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Criminology, History of Philosophy, and Discrete Mathematical Model of the Formal Axiology Related to Criminal Activity (Were the Outstanding Philosophers Authentic Criminals?)¹

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Abstract. In this article, the history of philosophy is examined from the perspective of empirical criminology and the philosophy of crime. The biographies of notable philosophers reveal surprising insights. A criminological analysis of the history of philosophy shows that many respected philosophers faced suspicion, investigation, and prosecution;

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some were arrested, deprived of their freedom, imprisoned, or sent to exile. Some great philosophers were sentenced to capital punishment; others escaped from jail and emigrated. While some prominent philosophers managed to avoid these fates, many operated covertly, using pseudonyms and providing misinformation concerning their publishers and publishing locations. Nevertheless, some were ultimately detected and classified as “wanted” by law enforcement and secret church services. This article gathers, condenses, and connects these facts for the first time in academic literature, linking them to an abstract theoretical discussion on the metaphysics of crime. A philosophical perspective on crime is developed, suggesting that legal norms represent the stability of society, while crime embodies its mutability. The conditions of future life are not predetermined; thus, for long-term survival, society should maintain a limited subsystem of potential criminals at every stage of its development. Such a subsystem is essential for adequate adaptation to uncertain future conditions. However, in addition to this subsystem representing change (i.e., development through adaptation to new life conditions), society must also have a subsystem embodying non-change (stability) and self-preservation. These subsystems are mutually restrictive and complement the oppositional dynamics that characterize a developing society. This article also introduces a discrete mathematical model that represents the formal axiological aspect of crime for the first time in the global academic discourse on criminology. According to this model, *crime*, *empirical knowledge*, and other phenomena are conceptualized as evaluation functions determined by two evaluative variables within the framework of algebra of formal axiology.

Keywords: criminology; history-of-philosophy; crime; value; discrete mathematical model; formal axiology; criminal activity

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Let us begin this research with its empirical foundation, which involves a comparative analysis of different facts from the history of philosophy and the history of crime. Below you can find an incomplete, but fairly representative list of individuals who were related to both *philosophy* and *crime*.

Anaxagoras (from Clazomenae) was brought to trial and accused of impiety for not practicing the religion and teaching that the Sun is a hot body and that the Moon is similar to the Earth. He was convicted and sentenced to imprisonment. While in prison, he dispelled the sorrow of confinement with mathematical reflections. After being released from prison, he fled from Athens (Russell 2003: 101, 116).

Aristarchus of Samothrace: “Cleanthes, it is said in one place by Plutarch, ‘thought it was the duty of the Greeks to accuse Aristarchus of Samothrace of impiety for bringing the Hearth of the Universe (i.e., the Earth) into motion...’” (Russell 2003: 275, 276, 320).

Aspasia was subjected to judicial persecution for impiety and for maintaining a brothel, but was acquitted (Russell 2003: 116).

Xenophanes (from Colophon): “At the age of twenty-five, he was *forced* (italics. – V. L.) to leave his homeland, and since then he lived the life of a wanderer” (Makovelsky 1915: 182-184). After being exiled from his homeland, he lived in

Sicily and later moved to Elea. Throughout his long life, Xenophanes continuously changed his place of residence. He was characterized by skepticism, irony, parody, sarcasm, and a general critique of accepted views (Makovelsky 1915: 182-184). "His mockery targets 'all the sacred principles of the Hellenic worldview.' He attacks Greek religion, mythology, and art, as well as popular ideals and morality, rejecting divination and opposing polytheism, anthropomorphism, and nationalism among the Gods. He also criticizes the Olympic Games and the cult of physical strength and beauty. His ridicule is directed not only at old traditions but equally at innovations in morals..." (Makovelsky 1915: 183). This critical attitude was likely the reason for his wanderings. "It seems he was sold into slavery (and later redeemed) by the Pythagoreans Parmeniskos and Orestes, as reported by Favorinus in the first book of his *Memoirs*" (Makovelsky 1915: 193).

Zeno of Elea was suspected of conspiracy with the Pythagorean aristocrats against the tyrant, he was under investigation; he did not live to stand trial because he perished during torture in the course of the investigation (Makovelsky 1915: 74-76).

Protagoras (the Sophist) litigated against a student who did not pay for his education; according to traditions, he faced legal prosecution for impiety (Russell 2003: 117).

Socrates (the opponent of Sophists) was convicted of impiety (disbelief in the Gods and corrupting the youth) and sentenced to death. He refused a planned escape arranged by his friends and was executed.

Antiphon (the Sophist, an opponent of Socrates, forerunner of anarchism) incited outrage among his fellow citizens and relatives by associating with slaves, by working, studying crafts, and refusing to marry a woman chosen for him by his father. Defying his father's wishes, he married a slave woman out of love and freed her. He criticized the institution of slavery, emancipated his slaves, and as a result of his conflict with his family (specifically his father, who disowned him), he was brought to trial in Athens. He was deprived of his inheritance and civil rights, including the right to serve in the military and participate in public assemblies. To earn a living, he started charging for his teaching, which led to the contempt of those around him. For dangerous anti-social speeches that undermined the foundations of slavery system, he was sentenced to life imprisonment. While in prison, he engaged in mathematics and philosophy, receiving visits from Eudoxus and Plato (Lurie 2009: 4).

Plato was punished with imprisonment for having attempted to implement his political ideals in Syracuse, later was sold into slavery (Skirbekk, Gilje 2001: 86).

Aristotle faced conviction for impiety due to disbelief and collaboration with the Macedonian occupiers, but fled to avoid his punishment (Russell 2003: 214).

Diogenes was convicted and sentenced for counterfeiting. He was deprived of citizenship, and led an idle, homeless life, full of begging and disruptive behavior.

Seneca was exiled to Corsica by Emperor Claudius and later accused by Emperor Nero of conspiracy to commit a *coup d'état* and seize power. The court, showing mercy, allowed Seneca to take his own life (Russell 2003: 323, 324).

Cicero M.T. actively fought for republican freedom, boldly opposing Antony, the triumvir. In 43 B.C., assassins sent by Antony killed the orator (Dera-tani et al. 1959: 6).

Augustine of Hippo was an ideological outcast in his youth, committing thefts without mitigating circumstances and seeking to fulfill his sexual desires through criminal means, as he admitted in his *Confessions*.

Hypatia of Alexandria faced persecution from the fanatical Bishop Cyril of Alexandria for “studies in mathematics and magic”; she was slandered and accused of inciting disturbances. In 415, a group of fanatical Egyptian Christians (supporters of Bishop Cyril) attacked Hypatia; they stripped her, killed, dismembered her body, and then burned the remains of this Neoplatonic philosopher, mathematician, and astrologer.

Boethius was arrested, imprisoned, accused of conspiracy to commit a *coup d'état* and assassinate King Theodoric. He was convicted and then executed (Russell 2003: 447).

John S. Eriugena’s book *Treatise on Divine Predestination* was condemned twice by church councils (in 855 at the Synod of Ballon for the first time and in 859 at the Synod of Langres for the second time), but the author himself happened to escape punishment due to the support of the king (Russell 2003: 484).

Roscelin of Compiegne was accused of heresy by the Reims Council, but he recanted his views for fear of being stoned to death. Later he fled to England, where he came into conflict with St. Anselm and then fled to Rome (Russell 2003: 522).

Peter Abelard was condemned for sexual impropriety with Héloïse, castrated, and sent to a monastery. He was also condemned at the Councils of Soissons and Sens for his unorthodox views (Russell 2003: 523).

Roger Bacon was put under supervision since he was suspected of heresy and magic; his works were banned from publication, and he faced condemnation of his writings, then exile, and imprisonment (Russell 2003: 556-557).

William of Ockham was summoned by the Pope to Avignon, where he was accused of heresy, condemned, and excommunicated. Later he fled from Avignon, seeking refuge with Emperor Ludwig (Russell 2003: 562).

Niccolò Machiavelli was arrested for political reasons; however, he was acquitted, but barred from political activity (he was granted permission to live in seclusion for the rest of his life) (Russell 2003: 603).

Francis Bacon was convicted of large-scale corruption, pardoned by the king, but nonetheless removed from political life (he was allowed to live in seclusion for the rest of his days).

Michel de Montaigne was put under suspicion from both the Huguenots and the Catholics. Montaigne recalled, “I was beset by troubles that, in times of public disorder, fall to the lot of moderate individuals. I was oppressed from all sides: the Ghibellines considered me a Guelph, the Guelphs a Ghibelline”. He was arrested by the League and imprisoned in the Bastille. He was released from prison at the request of Queen Mother Catherine de Medici (Montaigne 1979: 330).

Thomas More was accused of treason for refusing to accept the King as the head of the Church of England, sentenced to death, and executed. However, some believe that his refusal was merely a part of a broader issue, since his position in the government hindered the King's plans, inciting the King's displeasure and wrath.

Giordano Bruno hid in England for some time, which was then "a safe haven for the exiles" (Bruno 1999: 4-5). In Italy, 1600, after seven years of imprisonment, he was burned at the stake by order of the Holy Inquisition (Bruno 1999: 5). In 1603, "all of Bruno's works were listed in the Index of Forbidden Books; his name was being erased everywhere it was found, and those sympathetic to him, living in accordance with his thoughts, were careful not to mention him, so as not to arouse suspicion and persecution from the all-powerful Inquisition" (Bruno 1999: 5).

Galileo Galilei faced multiple convictions (including secret ones), and he was finally condemned, publicly repented, officially mend his way, but was informally registered as a *dangerous recidivist*.

Hugo Grotius was sentenced to life imprisonment in 1618 based on religious-political accusations, but managed to escape (in a book chest!) to France, where the King Louis XIII took him under his wing (Skirbekk, Gilje 2001: 293).

René Descartes was suspected of being an atheist and heretic due to his views regarding the rotation of the Earth and the infinity of the universe; he emigrated to Holland and faced persecution from the Roman Church and Protestant fanatics (Russell 2003: 664, 665).

Baruch Spinoza was condemned for religious reasons, faced excommunication, isolation, harassment, and even an assassination attempt.

Thomas Hobbes was under investigation due to he was suspected of atheism. He had to emigrate multiple times for political reasons (Russell 2003: 652).

John Toland participated in an armed rebellion when he was young, which resulted into conviction; however, later he was pardoned. He was criticizing religion and the Church, his work *Christianity Not Mysteriorious* was condemned and publicly burned. To avoid imprisonment, Toland had to emigrate.

Pierre Bayle's repeated apostasy, which violated the laws of France at the time, made his stay in France impossible. He fled from persecution to Switzerland, but later returned to France since he started experience financial difficulties. Again, he fled from persecution, this time to Holland, where he published *Various Thoughts on the Occasion of a Comet* in 1680. This book was banned in France. Bayle's pamphlet *General Criticism of M. Maimbourg's History of Calvinism* was publicly burned by the executioner in Paris at the Place de Grève. Several of his works were banned in France, prompting him to publish anonymously. In Holland, his critiques of all positive religions and his defense of atheism led to his removal from a chair in Rotterdam and a ban on even private teaching. He was officially recognized as a "dangerous heretic" (in France, Spain, or Italy at that period, he would have been publicly burned at the stake). After the publication of Bayle's *Dictionary* in 1697, ecclesiastical persecutions intensified. He was accused before the consistory, which demanded corrections in his

texts. He promised to make changes but altered almost nothing in new editions. Convinced of his atheism, enraged theologians demanded that the secular authorities take the harshest measures against Bayle, namely, burn him at the stake and, only as a last resort, imprison him. Nevertheless, Bayle died, denying his enemies of the pleasure to witness his suffering.

Isaac Newton faced legal issues regarding copyright.

Gottfried Wilhelm Leibniz faced legal issues regarding copyright as well.

Voltaire (François-Marie Arouet) was imprisoned twice in the Bastille and emigrated from France on two occasions. During his lifetime, many of his works were published under fictitious names, notably under the pseudonym *Voltaire*. “However, when a perceptive reader guessed the style of Voltaire in the narrative, or the ever-watchful police stumbled upon the true author’s trail, he defended himself with comical sincerity: ‘I did not write *Zadig*, I would never have written it, I am as innocent as a dove’. The police were exhausted trying to find the author. It is interesting to note a letter from the Geneva Attorney General to the police chief after the publication of Voltaire’s story *Candide*: ‘I ask you not to waste time, and if you find witnesses willing to testify against the authors and distributors, notify me so that I can interrogate them’” (Voltaire 1960: 331).

Jean-Baptiste Robinet left the Jesuit order and emigrated from France to Holland on political reasons; anonymously published his subversive work *De la Nature* in Holland and participated in the Great French Revolution (Robinet 1936).

Julien Offray de La Mettrie provoked outrage among French theologians, physicians, and royal authorities with his *Treatise on the Soul* and a satirical treatise directed against the abuses, ignorance, and presumptuousness of doctors. Both of these treatises were burned by court order. They were published anonymously, but the investigation progressed to the point that La Mettrie was forced to emigrate to Holland, where in 1747 (also anonymously) he published his another treatise named *Man a Machine*, which was also burned by the executioner (by order of the Leiden magistrate). In 1748, Prussian King Frederick II granted La Mettrie political asylum, membership in the Academy of Sciences, and the position of court physician, allowing him to publish his works without restriction. However, a conflict arose with the royal court, which pressured La Mettrie to play the role of a court jester. The official version of the philosopher’s death was that he happened to “overindulge in pâté”; according to his own statements, he was poisoned. The circumstances of La Mettrie’s death were never investigated. A reasonable hypothesis exists that his death was a highly professional murder, performed by members of the Jesuit order.

Paul-Henri Thiry d'Holbach anonymously published his book *The System of Nature, or On the Laws of the Physical and Moral World* (also called the *Bible of Materialism* by his contemporaries). He was condemned by the Paris parliament and ordered to be burned along with his atheistic works (all of which were included in the Index of Forbidden Books, and the author himself was wanted). D'Holbach escaped arrest as his authorship was not established during the investigation; his books were published under pseudonyms with false places of

publication. Thanks to meticulous secrecy, Paul-Henri D'Holbach managed to avoid imprisonment and potential execution.

Denis Diderot: "On July 7, 1746, by order of the Paris parliament, Diderot's 'poisonous' book was condemned to be burned as scandalous and contrary to religion and morality... full of the most criminal and absurd opinions that the depraved human mind is capable of... equating all religions and leading to the denial of any" (Antiseri, Reale 2002: 631).

Jean le Rond d'Alembert, together with Diderot, published the *Encyclopédie*, which provoked a sharply negative reaction from the Jesuits and the authorities in France. "...Bishop Mirépeua and the Dauphin's tutor demanded the intervention of the king, and on January 7, 1752, a decree was issued prohibiting the first two volumes... an organized reactionary campaign of persecution and threats forced d'Alembert to halt the publication" (Antiseri, Reale 2002: 617).

Claude-Adrien Helvétius' philosophical writings were condemned by the Faculty of Theology at the Sorbonne, Pope Clement XIII, and the Paris Parliament; the texts were ordered to be burned, and the author had to renounce them twice.

Jean-Jacques Rousseau experienced vagrancy and was engaged in a kind of petty male prostitution, relying on women for support (when one woman ran out of money, Rousseau would move on to another). He used to leave people in helpless situations, was engaged in deceit (Russell 2003: 807), apostatized multiple times (Russell 2003: 809), committed theft, and bore false witness against a woman, taking pleasure in her punishment despite her innocence. In his *Confessions*, Rousseau admitted to his involvement in deliberate deceit and "banditry" (Russell 2003: 806). Voltaire considered Rousseau as "a malevolent madman" (Russell 2003: 810). His books *Emile* and *The Social Contract* triggered a storm of official condemnation. Rousseau was forced to flee France; Geneva and Bern denied him asylum. The peasants of Motiers, led by their pastor, accused Rousseau of murder (poisoning) and sought to kill him. He fled to England, seeking refuge with David Hume. However, Rousseau soon began to suffer from paranoia, suspecting Hume of plotting against his life, and "escaped" back to Paris (Russell 2003: 811).

Marquis de Sade (Donatien Alphonse François de Sad) experienced multiple convictions and was repeatedly sentenced to prison, including time in the Bastille. As a participant in the French Revolution, he served as a member of the revolutionary tribunal, where he saved many individuals from the guillotine. However, he was ultimately sentenced to death for a lack of sadism, a sentence that was not carried out due to the chaos of revolutionary France. In total, the Marquis spent approximately 35 years in various detention facilities. During Napoleon's rule, he was sentenced to life imprisonment in a psychiatric hospital based on a police-fabricated diagnosis of "libertine idiocy" (Babenko 2003).

Guillaume-Thomas Raynal renounced his priesthood after studying at a Jesuit college. Raynal collaborated with Diderot on the *Encyclopédie* and was vocal in his criticism of absolute monarchy, feudalism, the Catholic Church, and colonialism. He advocated for materialism and atheism and explored revolutionary practices in England, the Netherlands, and North America. His

work *Philosophical and Political History of the Institutions and Trade of Europeans in both Indias* was condemned by the French Parliament and ordered to be burned in 1781. Although he was subject to arrest, Raynal managed to escape from France and traveled to various countries, including Russia. He participated in the French Revolution but ultimately condemned the Jacobins and their actions.

Alexander N. Radishchev, being influenced by Reynal, brought the spirit of the French Revolution to Russia and criticized the main class-political institutions of the country. Radishchev was arrested and sentenced to death, which was commuted to exile (Radishchev 1952: 9-11).

Pavel Y. Chaadaev was declared “insane” and forbidden “from publishing anything henceforth” (Evgrafov et al. 1968: 261).

Arthur Schopenhauer was convicted for inflicting bodily harm on a woman and sentenced to a lifetime of compensation payments.

Alexander I. Herzen vowed to avenge the executed Decembrists and embraced socialist free-thinking. His life included arrest, multiple exiles, a secret marriage to his beloved, political agitation against serfdom through printing means, involvement in the *Polish affair*, and ultimately emigration.

Mikhail A. Bakunin emigrated after being repeatedly convicted, sentenced to death, and imprisoned (Kornilov 1925: 4).

Pyotr A. Kropotkin was convicted and held in solitary confinement in the Peter and Paul Fortress, managed to escape, and subsequently emigrated (Kropotkin 1906; Kropotkin 1926).

Fyodor M. Dostoevsky was convicted and spent time in penal servitude in Siberia (Kropotkin 1906).

Friedrich Nietzsche: for information regarding his criminological status, see (Lobovikov 2008; Lobovikov 2009).

Leo N. Tolstoy was convicted by a church court, excommunicated from the church, and subjected to anathema. His relatives petitioned for justification or clemency multiple times. These petitions were considered but ultimately rejected by the ecclesiastical court.

Bertrand Russell was repeatedly convicted and imprisoned (Russell 2003: 9-10).

Ludwig Wittgenstein was accused of abusing schoolchildren, he fled and was placed on a wanted list. He later surrendered to the authorities and underwent trial and investigation, during which he was subjected to psychiatric evaluation. He was effectively acquitted (Rudnev 2002: 123-125), although there were suspicions that his case was “swept under the carpet” by interested parties.

Alan Turing was accused of homosexuality, he was convicted and sentenced to imprisonment or forced treatment. During the course of the forced treatment for homosexuality, he fell into depression and, according to one version, committed suicide.

Moritz Schlick was accused by fascists of spiritual degeneration, political inadequacy, disbelief in higher values, as well as having an ideologically harmful (i.e. corrupting) influence on the student youth. He was shot by a student at the University of Vienna. The initial (i.e. official) version claimed

that the student was mentally unstable and motivated by jealousy, resulting in a leniency in the student's punishment due to extenuating circumstances. However, there is another version: Schlick was secretly sentenced to death by fascists and his contract murder was organized; and "the student" (i.e. a fascist), carrying out a party order, executed the sentence.

Gustav Radbruch was politically removed from his teaching position and deprived of the opportunity to publish his works during the Nazi regime in Germany.

Giovanni Gentile was accused by anti-fascists of complicity in the crimes of the fascist government of Italy, he was secretly sentenced to death by communist partisans and killed by students.

Martin Heidegger was accused by anti-fascists of complying in spiritual values of Nazi Germany; he was investigated after World War II for collaborating with the Hitlerite fascists. However, the case was closed due to the minor nature of the offenses and mitigating evidence.

Gerhard Gentzen was accused by anti-fascists of complying in spiritual values of Nazi Germany, he was investigated after World War II for collaborating with the Hitlerite fascists. He was convicted for his cooperation with the Nazis, manifested in agreeing to teach mathematics at university during the Nazi regime, imprisoned, and died in prison.

Nikolay O. Lossky was expelled from the seventh grade of the gymnasium for "propagating atheism and socialism"; traveled abroad without any passport and enrolled as a free listener at the University of Bern; studied in Switzerland and Algeria; graduated from Saint Petersburg University; awarded a Doctor of Philosophy degree and became a professor of philosophy in Saint Petersburg. In 1922, he was arrested and exiled from Soviet Russia on the so-called *philosophers' ship* as an ideologically hostile person, embodying the philosophical worldview of the class enemy of the *proletariat*. This alternative was proposed by Vladimir Lenin in lieu of imposing the death penalty on those actively opposed to the Soviet regime. The exiled individuals were required to sign an agreement pledging not to return to Soviet Russia under the threat of death.

Nikolay A. Berdyaev was imprisoned four times (arrested twice before the Revolution and twice after). In 1897, he was detained for participating in student disturbances, expelled from the university, and subsequently exiled to Vologda; in 1913, he was sentenced to life exile in Siberia for writing an anti-clerical article. In 1922, he was arrested and exiled from Soviet Russia on the *philosophers' ship* as an ideologically hostile person, bearing a philosophical worldview of the class enemy of the *proletariat*, a philosophical worldview representative of the class enemy of the *proletariat*.

Gustav G. Shpet was expelled from the university due to his revolutionary activities before 1917. He endured multiple searches, arrests, exile from Kyiv, and significant restrictions on his academic and pedagogical work (Shpet 1989: 3-4). Following the revolution, in 1927, he fell under ideological scrutiny and was accused of establishing a "citadel of idealism". As a consequence, he was prohibited from engaging in scientific activities and publications. In 1935, G. Shpet was arrested and subjected to an investigation during which he was accused

of participating in the editing of the first volume of a German-Russian dictionary, published under the supervision of individuals sympathetic to fascist Germany. Additionally, he faced accusations of maintaining ties with counter-revolutionaries. Although G. Shpet rejected these allegations, he was nonetheless sentenced to five years of exile in Siberia. In 1937, he was arrested again and, by the *NKVD troika*, was sentenced to “10 years of imprisonment without the right to correspond”, effectively amounting to an undisclosed death sentence. In 1956, the Tomsk Regional Court terminated the criminal case against Shpet due to insufficient evidence of a crime (Shpet 1989: 6-7).

Alexander A. Zinoviyev publicly opposed *Stalinism*, which led to his expulsion from the institute, followed by his arrest and interrogation. He subsequently escaped and was placed on a wanted list, spending an extended period in hiding, during which he “got lost in the turmoil of war”. After the war, he emerged as a dissident and became the author of anti-Soviet literature before being exiled from the USSR.

The list of philosophers who have faced criminal convictions (those arrested, suspected, wanted, undergoing trial or investigation), as well as those subjected to interrogations, psychiatric evaluations, repressions, imprisonment, or restrictions on their creative activities, is not exhaustive but representative. This overview presents an opportunity to articulate a plausible *hypothesis*. However, one cannot claim its truth based solely on the incomplete induction presented through *mere enumeration*. Nevertheless, attention can be drawn to the relevance of investigating the mentioned hypothesis. The history of philosophy and knowledge, in general, indicates that knowledge often advances (transforms in quality) through violation of the norms (transgression of customs) within the socio-cultural environment in which it occurs. Culture, as a system of norms (customs) governing activities, ensures stability and continuity within society: under *unchanging conditions*, it provides a natural right to suppress deviant behavior (and particularly deviant thinking). However, the future of a society is not absolutely predetermined; the conditions for societal existence tend to change.

The instinct for humanity’s self-preservation throughout its prolonged history necessitates society to adapt to the uncertainties of the future. At each stage of its development, there should exist – in genesis or anabiosis – sub-systems of activity capable of *awakening as soon as required*; and becoming the norm (custom) in an unexpectedly transformed situation. The socio-cultural framework of the future is shaped by deviations from the norms (transgressions of customs) that take place in the present. The subjects of these prospective deviations and violations are viewed as criminals by the majority of their contemporaries but are seen as heroes by future generations. In light of this hypothesis, it is evident that *creativity and criminality are inherently linked*: the psychology of creativity and the psychology of crime seem to be *closely related phenomena*.

From a psychological perspective, a scientist’s ability to make a monumental scientific breakthrough signifies his (or her) capacity to commit a sub-

stantial crime against the socio-cultural norms of their time. Achieving this feat is exceedingly challenging for numerous reasons, particularly psychological ones. Few individuals are willing to take this risk, fully aware of the potential consequences. Moreover, not all the parents which are happy with their child's "genius" grasp the implications of their child's being *actually genius*. Parents in this situation would certainly benefit from reading the work by Lombroso (Lombroso 1882). The characteristics of *genius* – are often difficult to clearly distinguish from those of criminality or insanity – should this issue of *genius* concern you regarding your child? Noteworthy, throughout history, difficulties in separating *signs of criminality* from *signs of madness* have been skillfully exploited by authorities. Depending on the socio-cultural framework, it has sometimes been more convenient to label a criminal as insane (as was the case for certain brilliant thinkers, such as Pavel Chaadaev or Marquis de Sade), or to classify an insane as a criminal. For instance, at their time, ecclesiastical courts condemned a significant number of mentally ill individuals to be burned at the stake as witches.

To mention *insanity* as a promising (and the most convenient at times) label for any brilliant philosopher is particularly significant in terms of positivist criticism of philosophy as *metaphysics*. One of the most extreme versions of positivism, which in general grasps philosophy only as metaphysics, sees philosophy as nothing more than a severe *mental disease* akin to schizophrenia. Within this perspective, the philosopher is defined as psychologically inadequate. However, this is not a *fault* of theirs; rather a *misfortune*. The philosopher should not be criticized but treated. Nevertheless, the boundary between mental normality and pathology is neither absolute nor fixed. It is always vague and evolves, allowing humanity to adapt to an uncertain future. Another version of positivism claims that metaphysics constitutes a violation (*a transgression*) of the language norms, i.e. the positivism sees metaphysics as *a poor syntax*. That is why engaging in traditional metaphysical philosophy is viewed as a certain form of linguistic misconduct, with *the speech acts* of metaphysicians seen as violations of grammatical norms and rules.

Following the previous discussion regarding the *metaphysics of criminality* and *criminality of metaphysics*, it is essential to highlight a very important detail. Within the two-valued algebraic system of natural law, the moral-legal-value functions: 1) "(whose) *y's crime against* (what, whom) *x*"; 2) "(whose) *y's cognition of* (what, whom) *x*" are *formally-axiologically equivalent* (Lobovikov 2008; Lobovikov 2009; Lobovikov 2010). To illustrate this equivalence clearly, we will define the relevant moral-legal-value functions by means of the table presented below. In this table, symbol "g" stands for "good", and "b" stands for "bad".

Table. Two-Placed Moral-legal-Value-Functions

In this table, the symbol *Oxy* denotes the moral-legal-value function "(whose) *y's observation of* (what) *x*". The symbol *Exy* represents the moral-legal-value function "*experiment by* (whom) *y on* (what) *x*". The symbol *Sxy* stands for

x	y	Oxy	Exy	Sxy	Kxy	Pxy	Fxy	Mxy	Txy	Dxy	Vxy	Cxy
g	g	b	b	b	b	b	b	b	b	b	b	b
g	b	b	b	b	b	b	b	b	b	b	b	b
b	g	g	g	g	g	g	g	g	g	g	g	g
b	b	b	b	b	b	b	b	b	b	b	b	b

“y’s sensorial perception of (what, whom) x”. *Kxy* signifies “y’s experience-knowledge, or empirical cognition of (what, whom) x”. The symbol *Pxy* refers to “y’s power (authority) over x”. *Fxy* indicates “y’s influence on (what, whom) x”. *Mxy* represents “y’s measurement (that is, comparison with the measure) of (what) x”. *Txy* denotes “y’s transformation of (what, whom) x”. *Dxy* signifies “y’s destruction, annihilation of (what, whom) x”. *Vxy* stands for “y’s violence over x”. *Cxy* denotes “y’s crime against (what, whom) x”. The domain of permissible values for the moral-legal-value variables x and y is the set {g (good), b (bad)}. This set also serves as the domain for variations in the values of the moral-legal-evaluation-functions under investigation. The relationship of *formal-axiological equivalence* between the moral-legal-evaluation-functions λ and β is denoted in the two-valued algebra of natural law by the symbol “ $\lambda=+=\beta$ ” and is defined as follows: $\lambda=+=\beta$ if and only if λ and β take the same moral-legal values from {g (good), b (bad)} for any possible combination of moral-legal values of the moral-legal-evaluation-variables.

From the definitions provided, it follows that there is a formal-axiological equivalence of all value functions defined in the table presented above, in particular, $Kxy=+=Cxy$. The apparent paradox of this non-trivial formal-ethical equivalence (and some other equations derived from the table) is successfully neutralized through systematic application of a general fundamental principle strictly prohibiting formal logic derivations: (1) from statements of being to either normative or evaluative judgements; (2) from either normative or evaluative judgements to statements of being. This fundamental prohibition principle is a substantial generalization of the radical formal-axiological interpretation of the idea highlighted by Hume in a significant particular case conditionally termed “*Hume’s Guillotine*”. By means of the artificial language of two-valued algebra of natural law, an exact formulation of the fundamental prohibition principle significantly generalizing “*Hume’s Guillotine*” is given in that algebra.

Given the limited scope of this article, the reader should be directed to works where *the Hume’s Guillotine* is precisely articulated and thoroughly explained through specific examples (Lobovikov 2009; Lobovikov 2011d). Possible objections to the proposed formal-axiological approach to crime, based on emphasizing the evident relativity of moral and legal evaluations, their fluidity (variability), and dependence on the context of time, place, and the evaluating subject, have been extensively addressed in the author’s previous works (Lobovikov 2014a; Lobovikov 2014b). These works demonstrate that the universal laws of the algebra of formal ethics and natural law serve as absolute laws within the relativity of moral and legal evaluations, remaining unaffected by any changes in the evaluating subject. Due to volume constraints,

this article cannot delve into this topic in detail; therefore, it will now provide precise references to research that investigates relativity of evaluations comprehensively.

This article draws a particular attention to the formal-axiological equation $Kxy = \pm Cxy$. This equation establishes the structural-functional equivalence of *empirical knowledge* and *crime*, precisely defining the specific relationship and conditions under which such identification is not only possible but also necessary (Lobovikov 2001a; Lobovikov 2001b; Lobovikov 2008; Lobovikov 2009). It is essential to note that if the indicated equation is accepted, it naturally explains the prohibition against partaking of the fruits from *the tree of knowledge* in the *Book of Genesis* (Lobovikov 2001b; Lobovikov 2011a; Lobovikov 2011b; Lobovikov 2011c). If any *empirical knowledge* constitutes a wrongdoing (i.e. *crime*), then the prohibition of knowledge is entirely reasonable; otherwise, the ban is irrational.

The assumption of the formal equivalence between *empirical knowledge* and *crime* also naturally accounts for numerous historical instances of the persecution of natural philosophers (i.e. *criminals*) by the Church in the Middle Ages. Moreover, historical evidence indicates that such persecution of natural philosophers (as *criminals*) occurred not only during the Middle Ages and not solely by the Church, but also by other religious organizations and even law enforcement agencies in countries where the official ideology was strong *scientific atheism*.

According to the table, which precisely defines the *one-placed* moral-legal-evaluation function “*empirical knowledge* of (what, whom) x ” within the two-valued algebra of natural law, “knowledge of good is evil”, while “knowledge of evil is good” (Lobovikov 2001a; Lobovikov 2001b; Lobovikov 2011a; Lobovikov 2011b; Lobovikov 2011c). Accepting this definition naturally explains why strict criminal liability for espionage exists in most developed legal systems. From an epistemological perspective, espionage is nothing more than *cognition*. Why is *cognition* (in the case of espionage) considered as a *crime* (and a serious one), representing a form of treason to one's homeland? In the algebra of natural law, which serves as a theory of the relativity of moral-legal evaluations (Lobovikov 2014a; Lobovikov 2014b), the answer to this question is derived simply and naturally by introducing a *variable* Σ , called “moral-legal evaluator”, or “reference system”, which is an either individual or collective subject (person) making evaluations, where this role is played by some (any) subject (individual or collective – it does not matter).

If the reference system (moral-legal evaluator) is fixed, i.e. if a constant subject Σ is substituted in for *the variable* Σ , then all moral-legal evaluations of actions become quite determinate. If, from the perspective of Σ , a certain activity z is deemed *good*, then from the same evaluator Σ 's perspective, the *empirical cognition* of (what) z is considered a *bad thing* (evil), which can become the object of positive legal prohibition and systematic influence from the relevant enforcement agencies. It is precisely in this and only in this specific case that *knowledge* may be deemed a crime (termed espionage, equated with betrayal) from the viewpoint of *the reference system* Σ .

If society aims to sustain an optimal number of brilliant scientists – who by default possess a criminal psychology – for its progressive development and actively cultivate their talents, it must establish two mutually restraining systems: 1) a system that protects the current cultural context of society from brilliant scientists (a striking example of such a system is the Inquisition); 2) a system that protects brilliant scientists, who represent society's only hope for adapting to the future, from the first system, which is capable of destroying them. Those who believe in and demand faith in the ultimate victory over crime and do everything in their power to achieve this represent the aforementioned first system. Meanwhile, those who admire the “genius” of a child or the audacity of a teenager, who cultivate creativity (schools for gifted children), entrepreneurship (*business incubators*, innovative universities), are unknowingly developing the metaphysical foundations of crime – the objective possibility and subjective ability to violate norms (customs) of activity.

If we assume that crime has been permanently eradicated in a particular society, i.e. no-one in this society can violate any norms (customs) of activity – then, in response to a significant alteration in the external environment, this society will inevitably perish. The ability of a society to remain flexible and adaptable requires the existence of crime², as well as dissent. The continuous generation of *heresies* (deviations from norms) in philosophy and science³ serves as a social analog to the variability found in living nature, while culture acts as an analog to heredity, ensuring stability and continuity. However, the opposition between culture and crime is not absolute; these discussed opposites tend to interpenetrate. In particular, a *culture of crime* certainly exists as a system of norms governing behavior and thinking “according to the code of criminals”. There are also violations (crimes) against the norms of this *criminal culture*. If we accept this perspective, an intriguing question arises: which outstanding philosophers, as criminals, thought and lived “*in accordance to the code of criminals*” and which of them went off-limits? This question is interesting both from a historical-philosophical perspective and from a criminological standpoint. However, a thorough study of this issue is the task for another research project.

¹ The necessity of *crime* in any statistically normal healthy society was first explicitly pointed out by the French sociologist Durkheim (Durkheim 1952; Durkheim 1982). His original concept of the social utility of certain deviations and limited criminality has had, and continues to have, a significant impact on theoretical criminology: (Cotterrell 1999; DiCristina 2004; DiCristina 2006). In the 20th century, many scholars worked fruitfully within the tradition established by Durkheim; a notable example is (Erikson 2005). The detrimental effects of the complete effectiveness of the law on society are convincingly demonstrated in the monographs and articles of English and American criminologists: (Becker 1963; Cohen 1966; Cohen 1974; Lippens 2010; Moynihan 1993; Seagle 1952; Waldron 1981).

² The necessity and social value of *deviant creative thinking* in science (and sometimes even the limited criminality of its prominent representatives) is convincingly demonstrated by Kuhn (Kuhn 2001); Feyerabend (Feyerabend 2007); Lakatos (Kuhn 2001); and Popper (Kuhn 2001). Moreover, in political science and political philosophy, not just in theoretical criminology (the philosophy of crime) or methodology and philosophy of science, Martyanov (Martyanov 2009) arrives at similar conclusions.

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