrase "expression of beliefs" must be understood in a broad sense, as it is perfectly feasible that people express their religious identity praying the Creed without understanding some of the claims it contains, something which hallmarks do not require.

That said, we can conclude that, in addition to our often unshakable faith in absurd propositions, people can display unshakable adherence to a hallmark. In fact, the expressions of beliefs that are better as religion and ideologies hallmarks are those which are difficult to test due to the lack of technological means or, even better, those which are impossible to test because they do not really contain any specific claim about the world (such as "human life is sacred"). A belief that is easily testable cannot be a good hallmark because if it is found to be true, individuals from other groups can also easily accept it, whereas if it is false, group partners may not accept it.⁴¹⁶ Catholic Church authorities were wrong in rejecting the heliocentric theory because technology could finally allow its verification, which is what happened. That risk is absent in Creed.

Many acts of human violence have been justified by expressions which would seem absurd if they were to be interpreted as beliefs about the world: "it is

source of power for priests, and served to facilitate the victory of the popes in their long struggle with emperors."

⁴¹⁶ Sperber (2009).

God's will,"⁴¹⁷ "because tradition calls for it,"⁴¹⁸ "for the flag," "because human life is sacred," etc. But these expressions are no longer absurd if they are understood as hallmarks, or as expressions of common attitudes or interests.

However, the concept of expression of shared attitudes is much broader than that of hallmarks proper, whether they are of religious nature or not. As explained in chapter 5, the mere fact of being similar to another may be enough to induce him with a positive attitude, thus we can guess that a certain justification would be more successful if used by someone similar to the audience than if it is used by somebody else; justification itself can be a way of expressing that similarity.⁴¹⁹ Therefore, a justification can be uninformative or absurd if we

⁴¹⁷ Here is an example of justification (not sure if successful) of the type "because it is God's will": Timothy Dwight, president of Yale's University from 1795 to 1817, said: "If God had decreed from all eternity that a certain person should die of smallpox, it would be a frightful sin to avoid and annul that decree by the trick of vaccination" (as quoted by Bloom, 2012, p. 194). And here is how U.S. President McKinley explained how he made certain decisions (as quoted by Galeano, 1990, p. 305): "I walked by the White House night after night until midnight; and I am not ashamed to admit that on more than one night, I fell to my knees and I begged for light and guidance to God The Almighty. And one late night, I received His guidance—I don't know how, but I received it: first, that we should not return the Philippines to Spain, which would be a cowardly and dishonorable action; second, that we should not give them to France or German, our commercial rivals in Orient, which would be unworthy and bad for business; third, that we should not leave them to the Filipinos, who are not ready for self-government and will soon suffer worst disorder and anarchy than under Spanish rule; and fourth, that we have no choice but gathering and educating the Filipinos, uplift them, civilize and Christianize them, and by the grace of God, do everything we can for them, as neighbors for whom Christ also died. I then went back to bed and slept soundly."

⁴¹⁸ According to Russell (2002, p. 145-146), in 1936, the House of Lords rejected a bill for voluntary euthanasia. Lord Fitzalan, who opposed the project, appealed both to tradition and to God: "For generations, the great majority of our predecessors in this House, of all creeds and all kinds of opinion, have accepted the tradition that the Almighty reserved to Himself alone the power to decide the moment when life should be extinguished. The noble lord of the opposition comes today with his bill and asks us to usurp this right, to ignore the Almighty in this respect, to insist on sharing this prerogative."

⁴¹⁹ Given the fact speaking with a foreign accent could be harmful in different situations (Gluszek and Dovidio, 2010) it would not be surprising that the justifications were more effective when issued in a native accent than in a foreign accent, even if listeners equally understand the message.

look at in its literal sense (or denotation) and yet report similarity or proximity if its connotation is taken into account, and that similarity or proximity is what induces a more positive reception of the justification. Stereotypes, for example, are not very useful to transmit the first type of information, but they are useful to provide information of the second type.⁴²⁰

In the next two chapters, I will talk about one of the most common justifications for violent behavior: “because we have the moral right to do so.”

⁴²⁰ According to Clark and Kashima (2007, p. 1028): “Stereotype-consistent and inconsistent information differentially serve 2 central functions of communication—*sharing information* and *regulating relationships*; depending on the communication context, information seen to serve these different functions better is more likely communicated. Results showed that stereotype-consistent information is perceived as more *socially connective* but less informative than inconsistent information, and when the stereotype is perceived to be highly shared in the community, more stereotype-consistent than inconsistent information is communicated due to its greater *social connectivity* function.”

11 Morality and violence

An ethical principle can be judged by the type of emotion that ensures it is well received. By applying this test, we discover that a significant number of widely held principles are not as respectable as they might seem. An honest examination would reveal that what often makes human beings embrace a principle, being valid or not, is whether this principle offers an outlet for certain not-so-noble passions, such as, above all, cruelty, envy and the pleasure of feeling superior.

Bertrand Russell

All systems of morality and theology have been invented to make people feel that violence is noble.

Bertrand Russell

The behaviors that people usually refer to as “immoral” are not those that are harmful to society or to the majority of individuals or their interests, as is often believed, but instead mainly those against which it is generally accepted to react with violence.⁴²¹ Although it is true that a main reason why it is socially accepted to react with violence against a behavior is to discourage those behaviors that cause harm, there are also other reasons, and it is even possible that sometimes the qualification of “immoral” and its associated violence be materially useless or harmful to their authors.

Two definitions of morality and moral norms which I consider to be highly illustrative state that morality is a “code of conduct put forward by a society,”⁴²² and that “to establish moral rules is to impose rewards and punishment... to

⁴²¹ I will defend this statement in this chapter. In the following chapter I will complete my description of human morality when discussing the misleading component of moral judgments and rules and competition for moral reputation.

⁴²² “The term ‘morality’ can be used either (1) descriptively to refer to a code of conduct put forward by a society or, (a) some other group, such as a religion, or (b) accepted by an individual for her own behavior or (2) normatively to refer to a code of conduct that, given specified conditions, would be put forward by all rational persons.” (Gert, 2012).

control social acts that, respectively, help or hurt others.”⁴²³ I will make some criticisms of these definitions.

The first is that the idea of morality as a code is misleading, although it was and is supported, in part, by the currently obsolete belief that moral decisions are primarily a result of deliberation. Affirming that morality is a code can be misleading because—as is the case with genetic, Morse and Braille codes—codes are often a clearly specified correspondence between two sets of clearly defined things, while in comparison, morality is very vague. However, the idea that morality is a code is consistent with the incorrect idea that we take moral decisions upon deliberation: we deliberate to elucidate to which type of situation a specific situation belongs, and then we only have to apply the code, which tells us which type of conduct corresponds to that type of situation.

The second criticism is more important. The fact that rewards and punishments were imposed *to* “control social acts that, respectively, help or harm others” would mean that the aim of punishment is *only* to discourage harmful behaviors. This is implausible, since aggressions, like other behaviors, have several simultaneous and unknowable motivations: how could the authors and users of a code of conduct know that a particular aggression is a punishment as such (i.e., an aggression whose effect is discouraging) and nothing else?

For numerous reasons, there are many individual desires to exercise violence and to do favors, which cannot always be carried out due to opposition by others. The most socially supported types of violence and favors will tend to become moral standards, regardless of what their particular combinations of motivations or causes are. To the extent to which it can be considered as a code, morality, rather than being a code of conduct, is instead a code of aggressions and rewards; in other words, a code that defines—albeit vaguely—which aggressions and, to a lesser extent, which rewards are socially supported, regardless of their motivations.

(A third criticism related to the previous one is that morality cannot be something put forward by a society since societies cannot put forward anything as they are not individuals—in Chapter 5 I mentioned something about the

⁴²³ “To establish moral rules is to impose rewards and punishment (typically assistance and ostracism, respectively) to control social acts that, respectively, help or hurt others. To be regarded as moral, a rule typically must represent widespread opinion, reflecting the fact that it must apply with a certain degree of indiscriminateness. Moral rules are established and maintained primarily by application of the concepts of right and wrong.” (Alexander, 2007, p.77).

tendency to attribute individuality to groups—nor are they made up of equal individuals and nor have they real spokespersons. Morality is, rather, the result of a balance of forces, which only superficially looks like a social contract).

Several independent lines of research support these statements, including the research into costly punishment (often called “altruistic” or “moralistic”) in public goods games or other economic games, as I commented in Chapter 3 and, above all, research based on asking subjects directly to make moral judgments on hypothetical behaviors.

In a group of studies, it was found that the subjects tended to judge a behavior as immoral where neither causes damage nor intends to cause it: betting on there being a hurricane in the Third World.⁴²⁴ The subjects seem to have a tendency towards believing that, even though there is no intention to cause a hurricane, there certainly can be a desire, and the attribute of such a desire to the actor is what leads to judging the bet as immoral. The authors propose that moral judgments of acts partly depend on the information that these acts provide on the character of their authors⁴²⁵; in other words, it appears that in the reply to the question “Was that action wrong?” there is the influence of the reply to this other question: “Could only a bad person have done it?” In other words, the question makes it possible to identify “morally bad” people, probably with an overall harmful conduct, although the conduct in point judged is not so. Punishment that often follows a moral judgment would not, in this case, be educational (discouraging) since there is nothing bad in the action in itself, but rather it would be an aggression to these “bad people.”

In another study, the subjects judged the hypothetical case of the director of a hospital who opted for spending a certain amount of funds on a new piece of equipment for the hospital, rather than spending it on an operation that would save a boy’s life. The subjects who were told that the director had taken his decision swiftly proposed a harsher punishment for the director than the subjects who were told that he had taken such a decision after giving it considerable thought. The authors’ interpretation is that, in the second case, the queries are indicative of there being an important motivation in the director to save the boy—although, at the end of the day, this was overtaken by the motivation

⁴²⁴ Inbar *et al.* (2012). This hypothetical case was intended to look like the situation of those who invest money in financial instruments basically involving bets, as is the case of the futures markets.

⁴²⁵ Pizarro and Tannenbaum (2011), Tannenbaum *et al.* (2011) and Uhlmann *et al.* (2014) also defend and explain this hypothesis.

favorable to buying the piece of equipment—an indication absent in the case of the swift decision.⁴²⁶

In the studies referred to above, moral badness or bad character was inferred from the behavior judged itself, and this badness influenced moral judgment. Another possibility is that badness is inferred regardless of the behavior judged and influences in how this is judged. A certain study⁴²⁷ investigated into how much causal force the subjects attributed to the same given behavior under different circumstances, and how much punishment they proposed, depending on the case. The behavior judged was that of a driver who was driving over the speed limit and, when he reached a crossroads, braked but was unable to avoid crashing into another car whose driver was harmed. Different subjects were given different versions that varied over two points. One of these concerned what other possible cause of the accident there could have been, out of 3 possibilities: the stop sign for the driver being judged was covered over by a tree branch, there was oil on the road, or the harmed driver failed to stop at the sign. The other involved independent information, which did not intervene in causing the accident: the driver being judged was in a hurry to get home in time to hide the anniversary present for his/her parents, or alternatively, he was in a rush to hide a vial of cocaine. The subjects judged that the main cause of the accident had been the judged driver's behavior, and not the other concurrent cause, to a greater extent if the reason for his rush had been to hide the cocaine. Even when it was said that the other driver had failed to stop at the sign, the behavior of the judged driver was chosen as the main cause for the accident by more subjects than that of the other driver if the rush was intended to hide the vial, something that did not happen when the rush was related to hiding a present. In line with the above, the subjects proposed a greater compensation for the harmed driver in the "cocaine" cases than in the "present" cases. What appears to occur here is that independent information allowed the subjects to judge the character of the person judged, this judgment exerting an influence on the wish to punish such a person and this desire having an influence on their beliefs as to what the main cause of the accident was and in their proposals for punishment.⁴²⁸

⁴²⁶ Crichton *et al.* (2013).

⁴²⁷ Alicke (1992).

⁴²⁸ The studies by Knobe and Fraser (2008) also support the idea that being morally blamable leads to the person being all the more responsible.

The fact that not only certain behaviors but also certain types of individuals can be the object of moral (and legal) condemnation may help to explain other facts. There are certain offenses that consist of expressing opinions, such as “glorifying terrorism” and “denying genocide.” Those who support punishing them will possibly allege that these crimes spread negative beliefs that eventually lead to negative actions, and therefore these expressions harm interests. But the importance of this effect is uncertain, and it is also possible that the punishments can infuriate those who are punished and their allies, and given the high proportion of human violence attributable to retaliation, they cause more damage, through a cycle of revenge, than that which could be avoided by suppressing the spread of negative beliefs. Nevertheless, in this case there is probably a very different benefit of violence: those who commit these crimes identify themselves as a certain type of enemy, allowing those who have the power to punish them to apply the treatment reserved for their enemies, or use them as victims of violence with other motivations, such as the demonstration of power.⁴²⁹

Laws prohibiting the use of certain drugs and their trafficking (although this has added motivations⁴³⁰) may be other examples of laws largely motivated by the goal of damaging certain types of individuals, rather than because the behavior is harmful in itself. According to Pinker, “people who commit violent crimes get into trouble in other ways, because they tend to favor instant gratification over long-term benefits.”⁴³¹ As a result, among other things, they are more likely to abuse alcohol and drugs. “A regime that trawls for drug users

⁴²⁹ I cite in footnotes 55 and 279 other cases of legal violence seemingly directed towards enemies identified by their political or religious beliefs.

⁴³⁰ Many people and some legal systems do not consider the consumption of illegal drugs reprehensible, but condemn profiting from providing illegal drugs for consumption. Illegal immigration can be morally permissible too for the same people who consider that those who help people to immigrate in exchange for money are criminals; for many people, organ donation is a morally praiseworthy action, while selling an organ is blameworthy; and other activities such as giving birth to a child, going to war and having sex can become immoral if the agents receive money for them. I am not aware of any research on the causes of these facts, but one possible explanation is this: offering free help is a sign of altruism, while asking for money in exchange is a sign of selfishness, and people have reasons to prefer others to be altruistic and not make money.

⁴³¹ Pinker (2012, p. 122).

or other petty delinquents will net a certain number of violent people as by catch, further thinning the ranks of the violent people who remain on the streets.”⁴³²

A further possibility, compatible with the previous one, is that the repression of drug consumption is related to human reproductive strategies. Such strategies may be located on a continuum between two typical strategies: the long term or *restricted* strategies of those who invest a good deal of effort in their partners and children that they have with them, and the short term or *non-restricted* strategy of those who invest a good deal of effort in having many partners and children and little effort in each of them or in their children.⁴³³ As it seems, in the United States this second non-restricted strategy appreciably correlates with drug consumption.⁴³⁴ Furthermore, drug consumption may encourage promiscuity. If those practicing the first strategy know these relationships, they could encourage the persecution of drug consumption as a way of eliminating circulation for those who practice the second strategy, who involve a hazard for the faithfulness and commitment of their partners. Two studies covering samples from 4 countries produced results that support this possibility: both obtained an appreciable correlation between the opposition to drug consumption (including its moral condemnation) and restricted sexual attitudes. Conversely, the correlation between said opposition and political and religious ideas or attitudes turned out to be less, besides being a variable between some countries and others.⁴³⁵

⁴³² Pinker (2012, p. 122).

⁴³³ In other words, the long-term strategists (the reproductive strategies are not normally chosen consciously) give preference to investing in rearing as opposed to investing in mating as well as to reproducing in the future rather than in the present. The long-term strategy (termed “K-strategy” in Population Biology), is encouraged by stable environments, with a low risk of mortality, a foreseeable provision of material resources and a high population density (Rushton, 1985; Gladden *et al.*, 2009). Besides each individual being able to be closer or more distant from being a K-strategist, different species and different human groups, such as different races may, on average, be able to be so (Rushton, 1985).

⁴³⁴ Whitaker *et al.* (2000), Weeden and Sabini (2007).

⁴³⁵ Specifically, in the study conducted in the United States (Kurzban *et al.*, 2010), the correlation between political and religious ideas or attitudes towards consumption turned out to be indirect, as a result of the correlation between the first and sexual strategies. Conversely, in the samples from Belgium, Holland and Japan, some religious ideas and attitudes certainly did have an independent correlation with the opposition to

(Since the same violent behavior may have different motivations in different individuals and even in the same individual, the punishment of drug use, like any other, may also have different motivations. Besides the two discussed above and the most frequently alleged, the concern for the health of addicts⁴³⁶, I will comment on two further motives. The first is that, as I will argue below, for many people pleasure, especially that of others, is bad in many cases. The other is that by persecuting the consumption and trafficking of drugs for other reasons, a new strategic interest in continuing to prosecute their use and trafficking is created: the interest of those who are professionally involved in this process. Approximately forty billion dollars are spent on drug policy in the U.S. each year, and many thousands of people would lose their jobs if drugs were legalized.)⁴³⁷

In reality, there is no need for those practicing the restricted strategy to know the correlation between sexual attitudes and drug consumption so that this correlation leads to condemning its consumption. It is sufficient that these two conditions occur: that people consider that some behaviors are morally bad partly because it is others who usually practice them,⁴³⁸ and that people's beliefs about what should be immoralized will take effect on what behaviors are in fact

consumption, although to a lesser degree than that of sexual attitudes or strategies (Quintelier *et al.*, 2013).

⁴³⁶ Prohibitions on drug use are hindering different neurological and medical research programs that could be useful to public health (Gross, 2013). On the other hand, many dangerous activities such as extreme sports are legal and moral.

⁴³⁷ According to Jeffrey Miron, in an interview by Takis Würger originally published in *Der Spiegel* ("Los lobbies prohibicionistas," 2013).

⁴³⁸ In other words, that regardless of if people tend not to apply conducts that are considered immoral, people tend to consider immoral conducts that they do not apply. The results obtained by Valdesolo and DeSteno (2007, 2008) support that the condition is met. In these studies, subjects, on average, censored a hypothetical behavior enacted by others more harshly than the same behavior enacted by them. People may tend to consider bad what they usually do not do simply because they tend to consider good what they usually do; that is, because people tend to value what is associated with them more than what is not. For example, the impulsive behaviors carried out by agents in a "hot" state (such as fatigue, hunger or sexual arousal) are judged less harshly by the subjects if they are put in that same hot state than otherwise (and, at the same time, those agents are judged more similar to subjects by the latter) (Nordgren *et al.*, 2007). According to Nordgren *et al.* (2007, pp. 82-83): "Because people are generally unable to appreciate the motivational force of states that they are not currently in, people in a cold state have difficulty empathizing with those who act on their impulses."

immoralized (as seems obvious enough). If this occurs, the activities of the least powerful minorities (abbreviated to “the weak”) will tend to be considered immoral or outlawed, for the simple fact that these activities are mainly carried out by such minorities.⁴³⁹

A different cause can lead to this same result. I explained in Chapter 7 that there is an almost universal reason for aggression: the demonstration of power. Since it is safer to attack the weak, it is expected that more people want to aggress and justify their aggression against weak rather than against strong people. That is, *to some extent*, strong people desire to aggress the weak⁴⁴⁰ not only because they are competitors and different, but also because they are weak. (Similarly, to some extent, weak people wish to aggress the strong, for being competitors and being different, and in the name of “justice” or because of envy; although they usually find it harder to do than the other group.)

According to Pinker, people with a lower social status rely less on the law, partly because some of them “make a living from illegal activities like drug dealing, gambling, selling stolen goods, and prostitution, so they cannot file lawsuits or call the police to enforce their interests in business disputes.”⁴⁴¹ These activities may have been banned in part precisely because they are mainly practiced by people of low status, once other more attractive jobs have been preferentially occupied by those of higher status. Similarly, it may be the case that, although some white-collar crime is very harmful to many people, it is not sufficiently punished because it is mainly available to people of a high status.

(In societies stratified into castes or social classes, the bargaining power of those in a stronger position is also used to justify stratification. Referring to these very stratified and hierarchical societies, F. Guala states: “Moral theories and political ideologies must justify a stratified system of privileges, rights, and duties that stem from a central authority endowed with absolute power of life and death over its people. Myths and religions typically provide a touch of supernatural legitimacy to these massive asymmetries of bargaining power.”⁴⁴²)

⁴³⁹ According to Rozin *et al.* (1997, p. 67), “the likelihood of moralization seems to increase if the offending activity... is practiced primarily by an already stigmatized minority.”

⁴⁴⁰ Of course, the classification of people into strong and weak is a major simplification; I have only used it with the intention of making it easier to express my ideas.

⁴⁴¹ Pinker (2012, p. 84).

⁴⁴² Guala (2013, p. 93). According to Pinker (2012, p. 640), the “objective study of history” weakens certain moral intuitions (related to community, authority and purity)

Experiments have shown that we human beings sometimes value more the same good or service when it has cost us more effort to get it.⁴⁴³ One proposed explanation is that people establish this association between the good and the costly to defend their image, thinking along the lines of: “I made a great effort. As I am a very smart person, what I got with it has to be very valuable.”⁴⁴⁴

Another possible origin of this association is that among things existing in limited quantities, the valuable things interest more individuals and are more disputed than things with little value, and therefore, it costs more effort to get them. For this reason, the Spanish word “caro” has the following meanings: “beloved, dear” (the original meaning), “laborious” and “high-priced.”

Another possible cause of mental association between costly and good and its implicit reverse, the association between the pleasant and the bad, is that as (dis)incentives for social behavior increased throughout evolution, there was an increase in the frequency of situations in which the short and long-term interests were different, where punishments and rewards made it appropriate, in the long-term, to restrain certain impulses, aggressive or otherwise, that were only beneficial in the short-term. This new situation was, in part, learned on an

which might be especially related with violence. According to Pinker (2012, p. 640-641): “In this tissue of rationalizations, a real historian is about as welcome as a skunk at a garden party. Donald Brown (...) wanted to explain why the Hindus of India had produced so little in the way of serious historical scholarship, unlike the neighboring civilizations of China. The elites of a hereditary caste society, he suspected, figured that no good could come from scholars nosing around in archives where they might stumble about evidence that undermined their claims to have descended from heroes and gods. Brown looked at twenty-five civilizations in Asia and Europe and found that the ones that were stratified into hereditary classes favored myth, legend, and hagiography and discouraged history, social science, natural science, biography, realistic portraiture, and uniform education.”

⁴⁴³ Gerard and Mathewson (1966), Rosenfeld *et al.* (1984). For example, in relation to romantic love, Russell (2009, p. 29) says: “The belief in the immense value of the lady is a psychological effect of the difficulty of obtaining her.”

⁴⁴⁴ Some experiments with animals (Kalcenik and Marsh, 2002; Lydall *et al.*, 2010; Zentall, 2013) have produced the same result as for humans. In these cases, the explanation put forward is that the value of a food depends on the level of need that the individual has to obtain it (the same foods are tastier the greater the hunger is), and the need is usually greater after a considerable effort is made. It is unclear as to what extent this explanation is applicable to humans.

evolutionary basis by the species concerned.⁴⁴⁵ The development of children reproduces, to some extent, what happened in the course of evolution, so that throughout growth, their capacity for self-control increases.⁴⁴⁶ In this manner, a correlation may be established between the good and bad, in the long-term, and the unpleasant and the pleasant, respectively, in the short-term. (This association is better known by adults than by children, and more so by people with more self-control than the more impulsive, so that educators—parents, teachers, priests, etc.—might try to instill this, not always peacefully, in their children or students.⁴⁴⁷)

Another reason why one can associate pleasure with the bad is that it is preferably enjoyed by others.⁴⁴⁸ People who repress their impulses in exchange

⁴⁴⁵ To illustrate this, it is often the case that parts of the evolutionarily modern parts of the brain inhibit violent impulses generated in the more primitive parts of the brain (Siever, 2008; Archer, 2009a).

⁴⁴⁶ Several studies have found that the majority of the children studied in their second year of life were physically aggressive towards their brothers and sisters, other children and adults (Tremblay *et al.*, 2004; Archer, 2009a), although this fact goes unnoticed because their capacity to harm is very limited. According to R. Tremblay (as quoted by Holden [2000, p. 581]): “Babies do not kill each other, because we do not give them access to knives and guns.” ... “The question ... we’ve been trying to answer for the past 30 years is how do children learn to aggress. [But] that’s the wrong question. The right question is how do they learn not to aggress.”

Steinbeis *et al.* (2012) found that the increase in age, between the ages of 7 and 14, is accompanied by an improvement in controlling impulses and in strategic decisions (as well as in changes in a certain area of the pre-frontal cortex, an evolutionarily modern part of the brain).

⁴⁴⁷ According to Russell (2002, p. 54-55): “The foresight implied by doing unpleasant things, with a view to pleasant things in the future, is one of the most important characteristics of mental development. Since foreseeing is difficult and calls for controlling impulse, the moralists focus on the need for such control, and place more emphasis on the virtue of present sacrifice than in the pleasure of subsequent reward But it is easy to take this mental attitude a step too far. It is pathetic to see an old, rich businessman who has become dyspeptic because of his work and the worries of his youth, so that he can now only eat toast and drink water whereas his unconcerned guests tuck in to a great banquet. The joys of wealth, which he had foreseen through long, laborious years, have evaded him, and the only pleasure remaining to him is the use of financial power to force his offspring, in turn, to subject themselves to a job that is equally monotonous and useless.”

⁴⁴⁸ See what is said in reference to Nordgren *et al.* (2007), in footnote 439.

for future profits have a reason to stand up for the idea that what they do is valuable, decent and moral, while “surrendering” to the wishes of immediate pleasure should be labeled immoral and be outlawed, i.e., they can go beyond the desire to educate those who are impulsive, as referred to in the preceding paragraph, and want to punish them for being different. If it turns out that self-control leads to economic success, they may be in a position to get it.⁴⁴⁹

At this point, I shall add a conjecture to the causes outlined above which, if correct, would help explain the relationship between the bad and the pleasurable *for others*. People for whom things are going well, who are successful, are usually happier than those who are not. So that joy is a sign of success, and makes those who have it attractive as potential partners or allies. Thus, being happy is beneficial for oneself, although detrimental to competitors who will have a reason to hate and envy the happiness of others and to try to make believe that the pleasure that leads to joy in others is morally wrong.⁴⁵⁰

Whatever its causes, said mental association is, in turn, a cause of suffering and of a reduction of pleasure and, often, of violence, as it promotes the costly and laborious while devaluating the contrary. Russell states, for example: “I can think of no example of a wrong medical treatment that were pleasant for the

⁴⁴⁹ The so-called “Dry Law” (which required the 18th Amendment to the U.S. Constitution) in force in the United States from 1920 to 1933, was a success of a movement that apparently stood up for abstinence from alcoholic beverages as a moral good. However, according to Gusfield (1986), what in fact it stood up for was the social status of a certain part of the population, and it did so by attempting to establish the fact that drinking, something that said part of the population did not do (or did so to a small extent) was so immoral that it even deserved to be outlawed: “The Eighteenth Amendment was the high point of struggle to assert the public dominance of old middle-class values” (Gusfield, 1986, p. 7).

Gusfield (1986, p. 28) also cites two cases where a rebel group condemned pleasurable behaviors probably because these were commonly carried out by those against whom the group rebelled:

“The Lollardists of sixteenth-century England prohibited drinking, gambling, and sports—the prized leisure-time pursuits of the upper-class Catholics against whom they rebelled. The Pentecostals of Gastonia, North Carolina, expressed their revolt against the organized churches of the 1920’s by a stringent set of restrictions on dancing, drinking, and movies.”

⁴⁵⁰ Russell (2009, p. 99) cites the “instinctive unconscious jealousy” as one cause for a person to “desire to punish those who have enjoyed what she has forgone.”

patient rather than being unpleasant.”⁴⁵¹ Although he is referring here to cruelty, the mental association discussed earlier may also be one of the causes, or because the doctor is a victim of the association or because he assumes that the patient is, and his proposal is to make use of the placebo effect (in the latter case, the unpleasant treatment may be worthwhile, but it would still be preferable that the placebo effect would also work well with pleasant treatments). Another example is that many educators inculcate the idea that effort and work are good in themselves (this idea is sometimes called “work ethics”), regardless of it leading to any useful practical results. If they succeed, their students will be willing to work to get nothing in return, except for something such as the “satisfaction of having done one’s duty” or social approval. Another more extreme example is that of self-flagellation, practiced by some religious people.

The mental association between the pleasant and the bad may be one of the causes of the condemnation of the perhaps more typically immoral behaviors: those in which sexual pleasure is obtained. But given that in the past there was a close relationship between sex and reproductive success, it can be expected that sexual morality also has other important known or unknown evolutionary roots.

It is evident that certain types of sexual behavior cause or may cause damage to interests, and the moralists who condemn them are able to identify and explain this damage. This is the case of rape and behavior involving breach of contract, such as marital infidelities. The hypothetical harm caused by many other behaviors, such as homosexuality and masturbation, is more difficult to ascertain. In these cases moralists often provide complicated explanations, to which I give little credibility, based on vague concepts such as *purity*, *virtue* and *dignity*.⁴⁵² However, if we rule out the belief that moral rules are created in order to discourage damage to society, and take the view that moral rules are largely the result of a balance of forces involving every reason to aggress and to inhibit aggression, then we can understand what happens: a

⁴⁵¹ Russell (2003, pp. 268-269).

⁴⁵² Referring to masturbation, Kant (1994, p. 86) wrote: “That such an unnatural use (and so misuse) of one’s sexual attributes is a violation of one’s duty to himself and is certainly, in the highest degree, opposed to morality strikes everyone upon his thinking of it... However, it is not so easy to produce a rational demonstration of the inadmissibility of that unnatural use... The ground of proof surely lies in the fact that a man gives up his personality (throws it away) when he uses himself merely as a means for the gratification of an animal drive.”

variety of reasons, which are not always known, lead many people to want to “punish” the behavior of certain others (whether this behavior is sexual or not), and then it is convenient to somehow arrange the justifications for these desires and punishments.

To find out why so many types of sexual behavior that are freely accepted by their practitioners and seemingly harmless to others are immoral, we need to know what reasons people may have for wanting to aggress those who practice them. For now, pending further investigation, and without attempting to explain all of the different cases, I offer the following answer to the question about these reasons, in five points.

1: Control of the sexuality of offspring

The reproductive capacity and the sexuality of sons, and especially, daughters, are a valuable resource parents often want to control, in order to maximize the “production” of grandchildren, to exchange it for money or favors, or to gain political kinship with powerful families. In societies where women’s sexuality was or is, to some extent, their parents’ property, unauthorized use of their sexuality by women can be seen as something that harms the interests of parents, who have a reason to suppress it. Especially, the “market value” of a daughter of marrying age is usually higher if she is a virgin and has a social image of fidelity. As a result, their parents have a reason to suppress behavior that may lead to them losing their virginity and social image.

Also, people often assume that the different members of a family share the same traits and goals, in the same way as it is generally assumed that the different members of a group do, as discussed in Chapter 5. This has two consequences. Firstly, people tend to blame (and praise) a whole family for the behavior of each of its members. Secondly, they tend to assume things like if a daughter is “dissolute” her sisters and nieces are also likely to be, with the result that the behavior of the former affects the marriage prospects of the latter. Therefore, the heads of the family seek to ensure, often by violent means, that the conduct of each member befits the social image they wish to project, corresponding with what is considered as “honorable” in their society.⁴⁵³

⁴⁵³ “Honor killings”, which are relatively common in some Muslim societies and committed by close relatives of the victims, are an extreme case of this type of violence. According to Mackie (1996), infibulation and the old Chinese custom of foot binding are related to the desire of parents to send signals of loyalty to husbands from their daughters, indicating their suitability for marriage and the honor of the whole family; those customs

2: Avoidance of risks

The typical emotion that expresses aversion to sexual behavior is disgust, whose original function is believed to have served in order to reject contact with toxic substances or carriers of pathogens. Perhaps disgust spread to sexual behavior because of what it has in common with these substances, as it can result in catching mainly sexually transmitted diseases. According to some authors, if this is the case, then it makes sense to feel aversion both towards performing certain types of risky sexual behavior and to those who perform it in the same community, as in the latter case they may introduce or spread disease in the community, which may end up affecting you or your friends.⁴⁵⁴

Furthermore, parents with teenage children, especially teenage daughters, may attempt to control their sexuality not only in order to direct it to where it best suits the parents, but to avoid the costs that frequently accompany teenage pregnancies. Nevertheless, this problem is greatly reduced if teenagers have access to effective contraception, as is often the case today. In this case, continuing to oppose this sexuality would be a mistake, due to evolutionary or cultural inertia.)

3: Design error

Incest is a typical behavior that many people know it is immoral, but are unable to explain why.⁴⁵⁵ Incest carries an increased risk of producing sickly or

originated in conditions of extreme economic inequality that favor polygamy, and were later maintained as social conventions. According to Wilson (2008), male genital mutilation damages the reproductive capacity, and originated in a similar way to female genital mutilation: parents accepted that their sons suffered it in order to reduce their ability to impregnate women married to powerful men, who were probably polygamous. In return, in this case, they would have access to the benefits of living in society. (These cases are examples of what I discussed in Chapter 6 regarding animal hierarchies, which is equally applicable to human hierarchies: submission to the highest-ranking individuals often have high costs, but these costs may be lower than those of living outside a group.)

⁴⁵⁴ Fessler and Navarrete (2004), Vandello and Hettinger (2012).

⁴⁵⁵ Haidt *et al.* (1993), Haidt and Hersch (2001). According to Russell (2002, pp. 49-50), St. Thomas Aquinas tried to defend the Christian moral rules by utilitarian considerations. Regarding incest he defended, apparently unaware of its biological risks, that “brothers and sisters should not marry because if affection between brother and sister joins affection between husband and wife, the total would be so large that it would lead to an excess of passion.”

deformed children, which has led to people usually feeling an aversion⁴⁵⁶, to some degree innate⁴⁵⁷, towards committing incest. Yet this apparently does not explain why many people want to morally condemn and punish incest committed by others. It has been suggested that the explanation may be a combination of different design imperfections.⁴⁵⁸

Historical accidents are cited as one of the possible reasons why incest is condemned⁴⁵⁹, and this possibility may extend to the condemnation of sexuality in general. One possible reason why apparently harmless sexual behavior is condemned is the fact that some large religions, such as Christianity and Islam, are especially suppressive of sexuality, which may well be the result, in part, of historical accidents. Russell suspects this in the case of Christianity.⁴⁶⁰

⁴⁵⁶ In principle, not to be attracted by inconvenient sexual behaviors seem sufficient not to engage in them. Tybur *et al.* (2013) argue that it is not, as an uninterested individual may be pursued by other, and this makes the special measure of disgust convenient. These authors extend this explanation of incest aversion to aversion to sex with individuals who are bad as breeding mates, such as same sex individuals, those outside of reproductive age or those of other species; but in some of these cases, a lack of interest in sex seems enough to avoid it (as pursuing it is not feasible or likely).

⁴⁵⁷ Lieberman *et al.* (2003), Fessler and Navarrete (2004).

⁴⁵⁸ Fessler and Navarrete (2004, pp. 291-292).

⁴⁵⁹ Fessler and Navarrete (2004, p. 291).

⁴⁶⁰ Russell (2009, pp. 19-20) states the following: "I suspect that other causes more obscure than any we have yet considered had to do with the increasing ascetism of the ancient world in its later days. There are epochs when life seems cheerful, when men are vigorous, and when the joys of this mundane existence are sufficient to give complete satisfaction. There are other epochs when men seem weary, when this world and its joys do not suffice, and when men look to spiritual consolation or a future life to make up for the natural emptiness of this sublunary scene. Compare the Solomon of the 'Song of Songs' with the Solomon of Ecclesiastes; the one represents the ancient world in its prime, the other in its decay. What is the cause of this difference I do not profess to know. Perhaps it is something very simple and physiological, such as the substitution of a sedentary urban life for an active life in the open air; perhaps the Stoics had sluggish livers; perhaps the author of Ecclesiastes thought that all is vanity because he did not take enough exercise. However that may be, there is no doubt that a mood such as this leads easily to a condemnation of sex. Probably the causes we have suggested, and various others also, contributed to the general weariness of the later centuries of antiquity, and of this weariness asceticism was one feature. Unfortunately it was in this decadent and morbid period that the Christian ethic was formulated. The vigorous men of later periods have had to do their best to live up to an outlook on life belonging to diseased, weary and

Mental associations can also lead to errors when they are applied to cases that differ from those that justified their creation. For example, sometimes the mental association between what is pleasant and what is bad is justified, and sometimes it is not. There may also be a mental association between sexual behaviors that can lead to pregnancy and sexual behaviors that cannot, and an aversion to the former, which is most likely to be harmful to interests, can spread to the latter.

Finally, evolutionary and cultural inertia are other possible causes of condemnation of harmless behaviors.⁴⁶¹ For example, many people condemn incest even if practiced with two simultaneous contraceptives.⁴⁶²

4: Harm to competitors and displays of power

To a certain extent, people want to harm their real or potential competitors and, as discussed in Chapter 5, they do so by directing violence preferably

disillusioned men who had lost all sense of biological values and of the continuity of human life.”

It could be argued that if an aversion to sex in the Christian religion was a product of an ancient historical accident, practitioners would have eliminated it. The objection is partly correct—and it is indeed possible that this aversion is weakening—but in principle, a religion is a set that one accepts as a whole, unable to accept only what suits. Thus, if a religion is advantageous for other reasons, its followers may have to tolerate its less desirable aspects.

(On the other hand, note that Russell assumes that very important events, such as the origin of Christian ethics, may result from usually unexpected reasons, such as exercising too little. Horgan [1998, p. 300] says the following about mathematician G. Chaitin, whom he had interviewed: “He himself surmised his pessimism could be related to the fact that he had eaten too many toasts that morning. He noted that the source of the pessimism of the German philosopher Schopenhauer, who advocated suicide as the ultimate expression of existential freedom, had been attributed to his liver discomfort.”)

⁴⁶¹ According to Russell (2009, p. 109): “In sex, as in economics and in politics, our ethic is still dominated by fears which modern discoveries have made irrational, and the benefit to be derived from those discoveries is largely lost through failure of psychological adaptation to them.” Contraceptive methods and antibiotics are examples of those discoveries.

⁴⁶² Haidt *et al.* (1993). According to Gilbert (2011), as a result of evolutionary inertia, humans are overly-sensitive to the dangers of “immoral” behavior, and highly insensitive to modern hazards.

towards those who are *different*. This leads to the fact that minority behaviors tend to be the object of aggression and moralization.⁴⁶³

Many people also want to use violence to display power, and do so by preferably aggressing the weak, meaning it is also more likely that behavior is immoral if it tends to be carried out by powerless people. This can lead to the increased condemnation of the sexuality of children, the young⁴⁶⁴, the elderly and women, as well as the sexuality that is most accessible to the poor, namely the cheapest. This could help explain, for example, why masturbation, something that is most frequent in young people, and free, is condemned. (Some authors state that some pleasures, such as those derived from visiting the opera and museums, are more refined than others. Perhaps what distinguishes those pleasures is that they are mainly enjoyed by the upper class. If my argumentation is correct, they will therefore receive more public support or less suppression than more “basic” pleasures: “It is said that Puritans banned bear baiting not because it caused pain to the bears, but for the pleasure it gave viewers.”⁴⁶⁵)

5: Harm to sexual competitors

The correlation between religiousness and conservative or repressive sexual morality and restricted sexuality⁴⁶⁶ does not imply a direction of causality going from the former to the latter. It may also be the case that the strategy of restricted sexuality is a cause of both repressive sexual morality and religiousness, and that people therefore adjust their religiousness and sexual

⁴⁶³ Fessler and Navarrete (2003, pp. 14-15) reach the same conclusion, albeit from a slightly different argument. And so do Fessler and Navarrete (2003, pp. 14-15), who argue that, from a strategic point of view, whoever feels disgust towards certain acts, and therefore would not perform them even if they were allowed, has little to lose adopting and fostering a rule against these acts.

⁴⁶⁴ According to Russell (2009, p. 19): “The instinctive husband, when he finds that his wife has betrayed him, is filled with disgust against both her and her lover, and is apt to conclude that all sex is beastly. Especially will this be the case if he has become impotent through excess or old age. Since old men have in most societies more weight than the young, it is natural that the official and correct opinion on sexual matters should be not that of hot-headed youth.”

⁴⁶⁵ Sandel (2011, p. 66).

⁴⁶⁶ Weeden and Sabini (2007), Weeden and Kurzban (2013). According to the results obtained by Weeden and Kurzban (2013), the correlation between religiousness and conservative or repressive sexual morality is quite higher in richer countries than in poorer ones.

morality to suit their reproductive strategy.⁴⁶⁷ One way to adjust behavior towards a restricted sexual strategy is by developing an aversion to sex. This aversion may lead to preventing your behavior from being excessively promiscuous (harmful for the chosen strategy) and to morally condemn and attempt to suppress the promiscuity of others, which *threatens the loyalty and commitment of your mate*. By association⁴⁶⁸, the practitioners of restricted sexuality can extend this condemnation of promiscuity to other behaviors they seldom perform.⁴⁶⁹

Another motivation for the wish to cause harm to sexual competitors, whether or not one has a regular partner, is to increase the value of the sex that one offers. As with other goods and services, and in animal groups⁴⁷⁰, sex in the human species is, to some extent, a service that is subject to the law of supply and demand, so that those who offer it are benefited if the supply falls and demand rises, and cannot be satisfied by alternative means. This, coupled with the fact that for biological reasons the sex offered by females is typically much more valuable than that offered by males, may lead to the suppression of some women's sexuality by other women, and may help to explain facts such as the aversion many women feel towards pornography and female prostitution. Several studies support this explanation.⁴⁷¹

⁴⁶⁷ The results obtained by Gladden *et al.* (2009) support the conclusion that reproductive strategy causes both religiousness and intensity of moral intuitions, and therefore the correlation between these results, at least in part, from having this cause in common.

⁴⁶⁸ In other words, because of mental association, or because different sexual behaviors tend to be practiced by the same people. Therefore, by suppressing harmless sexual behaviors, those who perform inconvenient sexual behaviors can also be damaged.

⁴⁶⁹ It can be hypothesized that there is another more general motive for trying to suppress the sexuality of others, whenever it can lead to pregnancies and the production of offspring. This is the fact that in the normal condition of limited resources, it is not only good for reproductive success to produce a large number of offspring, but also others to have few offspring. Although, to a certain degree, promoting a repressive sexual morality for others can affect one's own sexuality, moral hypocrisy makes it partially possible to preserve one's own conduct from the moral rules one tries to impose on others.

⁴⁷⁰ Noë and Hammerstein (1994), Gumert (2007).

⁴⁷¹ Robinson *et al.* (1991), Baumeister and Twenge (2002), Baumeister and Vohs (2004), Vaillancourt and Sharma (2011), Vohs *et al.* (2014).

Another example of strategic reasons contributing to moral blame, although outside the sexual arena, can be the blaming of meat or some kind of meat consumption, in many societies (for example, the Muslim and Jewish faiths prohibit eating pork, and the

(However, supply and demand cannot explain the reluctance of many people to tolerate homosexuality. From the point of view of supply and demand for mates, every heterosexual human being's interest is harmed by homosexuality of humans of the opposite sex, but is benefited by homosexuality of humans of the same sex. It follows, therefore, that for homophobic people this benefit should be less important than all of the reasons for censuring homosexuality, such as concerns about being misidentified as gay or lesbian⁴⁷² and an aversion to those who are "different.")

Finally, deciding that polygamy is immoral or illegal is something akin to government intervention in the market. By preventing the most valuable or attractive people from having more than one spouse, this intervention reduces the disparity in reproductive success between the most and the least successful individuals, favoring the latter at the expense of the former.

Based on this review of certain behaviors which, if you consider that immorality depends on harm, are strangely immoral, I believe it is possible to agree that the prediction has been fulfilled that, regardless of the particular combination of causes involved, any type of aggression that receives sufficient social support becomes moral aggression, which then is justified, often misleadingly, as punishment for harmful behavior. There are at least three major causes of violence that people often do not recognize as such, and much less as causes of "moral punishment": these are design errors, actual or potential competition, and shows of power.⁴⁷³ In the previous review I offered evidence of

Catholic faith rejects eating meat on Fridays during Lent). Among the various factors that may have contributed to this condemnation, it has been proposed that people with a greater influence in setting moral standards may have encouraged the taboos of meat consumption in order to monopolize this valuable resource (Fessler and Navarrete, 2003) (transgressing the taboo or just allocating it to another class of people).

⁴⁷² Concerns about being misidentified as gay or lesbian (which could decrease heterosexual people's chances of finding a romantic partner) seem to be a cause of derogation and moralization of homosexuality (Plant *et al.*, 2014). "Derogating members of a group is an effective way to indicate to others that one is not a member of that group." (Plant *et al.*, 2014, p. 635).

⁴⁷³ Nor is it usually accepted that strategic calculations are one of the motivations of moral punishment (except when aimed at deterring harmful behavior), although I have shown several cases in which this would seem to be the case.

the involvement of the first two causes in moral punishment, as we will see in a moment.

I can offer less evidence on the involvement of the third cause, perhaps because normally a show of power is a motivation that adds to others. However, it is not always a secondary motivation. It is thought that this was one of the main reasons for making human sacrifices⁴⁷⁴, and where they were normally practiced it can be assumed that they were considered to be a moral activity. For example, the human sacrifices of the Aztecs, together with other benefits⁴⁷⁵, served to demonstrate power (in some cases, by inviting the chiefs of tribes who had still not been subjugated to witness the sacrifices). Furthermore, this activity was an essential aspect of Aztec religious life.⁴⁷⁶ As previously mentioned, offering a demonstration of power could also be the main reason why a large number of Americans supported the invasion of Iraq after the terrorist attacks of the 11th of September, and there can also be attempts to disguise this type of aggression as a morally justified punishment.⁴⁷⁷ Moreover, in the case of legally imposed punishments, which can be seen as a more civilized version of morality, some authors claim that the demonstration of power is one of its reasons or purposes.⁴⁷⁸

I have shown in several of the experiments I have discussed (such as the one in which the subjects judged those who bet there would be a hurricane in the third world) how causing harm to one's competitors, or to "bad people", has been moralized. This can also be seen in condemning the glorification of terrorism and the denial of genocides, the consumption of certain drugs and, possibly, the activities that are characteristic of low-status people and some infrequent sexual behaviors. These behaviors are not punished, at least not principally, because of the damage they cause, which is often absent; but instead, because they have a diagnostic value: they provide an indication that those who practice them are a type of competitor towards whom violence should preferably be directed. Moreover, since the difference in the way of treating in-group and out-group members results from competition between groups, as discussed in

⁴⁷⁴ Gibbons (2012).

⁴⁷⁵ Other motivations were to provide food and to convince subjects of the need for war in order to obtain prisoners to sacrifice to the gods (González Torres, 2012).

⁴⁷⁶ Batalla Rosado and de Rojas (2008), González Torres (2012), López Austin and López Luján (2014)..

⁴⁷⁷ On 02/10/2003 President G.W. Bush stated: "If war is forced upon us... American troops will act in the honorable traditions of our military and in the highest moral traditions of our country" (Kalven, 2006).

⁴⁷⁸ Vidmar (2000), Barash and Lipton (2011).

chapters 4 and 5, then morally accepted violence against “the other” is a particularly important case of moralizing the damage to actual and potential competitors.

Finally, if they are sufficiently common in a society, design errors can be a cause of moral punishment too. These errors are involved, for example, in the blaming of different behaviors aimed at obtaining pleasure, specifically incest and adolescent sexuality.

Moral punishment is not the only relationship between morality and violence. Another relationship, possibly the one that people most usually remember, is that many types of violent behavior are immoral (and therefore punished). A third relationship is that many types of violent behavior are rewarded or even morally compulsory (i.e., failing to commit them is punished).

Rewarded or required violent behaviors include many of the moral punishment themselves and, as a general rule, behaviors qualified as punishment or as acts of self-defense, directed against “bad people” or delinquents of the group itself or against rival groups. An extreme case of obligation can be found in the case of war, where a person can be executed after being labeled as a deserter or traitor, for refusing to kill unknown people termed enemies of the country.

Sometimes rival groups whom it is good or even morally obligatory to attack are minorities that previously coexisted more or less peacefully with the majority. Ultimately, moral aggression is a socially supported aggression, although not necessarily supported by each individual in a group or community. So it is possible to morally attack a minority. It is to be expected that in times of abundance, or when it suits them, the majority are relatively tolerant of minorities, allowing them to belong to the same group, for example, to the same nationality to which the majorities belong.

But in times of scarce resources, i.e., excess population, and in times of humiliation or of receiving punishment (at the hands of other nations or groups) the less recognized types of violence, violence against competitors and displaced aggression, take on importance. So the majority put the blame on the minorities (for “stealing our jobs,” for example) and exercise their moral right to punish them. It is well known that some years ago, in a time of scarce resources and collective humiliation under the Treaty of Versailles, many Germans found guilty the Jews, Gypsies and homosexuals, among others; but not so much so that subsequent aggressions could be correctly classified as “moral”:

“The National Socialist society does not become immoral; nor is it true that the mass killings are dependent on a moral degeneration, as assumed in many cases. They are rather the result of the amazingly fast and profound establishment of a ‘Nazi morality’ which defines the people and the national community as a touchstone of moral action ... To mention here only one example of Nazi moral, National Socialism was the first regime that considered failing to provide assistance as an offence; however, the scope of the law was limited to the national community, and so, for example, it did not apply to cases of failing to help to a persecuted Jew.”⁴⁷⁹

“Although it may seem that a human catastrophe on the scale of the Holocaust should come by an evil that surpasses our understanding, what is most terrifying in the racist public culture in which the Final Solution was conceived is not what is exceptional in it, but what is ordinary; is not its runaway hatred but its high ideals.”⁴⁸⁰

In addition to punished and rewarded violent behaviors, there are many behaviors to which people are indifferent enough so as not to try to control them through punishment or rewards. These behaviors include, of course, the violence against animals, and many aggressions to human out-group members too. Some religions defend or defended that it is allowed, or at least less forbidden, to harm “non-believers,”⁴⁸¹ and this has also been the main attitude towards foreigners throughout History: “Killing those who are outside the social contract would not generally seem to be an offense: in most societies throughout History, foreigners have been legally hunted.”⁴⁸²

⁴⁷⁹ Neitzel and Welzer (2012, pp. 48-49).

⁴⁸⁰ Koonz (2005, p. 18).

⁴⁸¹ Hartung (1995).

⁴⁸² Daly and Wilson (2003, p. 294).

12 Morality: origins and usefulness for manipulation

The desire to dictate the conduct of others is an attribute of our species so eternal and universal that, regarding the probability of it being part of our biological inheritance, it must be placed at the same level as sex drive, maternal instinct and the desire to survive.

Frans de Waal

Being skeptical, or discouraged, is serious: but how are those who have strong beliefs, who are sure of themselves, of their homeland, of their blood, their nose, their faith, their money!

Eduardo Haro Tecglen

Here follow some examples of aggressions or punishments recorded by a certain researcher: an aggression on someone who, even though he did nothing, was physically next to an enemy, an aggression to whom had made a show of force (although without causing any harm), an aggression to one who failed to return a favor (on page 68 of this book I quote the words with which the researcher describes this event) and an aggression possibly due to the individual object of aggression having remained neutral in an earlier dispute instead of supporting the aggressor.⁴⁸³ Another case, also referred to in Chapter 6 (page 69-70 and footnote 227), is the aggression to one who failed to perform the due gestures of submission. All these cases of aggression—responses to behaviors that do not cause direct physical damage—are recounted by F. de Waal in his book “Chimpanzee Politics,” and are starring chimpanzees. The aggression to one who failed to return a favor is especially interesting because, as I explained, it involved an aggression on a stronger individual, and it is very likely that this aggression was socially supported.

In an essay on the origins of human morality, R. Wright proposes to consider the case of two academics working in the same field, one of which is writing an article in which he could quote the other, although the quote is not essential. The first could estimate, “perhaps if I quote him first, he will quote me later and thus we could start a pattern of mutual benefit.” Thus, a conscious strategic calculus can lead to a case of reciprocal altruism.

⁴⁸³ De Waal (1993, pp. 133-134, 155, 304-305 and 158, respectively).

But the same result can be achieved without involving any conscious strategic calculation whatsoever. The first academic could be a friend of the other and quote him just out of friendship, because he feels like it. The other does the same and thus establishes the same pattern of mutual quoting. An observer of the behavior cannot know which of the two processes led to the common result, and Wright explains this as follows:

“That the governing of emotions (or of “friendly feelings”) can lead to the same point as the governing of a strategic calculation is no coincidence. According to evolutionary psychology, natural selection “designed” human emotions to serve the strategic interests of the individuals of the human species (or, more precisely, to increase the proliferation of individual genes in the evolutionary environment, although in the case of the discussion in point, we can assume that the interests of the individual and of the individual’s genes do in fact coincide, as often occurs).

...This is the generic reason that often makes it difficult for an observer to tell whether a particular human behavior is guided by a strategic calculation or by the emotions: ‘because many emotions are substitutes of the strategic calculus’.⁴⁸⁴

Wright believes that the primatologist F. de Waal tends to give strategic or cognitive explanations rather than emotional explanations for the behaviors described in his book, “Chimpanzee politics,” behaviors which surprise us non-specialists for their likeness to human behaviors. Wright, however, prefers the emotional explanations of the conduct of non-human primates, in part, he says, because they encourage us

“to take a morally enriching view of human behavior. Being able to appreciate the fact that emotions can lead to a strategically sophisticated behavior in chimpanzees helps us appreciate the fact that it may be the case that we, as human beings, are more slave to being governed by emotions than we think. Specifically, I refer to the fact that our moral judgments are subtly and generally colored by an emotionally mediated self-interest.

...Because seeing how such subtle and powerful emotions can guide the behavior of chimpanzees can help us understand in what manner powerful and

⁴⁸⁴ Wright (2007, pp. 119-120).

subtle emotions can influence our own behavior, including behavior that we believe is a product of pure reason.

In other words, when we see that chimpanzees behave in a surprisingly human way, we can describe the parallelism in at least two different ways. On the one hand, we can say, “Wow, chimpanzees are even more impressive than I thought!,” a conclusion that we would arrive at especially if we consider that their behavior is guided cognitively. Or, on the other hand, we could say, “Wow, humans are not as special as I thought!,” a conclusion that we will reach if we see that a series of relatively simple, old emotions can produce seemingly sophisticated behaviors in chimpanzees and, presumably, in humans. This latter conclusion is not only valid but also enriching.”⁴⁸⁵

Psychologists are gradually abandoning the idea that reason, even when considered as conscious deliberation, is the leading cause of human decisions or behavior. As I explained in Chapter 1, we make decisions largely through unconscious calculations of pleasure and pain related to intuitions, emotions and feelings, and mental associations. “Moral” decisions (which behaviors, qualified as moral or immoral, to perform, and how to judge the morality of your own behaviors and those of others) are taken in the same way.⁴⁸⁶

Many studies show that there is a correlation between aversion (manifested in emotions such as anger and disgust) to yourself or another person carrying out

⁴⁸⁵ Wright (2007, pp. 126 and 129-130).

⁴⁸⁶ Haidt *et al.* (1993), Alicke (2000), Haidt (2001, 2007), Wheatley and Haidt (2005), Haidt and Bjorklund (2008), Baumard and Boyer (2013), Crockett (2013), Cushman (2013), Slovic *et al.* (2013).

According to the philosophers A. MacIntyre and B. Russell, Kant, the archetype of the “rational” philosopher, knew from the outset which moral conclusions he had to reach by reasoning: “Kant did not hesitate for a moment that it was the maxims he had learned from his virtuous parents which should be supported by rational proof” (MacIntyre, 2008, p. 65). “His main desires were two: he wanted to be sure of an invariable routine and to believe in the moral maxims he had learned in childhood... This comes from the premise that all moral rules that Kant was taught in childhood were true. (Such a premise, of course, needs a disguise; it is introduced into the philosophical society under the name of ‘categorical imperative’)” (Russell, 2003, pp. 99 and 101). The quote from Kant in footnote 453 may serve as an illustration of this.

a behavior, and your moral blaming of the behavior.⁴⁸⁷ The explanation for this correlation given by the traditional moralistic view is this: people observe that certain behaviors are harmful, for example “to society;” then, they decide they are immoral, i.e., it is convenient to disapprove and punish them, and then develop and promote an aversion to this behavior. This may be true in part⁴⁸⁸, but this perspective is also quite incomplete: in many cases there is no observable harm, and in many cases there is no observation. First, part of the aversion and moral blame cannot be derived from observing harm, for the simple reason that no harm is caused, even to interests, as I have shown in the preceding chapter. As stated in that chapter, the words “people observe that certain behaviors are harmful, for example ‘to society’ would more realistically be replaced by “people observe or estimate that aggressing those who perform certain behaviors is convenient.”

However, this is often not true; behaviors that should not be punished, can sometimes be mistakenly punished, examples of which are also contained in the previous chapter. Let us consider a new case, discussed by Kahneman, where the traditional explanation is totally unworkable. According to Kahneman, the psychologist P. Meehl and others have found algorithms that make fewer errors than the experts in their respective fields, such as those that make less incorrect diagnoses than doctors. However, there has been major opposition to using these algorithms. Kahneman says the following:

“Meehl and other proponents of the algorithms have argued strongly that it is unethical to rely on intuitive judgments for important decisions if an algorithm is available that will make fewer mistakes. Their rational argument is compelling, but it runs against a stubborn psychological reality: for most people, the cause of a mistake matters. The story of a child dying because an algorithm made a mistake is more poignant than the story of the same tragedy occurring as a result of human error, and the difference in emotional intensity is readily translated into a moral preference.”⁴⁸⁹

⁴⁸⁷ Haidt (2001, 2007), Cushman (2013), Miller and Cushman (2013), Miller *et al.* (2014).

⁴⁸⁸ For example, knowing that inhaling smoke is harmful to the health of non-smokers is one of the causes of the moralization and prohibition of smoking indoors in developed countries. Attempting to ban smoking in open places by claiming the same damage is caused is much more suspicious.

⁴⁸⁹ Kahneman (2012, p. 229).

According to the traditional explanation, observing damage should lead towards a moral preference for the algorithms, as they make fewer errors and therefore cause less damage; nevertheless, what actually usually occurs, according to Kahneman, is that emotions lead to the conclusion that it is immoral to use algorithms to make decisions.

Cases like this result from two conditions. The first, which is always given, is that causality also moves in an opposite direction to the traditional direction: aversion causes moral blame⁴⁹⁰ (which is why the moral standards that are in line with the most common aversions tend to be those that are the most widely created, transmitted and accepted⁴⁹¹). The second condition, which may be found in varying degrees, is that aversion is dysfunctional (wrong).

One of the reasons that aversions to immoral behavior may be dysfunctional is that such aversions are partly innate and genetic, and may persist due to evolutionary inertia.⁴⁹² This genetic influence is theoretically predictable (as I explained in Chapter 1) and is also supported by empirical evidence in the case of incest aversion.⁴⁹³ The genetic component of the aversion to immoral behaviors obviously cannot come from observation. What came instead of this observation was a natural selection that favored individuals experiencing

⁴⁹⁰ Miller *et al.* (2014). For example, in a study by Lieberman and Lobel (2012) sexual aversion toward people of the opposite sex with whom the subjects had been raised in a kibbutz led to the moral condemnation of sexual relations between kibbutz fellows, and not vice versa. If subjects are experimentally induced to feel disgust, their moral condemnation of behavior they are asked to judge increases (Wheatley and Haidt, 2005; Schnall *et al.*, 2008). (And, as mentioned above, inducing a good mood has the opposite effect: subjects who had just watched five minutes of a comedy show stated that certain behavior was more morally acceptable than those who had watched five minutes of a documentary [Valdesolo and DeSteno, 2006]).

⁴⁹¹ Fessler and Navarrete (2003), Nichols (2008), Sripada (2008).

⁴⁹² In other words, we react with negative emotions to behaviors similar to harmful behaviors for the reproductive success of our ancestors, but they may not be so today and, with all the more reason, may be harmless according to other criterion. One example of this, which I referred to in the previous chapter, is that many people continue to condemn incest practiced with two simultaneous contraception methods.

⁴⁹³ Lieberman *et al.* (2003), Fessler and Navarrete (2004), Lieberman and Lobel (2012). Lieberman *et al.* (2011) contest that certain results support the fact that opposition to incest has a (wholly) cultural origin. Fessler and Navarrete (2003) defend the view that the taboos on ingesting meat may stem from a certain aversion to meat favored by natural selection (since flesh, although it is usually a highly nutritional food, also is or was quite often a hazardous food due to its toxicity and possible transmission of illness).

negative emotions to behaviors which, whether they knew it or not, were inconvenient to their reproductive success. The fact that moral condemnation, to a large extent, derives from aversions which, innate or otherwise, are not derived from observation, explains the fact that many people who are sure that a given conduct is immoral are unable to explain why this is so.⁴⁹⁴

(Here, I rule out using the term “harm” to refer to psychological harm: otherwise, *any* action may be considered harmful, and then it could be said that the moral conviction and its associated violence are a response to the harm, something which in many cases would be the “psychological pain” that is typical of aversion. In some of the studies in which subjects have difficulty explaining why they consider certain behaviors to be immoral, some subjects argue that others suffer psychological harm. And even more imaginative solutions can be achieved. In a study where subjects were asked to evaluate the morality of various behaviors, which according to the authors of the study did not cause any harm, such as cleaning the bathroom with rags made from an old national flag, some participants who blamed some of the behaviors but found it difficult to explain why they did it, found solutions such as saying that harm had indeed been caused, which would be the regret they would feel later on. When asked if anyone was harmed by the behavior being evaluated, in some cases “subjects personified the flag and said that the flag was harmed.”⁴⁹⁵)

⁴⁹⁴ Haidt *et al.* (1993), Haidt and Hersh (2001), Wheatley and Haidt (2005), Cushman *et al.* (2006), Hauser *et al.* (2007).

⁴⁹⁵ Haidt *et al.* (1993, p. 618).

As psychological harm, unlike physical harm, depends entirely on the interpretation of the behavior that caused it, it can vary greatly at different times and in different societies. The following is a possible case of insolence (disrespect, a very common cause of psychological pain), included in a report by the British Consul Roger Casement after a journey through the Upper Congo in 1903 (Casement, 2010, p. 116) (“the white man of Mampoko” and “the Director” are the same person):

“One of his companions, who said he was called Bwamba, said two weeks earlier the white man of Mampoko had ordered him to serve as one of the bearers of his hammock, during a trip he planned to make inland. Bwamba was completing the construction of a new house, and used it as an excuse, instead offering one of his friends. In response to his excuse, the Director had burned his house, saying he was an insolent person. At home he kept a box of tissues and several ducks—all his possessions—which were destroyed in the fire. Then the white man ordered him to be tied up, took him inland, and only released him when it was his turn to carry the hammock.”

The fact that morality could have a genetic basis could also be expected on discovering that in some species there are obvious signs of something akin to human morality: collective or collectively supported violence towards individuals of the in-group has been observed at least in macaques, bonobos and chimpanzees.⁴⁹⁶ In these cases a correlation between aversion to a behavior, manifested as anger, and aggression can also be observed; these animals also express this aversion, although the language they use is obviously less sophisticated than our own.

It can be assumed, in view of the above, that the “precursors to the first moral judgments in the human species were probably grunts and coos communicating approval and disapproval.”⁴⁹⁷ Initially, these communicated the approval and disapproval of whoever was making these sounds, as in many other species. But, presumably, as violence and favors had to be socially accepted in order to be performed, then it became increasingly important to communicate *social* approval and disapproval. Furthermore, it is usually not convenient to express one’s disapproval if this expression does not have any consequences, as it is indicative of a lack of power. Therefore, people should moderate their expressions of personal disapproval and try to make them appear as expressions of general disapproval. This led to the current situation, in which moral judgments and expression of moral rules (“that behavior is bad,” “behaviors of the class x are bad,” etc.) are a compromise between what each person would like to disapprove and discourage, and what society usually disapproves and discourages.

Inasmuch as moral judgments and expression of moral rules are an indication of what society actually encourages or discourages with rewards and punishments, these expressions provide useful information that is convenient for listeners to take into account when making decisions. If the information contained in the moral judgments and rules is taken into account by listeners, these can be used to manipulate the behavior of the latter, by expressing or omitting them at one’s convenience, or expressing rules and judgments that are false to some extent (a simple and common example of this is that when a person wants to avoid a death, they can say “killing is a sin,” and only when they agree

⁴⁹⁶ De Waal (1997, p. 204; 2014, pp. 86-87 and 1993 respectively). And in an avian species a menacing collective behavior towards a fellow group member that had failed to fulfill its part of a collective task was observed, although there came to be no aggression (Boland *et al.*, 1997, p. 5).

⁴⁹⁷ Krebs (2005, p. 764).

on this death, add “except in self-defense.”)⁴⁹⁸ This is a typical trait of human morality: it can be used to manipulate.

Therefore, human morality not only has an important relationship with violence, but also with its justification, be it honest or deceptive. If one says, for example, “we aggressed him in order to punish immorality,” or “we aggressed him because we had the moral right to do so,” the aggressor is attempting to communicate to the audience that he/she has the general support for the aggression and, in this manner, seeks to improve the audience’s response to the aggression, which is the function of justification.

In modern societies, Law removed part of its traditional use from morality, since by determining which aggressions are legally permissible and which are not, it hindered the success of justifications such as “I aggressed that person because I had a moral right to do so.” But morality is still important, although not so much as in the past, because it can be used to justify laws and because punishment can be made and, needless to say, rewards can be given, in ways that do not involve violence or that involve low intensity or hidden violence, that legislation finds it hard to inhibit.

It is possible that in primitive societies, the most common form of punishment was ostracism.⁴⁹⁹ In principle, ostracism does not involve violence because it is a punishment that only deprives its victims of the benefits of cooperation that they had been enjoying; but often, especially in the most severe cases, ostracism can indirectly lead to violence, as an individual expelled from a community becomes an outsider. A form of ostracism is to describe a person as “immoral,” which expresses the notion that this person tends to have immoral behavior and deserves a general negative attitude. Being considered as immoral is harmful because this general negative attitude translates into a general favorable predisposition to punishment, and this, in turn, translates into an increase in punishments and reduced awards, all too often, even if it does not translate into any strong aggression forbidden by law.

Therefore, people do not merely want one’s conduct to be considered moral to reduce the likelihood of immediate punishment, but also to improve their moral reputation, which has long-term consequences. This is a second

⁴⁹⁸ The results obtained by Koleva *et al.* (2012) suggest that in the United States, the conservative ideology is positively correlated with the moral disapproval of abortion, but negatively correlated with the moral disapproval of the death penalty.

⁴⁹⁹ Baumard (2010).

distinctive feature of human morality: apart from some conducts being more moral than others, there are people who are more moral than others, and moral reputation is valuable. As far as moral reputation is valuable, it becomes a resource that is competed for: it can be expected that, generally, each individual tries to acquire and that friends acquire a reputation as being moral people, while attempting to ensure that others do the contrary.

Both this competition as well as some other reasons for moral behavior, can lead one to actually behave more morally, but also can lead to various forms of deception: one can strive to have a moral behavior only in public⁵⁰⁰, for example, or (self-)deceive as to what one has done in private⁵⁰¹, or to state misleading judgments and moral rules, or to manipulate the perception of the facts being judged.⁵⁰² Such delusions may be conscious but, as we saw in Chapter 9, they can also be unconscious, resulting from self-deception through, for example, motivated reasoning (reasoning—in the sense of reflection or argument—biased by the desire to reach a certain conclusion): “Most moral judgments are emotional, complex, and subjective—precisely the conditions under which the effects of motivated reasoning tend to be largest.”⁵⁰³

As we saw above, aversion often leads to moral condemnation, rather than the reverse. Similarly, often the desire for moral condemnation influences the “observation” of the facts, although the reverse may also be the case. Motivated reasoning leads to the fact that once it is decided who and to what extent the person is guilty and deserving of punishment, the facts are evaluated in a biased way in order to support the decision. According to several studies, people tend to see more intention⁵⁰⁴ and causal force⁵⁰⁵ in the same given act if the author is considered to be morally blamable, to overestimate the actual harm caused by the behavior if it is believed that it was intentional⁵⁰⁶, and to attribute greater or lesser probative value to the different evidence presented in a trial in order to make it more in keeping with the verdict decided.⁵⁰⁷

⁵⁰⁰ I cited in Chapter 4 several studies that prove the effect of publicity in altruism.

⁵⁰¹ Batson (2008).

⁵⁰² Russell’s words quoted in footnote 324 are an example of this.

⁵⁰³ Ames and Fiske (2013, p. 1755).

⁵⁰⁴ Knobe (2006), Inbar *et al.* (2009).

⁵⁰⁵ In other words, the more the person is to blame, the more it seems that his/her behavior has been the cause of a harmful result (Alicke, 1992; Knobe and Fraser, 2008).

⁵⁰⁶ Ames and Fiske (2013).

⁵⁰⁷ Simon *et al.* (2004), Hasel and Kassin (2009), Kassin *et al.* (2012).

Competition for moral reputation can lead to curious results. In a study, moral judgment was applied to two opposing alternative behaviors, in the same situation, involving pushing or not pushing a person, thus killing him, in order to save the lives of five others. 86% of subjects judged it immoral to push him, and 62% of those same subjects judged it immoral not to push him.⁵⁰⁸ This seems to indicate that many subjects are very motivated to make condemning moral judgments, and part of the motivation may be the defense of their own moral image, which comes out on top in comparison.⁵⁰⁹

Moral hypocrisy has been observed in various experiments.⁵¹⁰ No spectacular results are obtained here, but rather only moderate tendencies in judging the same behavior in one way or another, depending on who benefits or who carries them out. This is typical of most deceptions, no matter what type they are: credibility imposes limits. A good designer of a deceit cannot restrict himself to considering how much he could gain if the deception were successful; he should also consider what the probabilities of success and failure of the deceit are, and what the costs of failure are, e.g., the damage to credibility. Since credibility depends on the beliefs of others, the processes discussed in Chapter 10 tend to lead each society to have its own morality, within which one can have moral judgments that people from other groups or times considered unacceptable as patent truths. censure

I have mentioned several ways of manipulating moral reputation and manipulating behavior through morality. There is yet another, more sophisticated way: the deception that consists of making people believe that, regardless of the actual moral rules in either society, there are certain moral rules that everyone

⁵⁰⁸ Kurzban *et al.* (2012).

⁵⁰⁹ Alicke (2000), Monin (2007), Monit and Merrit (2011, pp. 172-174). According to the latter (p. 174): "Individuals grant morality to others only reluctantly and readily attribute moral hypocrisy, bad faith, and ulterior motives when they encounter putative moral behavior." It is likely that the proneness to make condemning moral judgments is another cause of the immoralization of minority behaviors.

⁵¹⁰ For example, Moore *et al.* (2008) found in their subjects a tendency to consider the same given behavior more acceptable if it benefited them than if it did not benefit them, and Valdesolo and DeSteno (2007, 2008) found that their subjects tended to censure a behavior more if others did it than if the same given behavior were followed by themselves. Moral hypocrisy also leads to less severe judgments for in-group than for out-group members (Valdesolo and DeSteno, 2007; Uhlmann *et al.*, 2009; Tarrant *et al.*, 2012).

“must” or “should” obey. Or, put another way, the deception that consists of making people believe that some moralities are objectively or rationally “better” than others (it is often not specified what they are better for, or the specification is obscure).

It would seem that most people, and even many philosophers, believe that there are moral truths, i.e., there are claims of the type of “Behavior x is bad (immoral)” that have truth value: they must be right or wrong, true or false; and not understanding them as if they meant “Our community has mostly a negative attitude toward behavior x,” but understanding them as: “Behavior x is intrinsically and therefore universally bad.” The cause could largely be the same reason why people believe they know the reasons for what they do, and, in general, why it is usually a good idea to be sure of what you say: the more certain you are, the more convincing you are, whether you are telling a truth or a lie, or something that can be neither a truth nor a lie.⁵¹¹

The belief cited in the preceding paragraph is so deeply rooted that those who do not profess it have often a difficult time trying to explain our disbelief. The philosopher P. Feyerabend attempts to do so in relation to an issue as polemical as fascism:

“The problem is the *relevance* of my attitude [in the face of fascism]: is it an inclination which I follow and welcome in others; or has it an ‘objective core’ that would enable me to combat fascism not just because *it does not please me*, but because *it is inherently evil*? And my answer is: we have an inclination – nothing more. The inclination, like every other inclination, is surrounded by lots of hot air and entire philosophical systems have been built on it. Some of these systems speak of objective qualities and of objective duties to maintain them. But my question is not how we speak but what content can be given to our verbiage. And all I can find when trying to identify some content are different systems asserting different sets of values with nothing but our inclination to decide between them. Now if inclination opposes inclination then in the end the stronger inclination wins, which means, today, and in the West: the bigger banks, the fatter books, the more determined educators, the bigger guns.”⁵¹²

⁵¹¹ Assertions that have no truth value would be of no use if they could only communicate what they say literally, i.e., their denotation. But they may be of use if they communicate something through their connotations.

⁵¹² Feyerabend (2002, p. 309).

Some philosophers think that moral relativism (the belief that there are no moral truths) is a problem, and study how to fight it, apparently with the aim of being able to assure that fascism, among others, is intrinsically and objectively wrong. They may wish to do so because this would facilitate the fight against fascism, as this fight would be more justified, and the justification for the actions improves the response to such actions. However, note that the putative problem is only a problem for those who are in a position to aggress, not for those in a position to be aggressed. For example, during the Nazi regime in Germany, its ideologues may have also considered moral relativism a problem, as it could have hindered people's acceptance of the "moral truths" they advocated and intended to establish.

I have argued that the desire people feel to be certain of their moral truths derives from the fact that certainty helps them to convince others, which in turn helps them to promote the behaviors that are most convenient for them, whether violent or otherwise. This certainty has another effect: if you are sure that the violence you are sympathetic to is (morally) justified, and, therefore, you will not be punished for it, you will have fewer qualms about carrying it out. These are two of the reasons why moral truths can be dangerous. Another is that, as a result of the importance people usually attribute to them, moral truths often become hallmarks. Therefore, questioning those truths can undermine certain motives for violence. According to the biologist and Nobel Laureate F. Jacob:

"Because it is not only the interest which makes men kill each other. It is also dogmatism. There is nothing as dangerous as the certainty of being in possession of the truth. There is nothing that causes so much destruction as the obsession for a truth considered absolute. All the great crimes of history are the result of some fanaticism. All the massacres have been perpetrated in the name of virtue, of the true religion, the legitimate nationalism, the ideal policy, the fair ideology; in short, in the name of the fight against the truth of the others, the fight against Satan... You can blame some scientists for the vehemence with which they sometimes defend their ideas. But still no genocide has been perpetrated to impose any scientific theory. At the end of the 20th century, everyone should be clear that there is no system that can explain the world in all its aspects and in all its details. Having contributed to demolish the idea of an intangible and eternal truth may not be the smallest of the titles of glory of scientific management."⁵¹³

⁵¹³ Jacob (1999, p. 14).

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Note: *PNAS* stands for *Proceedings of the National Academy of Sciences of the United States of America*.

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