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**REVIEW**

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# FEMALE CRIME AND PRISON TREATMENT

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## Abstract

Female crime and incarceration have only relatively recently become the subject of study and research. Modern societies have been-and still are-the natural space for social and normative change in favor of freedoms and, above all, the emancipation of women: controlled procreation, the decriminalization of abortion, divorce and the repeal of the crime of female adultery represent only a few examples of the achievements already made. Despite the increased visibility of "gender" issues, we have not equally witnessed, in the prison sphere, the achievement of as many appreciable changes: the male sex still remains the protagonist of the reality and the prison and crime scene. In other words, crime, and thus the prison, are still male domains and where women are an exception. The presence of women in correctional institutions is, therefore, usually analyzed in comparison with the preponderant male component. The fact that there are fewer women prisoners than men tends to suggest that the male condition is considered the norm, reproducing women's social subalternity in life and family. Perhaps also due to the small percentage of women prisoners, there is an obvious difficulty in devising organizational arrangements and rehabilitative offerings suitable for capturing and enhancing the specificity of the female prisoner population and related issues, such as that of "children in tow." It follows that many of the specific problems, which are related to women's detention, have been, probably poorly observed and evaluated.

**Keywords:** female crime, detention, female deviances, social control, society

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## 1.1 The first studies on female crime

The last century saw the beginning of the first studies on female delinquency—a new, unexplored field that had been deliberately overlooked, as having little or no bearing on crime statistics, and for a long time. Lombroso and Ferrero's treatise (1923) titled "The Female Delinquent, the Prostitute and the Normal Woman," opens a new theoretical debate about the biological and physiological constitution of woman (female) compared to man (male), with obvious repercussions on the criminal potential of illegal actions and conduct. Although the two theorists, based on previous studies on the subject of "atavism," are determined in arguing that all antisocial or criminal elements in a society represent the result of biological regressions to an earlier evolutionary stage of human development and that the signs of degeneration and atavism are purely physical, (the shape and size of the skull), assert that the female criminals considered do not turn out to respond to the theoretical model of atavism and that very few women correspond to the criminal type that the two scholars identified as criminal-born (who must exhibit four or more signs of degeneration). This helps to explain first of all why true criminals are rarely found among the female population and to reinforce the theoretical model of the lesser "human-female" evolution in terms of deviant behavior. This theoretical model is linked to the belief, therefore, that women, having departed less from their "primitive origins," exhibit a low

Also of interest:

- a) the analysis on female criminogenesis, which originates from feelings of revenge and cruelty, characteristics rarely found in the male delinquent;
- b) the lack of passionate purpose: women are rarely driven by raptus or act under the influence of violent suggestions. Women prepare and premeditate the crime and transfer components such as coldness, calculation, and reflection into the action;
- c) the complication of the crime plan: in men, the crime represents a goal with a clear criteriological matrix; in women, scrupulous analysis seems to stand out more;
- d) simulation and dissimulation: these are a necessary consequence of the slavery and oppression to which women have been condemned for centuries. This condition has determined in the field of delinquency a particular simulant psychology on the part of women (Ferri (1928) . In an attempt to classify female delinquency, the types identified by Lombroso and Ferrero are: the criminals-born, the offenders of opportunity, the prostitutes, and the passion offenders, in which prostitutes constitute the true delinquents, comparable to male criminals. Lombroso points out that prostitution is configured as the highest form of female degeneracy and that women who are born criminals represent the exception of the female gender. The cause of prostitution: "is not to be found in her lust, but in her moral insanity" (Lombroso and Ferrero, 1923) and in more specific causes such as subjection to stronger subjects, the disadvantaged family environment, the high education that society begins to grant women, but which, in a bizarre contradiction, does not then allow them to employ in the professions or offices, to earn a living (Lombroso and Ferrero, 1923) . According to Smart (1981), the adoption of determinism, both





biological and psychological, has literally put the possibility of self-determination out of play, scientifically legitimizing both material restrictions and the introduction of new technologies of social control, generating "the possibility of exercising more efficient control over any deviant behavior" from a predetermined set of norms at the expense of real change in existential conditions. This gives rise to the "pathological" labeling of those who commit crimes or deviance, deeming them recipients of care and treatment. Rubin (1974) defines the male-female relationship system as a sex-gender system, that is, a system in which the biological datum asymmetrically defines that the male dimension ranks higher than the female dimension.

## **1.2. The "criminal woman" in the post-Lombrosian vision**

With Thomas's (1923) work, "The unadjusted girl," there is a radical change in the view of the "delinquent woman," who in the Author's theoretical vision becomes such because concrete social problems exist and it is necessary, likewise, to identify new methodologies of treatment and cure. Biological abnormality of Lombrosian origin - in Thomas's vision - now seems to give way to what the Author defines as "socially induced pathology." According to this approach, deviance and criminality are the result of a failure or partial socialization of such individuals, who display a maladjustment to the values of society and its associates (nonconformity), a sign of disease rather than congenital badness. Thomas' (1923) analysis, while not totally abandoning the biological strand, focuses, therefore, on the importance of psycho-social relations. Female deviance in the author's view is sexual in nature, and sex represents the primary "factor" for the fulfillment of "recognition and security" components. Again, in Thomas' (1923) view, the woman is considered biologically, socially and psychologically "less evolved" and always seeking recognition, especially social recognition. The prostitute, in his vision, is a woman in search of love who, however, uses socially unacceptable means. Thomas (1923) concludes his analysis of female criminality by arguing that the latter is the result of changing cultural values, emancipation, the possibility of contracting marriage outside the ethnic group to which one belongs, and physical placement in subordinate strata of society where anti-legal and anti-social cultures lurk. Pollak's (1977) study "The criminality of women" reveals the influence of sociology, psychology and psychoanalysis on criminology and has the merit of introducing the problem of social representation of female criminality. In the study in question, the author points out that women's criminality has been a neglected area of research and still oriented mainly to its quantitative dimension and the apparent lack of

proportion between male and female offenders. Most have focused on the analysis of statistical data, on official crime statistics, from which emerges a significant numerical difference to which different interpretations have been given: some argue that there is a difference with respect to "conformity-deviance" related to sex, implicitly stating that women who commit crimes somehow betray their femininity, entering, therefore, a purely masculine. With Cowie et al's (1968) study "Delinquency in girls," the positivist tradition that considers female criminality as an expression of pathology, which can be eliminated by referring to causes, is, on the one hand, renewed; on the other hand, a new phase of research is begun to identify indicators and variables aimed at distinguishing between normal and delinquent girls. For Cowie et al (1968) these are constitutional elements predisposing to delinquency, but they do not take into account the social processes that can produce characteristics such as these among members of specific social groups: for example, poorer segments of the population may be inadequately fed, have poor medical care, or experience a deprived childhood characterized by the lack of parental presence. Socio-environmental factors in this study play an insignificant role compared to physiological and psychological criteria. Although they claim to have uncovered disruptive socio-environmental factors in at least half of the biographies of the girls examined, they do not believe that such factors had much importance in the predisposition of those girls to become delinquents. The biological difference between the sexes is the most significant cause of the difference in the nature and frequency of crimes committed by the two sexes. Girls, therefore, become delinquents when they are biologically abnormal or when minor physical abnormality is combined with exceptionally stressful environmental factors. Konopka (1966) in the essay "The adolescent girl in conflict," the result of the author's study and analysis of private and personal conversations with young delinquents interned in institutions and numerous reports by social workers, describes the miseries and loneliness of girls. The girls' transgression, including, likewise, sexual promiscuity, is the result of a lack of individual integration, marked, above all, by neglect by the family environment, which translates into a real need for love: loneliness, fear, distrust of adults, and low self-esteem are the factors that lead to a sense of isolation and despair, without which it is difficult for a woman to delinquent.

### **1.3. Sociological approaches to the phenomenon of "female crime"**

The pivotal concept in sociological approaches to the study of female deviance is that of gender roles, i.e., those patterns that include behaviors duties, responsibilities and expectations related to female and male status, the object of social expectations and strongly conditioned by the absolutization of biological differences. Central becomes the concept of "socialization," as it is fundamental in the acquisition of gender roles and in the etiological explanations related to deviance, interpreted as a defect of socialization, especially familial (Parsons, 1973) , as masculinization of female conduct for proponents of role theory since the 1970s, as adaptation (Cohen, 1955) or still in the analysis of social control. Gijjs (2006) argues that dominant pedagogical models have taught girls to



consider the roles of wife and mother as natural, and educational models characterized by greater restriction of freedom and the transmission of values such as marriage and motherhood, effectively distancing women from risky situations. Added to these is a socialization model based on the control and protection of girls, seen as individuals who must be protected and safeguarded first of all by the family of origin and then by the husband: "the socialization and social control model sanctions the subaltern role of woman, confirms the ideology on the passivity by setting the limits of her freedom." Bishop (1931) in "Women and Crime" highlights the link between emancipation and female crime at a time when English society was being shaken by profound changes including the right to vote for all women of age. The increase in crimes committed by women in England is seen as a direct consequence of the spread of the women's emancipation movement, which promoted not only the right to vote but also women's work (previously precluded), active presence in society and the choice to prostitute themselves. For Parsons (1973), deviance is the manifestation of poor socialization to social roles and manifests itself differently in males and females. For males, deviance is often generated in the transition from the family environment to the social environment, a time when different cultural patterns clash: while in the family environment the maternal role prevails, in the social environment typically masculine behaviors and roles are demanded. However, the cultural and psychological conflict that is generated is crucial in preventing identification with the female figure, and juvenile delinquency can be considered a form of "male protest." In contrast, in adolescent girls, the social environment requires identification with the female figure, and antisociality consists of not adhering to the socially accepted ideal of femininity, such as through prostitution. Sutherland, Cressey and Luckenbill (1992), in their work "Principles of criminology," attempt to explain the reduced incidence of female criminality on the basis of the social status of women: the latter, excluded from social life, work and other social contacts, would not, according to this theoretical approach, be subjected to external influences as, on the other hand, regularly happens in men. Similarly, Hoffman Bustamante (1973) stresses in the essay titled "The nature of female criminality" the role of the different socialization of boys and girls, in view of the fact that girls are labeled as passive, homely, more controlled and recipients of more rigid discipline, while their peers enjoy greater freedom, are encouraged to be aggressive, ambitious and eager to succeed, and are pushed to conform to the rules, but are also often rewarded if they step outside the conventional canons. The latest sociological approach to deviance that focuses on socialization is the

one developed, in the wake of Merton's (1966) theories, by Cohen (1987). Building on Durkheim's (1893) concept of anomie, Merton (1966) analyzes the impact on crime of structural inequalities related to social class of membership. As is well known, in American culture, it is the culturally defined goals (wealth and success) and the legitimate means of achieving them (work or study) in their interactions that potentially generate the conditions of conformity but also of anomie, of breaking rules and laws. Merton (1966) acknowledges the existence of social classes and inequality among them, but does not consider structural inequalities related to gender. In fact, success is declined differently for men and women, and the appropriate means to achieve it are very different. While for men success is basically to be understood as economic, for women it is rather understood as achieving a good social position by acquiring, through marriage, that of the husband. On the other hand, as some have pointed out recently, aspiring to success in the macho sense involves women experiencing a conflict between their aspirations and social expectations. Fear of being judged unfeminine, of being rejected by men, and of creating conflict between work and family has often led to what Morris (1987) calls fear of success, as fear of success because of the consequences it entails, including the abandonment of one's aspirations and adjustment to goals that are easily attainable through the means at one's disposal. Cohen (1955) approaches the problem of juvenile delinquency in 1950s American society from the belief that every society differs within itself into numerous subgroups, each with its own typical way of thinking and acting, its own culture. The culture of a group is acquired only by interaction with those who already share and embody in thought and action that particular cultural pattern. So it is with the delinquent subculture, delinquency is not an expression or explication of one personality type; on the contrary, it can be imposed on any type if circumstances favor an intimate association with delinquent patterns (Cohen, 1955). Stealing and other property crimes, vandalism, and causing serious disturbances are generally male performances; moreover, the group or gang, that is, the vehicle of the delinquent subculture is one of its markers that best lends itself to statistical elaboration, is "a gang of boys" (Cohen, 1981). Being part of a gang offers little opportunity for girls, "if, however, delinquent girls also have their own subculture, it is different from the one we have described." The author, first of all, makes a difference between male and female deviance: in the former he glimpses versatile profiles, in the latter, on the other hand, a specialized profile of a sexual nature prevails, which often results in situations easily liable to degenerate into "overt sexuality" (Cohen, 1981). Women's deviance is linked, in its theoretical conception, with the factor of "social change" and "role theory," which lose the connotation of staticity and become the subject of modifications and changes; from this perspective, women's roles in which new opportunities, including criminal ones, prevail have also changed. Moreover, the quantitative increase in female crime is likely to be accompanied by a significant number of crimes committed by women and girls, which are increasingly masculine and violent. Adler (1975) in his study "Sisters in crime" points out an important correlation between the growth of female crime and emancipation leading to substantial equality between men



and women, resulting in a masculinization of women and the overcoming of the concept of female passivity. According to Morris (1987) the women's movement produced changes more than in women's crime in the perception of women in women themselves: "Women are certainly more involved in crime...I believe the explanation for this lies not with the women's movement, but with the challenges to the social order which it was seen to represent."(Morris,1987) . Marotta (1987) , rejecting the common approach of evaluating the phenomenon only in terms of statistical comparison with crime, asks: a) whether the condition of women has achieved actual or only apparent improvements; b) whether these changes have affected women's crime or its manifestations. The answer lies in the distinction between role and social position, and argues that while the former has remained essentially unchanged (the culture of our society recognizes in women's roles her specific function in the family sphere and with regard to the opposite sex), the social position of women, her status, consists of the set of freedoms and prerogatives that have been granted to her and that place her in the social and labor spheres in the same, or nearly the same, position as men. Naffine, (1997) analyzes Becker's theory, who on the subject of deviant behavior argues in his study of cannabis-smoking jazz musicians that there is nothing deviant or criminal in their behavior and, siding with these outsiders, develops his theory of labeling. Chesney-Lynd (2004) proposes an interesting study of adolescent girls' deviant behavior, identifying violent behavior and participation in gangs as a response to poverty and social marginalization. The gang as a group generates security and a sense of belonging for adolescent girls, it often becomes the site for their exploitation and increased involvement in violence and crime. In addition to poverty, it is the physical and sexual abuse they suffered in childhood and their victimization that is the starting point for survival strategies (running away from home, substance use, prostitution) that are defined as crimes, often by their own family members or those who acted violence on them, and bring them closer to paths of institutionalization of crime; girls are often victims of multiple marginalization of gender, race, class that positions them on the economic periphery of society, and the labeling functions as an indicator and reinforcement of patriarchal society as survival strategies are labeled as crimes and/or sexualized and girls are criminalized. Balloni (1977) states that women's thinking still moves between claiming equality and valuing differences, and that many theories, even on emancipation, assume that the male model is the one to which one must conform anyway, even if it turns out to be possible to study female criminality and deviance outside the comparison between the male and female sexes.

#### **1.4. Social control and female criminality**

The term social control appears in the late 1800s as a synonym for social defense, understood as the right of society to defend itself against criminals. Several lines of interpretation then developed. In a first declination of this concept, social control encompasses all phenomena and processes that help regulate human behavior by establishing relationships between multiple subjects with a view to maintaining the social order, which includes: morality, law, education, and so on, that is, all the elements that define culture and contribute to social interaction. In a second definition, social control includes all the ways and means by which people influence each other from the direct influence of one group on its members or one subject on another. Finally, a third definition considers the essence of social control in the reaction to deviant behavior. In this meaning, social control exists insofar as there is a deviant act and includes "the set of formal and informal, coercive and persuasive reactions that are envisaged and/or enacted against individual and collective behavior that is deemed deviant and directed toward establishing and maintaining social order in that unit" (Cesareo, 1974). Female specificity from the perspective of social control is not distinguished from socialization, so much so that in the case of women, socialization and social control are often considered two indistinguishable processes (Ambroset, 1984). Parsons (1965) defined socialization as the set of mechanisms by which agent subjects acquire the orientations necessary for the performance of their roles in the social system, while the mechanisms of social control are involved in the balance between the generation of motivations opposed to the reestablishment of the stabilized process of interaction.

According to Ambroset (1984), in the case of women there is always a role considered natural, which is that of mother. Inevitably, the process of socialization ends up coinciding with a process of social control. The author basically identifies two stages: a) the first is closely related to the definition of social control, which is, however, unrelated to women's deviant behavior, and this is because of the social definitions; b) the labeling stage in the process of social control, which is initiated both in the case of the infraction of a legal norm and a custom or social norm. At this stage the role of women deviating emerges, as a prerogative, in daily life and social control is made explicit not only in identifying the behavior and defining it as such, but also in identifying the possible reaction. We can distinguish four types of reaction: 1) evaluative, consisting of what the members of the group believe should happen to those who perform a certain act. In this case women have always been more rigid and severe especially if the deviance is implemented by other women; 2) legal, operated through the enforcement of laws by those officially vested with this responsibility and in this area women have long been excluded; 3) expectant, which concerns popular beliefs regarding what will really happen; and 4) implementation of the identified measure by the formal and informal agencies deputized to do so: for women, the main measure was institutionalization with a rehabilitative perspective, viewing them not as culprits but as sick, and who, if subjected to appropriate treatment, will be led to



recovery. Smart (1981), argues that in most women's correctional institutions, the methods applied end up reinforcing the traditional and stereotypical roles of women in our culture. Female inmates have the opportunity to learn to sew, cook and perform other household chores with the goal of reducing recidivism. In this way, criminological theories of female deviance can serve to legitimize the guidelines of the criminal justice system by providing scientific justifications for the treatment of deviant women as individual cases of illness, as irrational, irresponsible and largely unintentional behavior, resulting in a kind of individual maladjustment in an orderly consensus society. The second measure was the process of medicalization of female deviance, in keeping with all the theories that see the female delinquent as less conscious than the male in delinquent behavior. Social control and female specificity had already been the focus of studies on adolescent girls since the 1960s in which they highlighted how most female inmates were incarcerated for "the big five: running away from home, incorrigibility, sexual offenses, probation violation and truancy" (Vedder & Sommerville, 1973) .

### **1.5 The characters of women's imprisonment**

The type of crimes committed by women is usually the result of a course of social and family marginality that affects, often, the reiteration of anti-legal conduct and opens the prison doors wide for short and repeated stays . Narcotics violations and property crimes are often the reason for sentencing for the vast majority of female inmates. The tasks of "reeducation" of inmates are delegated to the complex activities of treatment, which, according to the Ordinance, must be individualized and must respond to the particular needs of each subject's personality (Art. 13). For the treatment phase it is stipulated that: "an expert in observation and treatment shall conduct an interview with the prisoner or interne upon his or her entry into the Institute, to ascertain whether he or she can cope adequately with the state of restriction." The result of this assessment shall be communicated to the practitioners in charge of appropriate interventions for individual cases and to the group of observation and treatment practitioners referred to in Article 29. In the case of a drug addict, a report is sent to the Drug Addiction Service operating in the Institute. It should be pointed out, however, that women's incarceration is usually marked by short sentences, unless one is in the presence of convictions for mafia-type criminal association or very serious crimes . Statistics also show, as well, that there are generally objective difficulties in employing female inmates in jobs that do not involve the performance of tasks within the institution (cleaning, cooking, or other activities), and this

is due to the lack of space within the facilities where laboratories can be built for the organization of work. Fortunately, over the years, the idleness and inactivity of women prisoners has been filled in many women's prisons with the performance of workshop activities in crafts, cosmetics, theater, school training courses, which allow women prisoners to "overcome" the prison experience, through the stimulation of personal resources, (empowerment). Recent research shows a positive relationship between access to work and attendance at preparatory courses, which are much higher for final female prisoners than for those still awaiting trial. Of course, the prison, in addition to having a restrictive character of personal freedom, centers contacts with the outside world (Art. 15 of the Penitentiary Ordinance), both with regard to contacts with members of one's own family and with people outside the family, taking into account that interviews with people other than relatives and cohabitants are authorized only when specific or reasonable grounds exist. With regard to the granting of premium leave for the purpose of cultivating "affective, cultural or work interests," reference is made to regular intra-muratory conduct within the correctional institution, together with the declaration of the absence of social dangerousness. Statistics show that the rate of granting and relative enjoyment of furloughs is linked to a long period of detention, while concrete difficulties emerge in obtaining furloughs from female prisoners who have been serving their sentences for at least three years. Alternative measures to detention, such as probation to the social service (Art. 47 ord. pen.) or semi-freedom (Art. 48 ord. pen.) are granted in the presence of clear and precise guarantees and security about the existence of a family ready to receive the inmate. The main condition for obtaining semi-freedom (granted to give the possibility of participating in work, educational or otherwise useful activities for social reintegration) concerns the real possibility of working outside prison walls. In addition, for drug-addicted female inmates there is the possibility of obtaining therapeutic foster care, for no more than two times. Among the types of crimes that lead women to cross the threshold of prison, the entry "prostitution" also emerges, which, although the status of prostitute is not indictable, concerns satellite crimes related to this condition, such as injury, outrage, resistance to a public official, violation of the traffic ticket, fights, obscene acts, and so on; these crimes are generally attributed to African or Eastern European female immigrants. Roma women, on the other hand, are often convicted of vagrancy offenses. Although the condition of marginalization experienced in society is a common feature of the majority of both the male and female detainee population, the lack of both the "violence" and "social dangerousness" elements emerges for women. The female inmate population is usually sentenced to less than 3 years of imprisonment, which would confirm the belief that the prison is considered "a purely male institution," taking into account, also, that female inmates have always represented a small percentage compared to the entire inmate population (about 4 percent). In fact, women, especially in the past, have often been interned in Institutions of various kinds such as convents, reformatories, psychiatric hospitals and, more frequently than men, for improper "anti-legal conduct". Despite a gradual secularization of women's prisons, the treatment of women prisoners still suffers





from the influence of gender stereotypes, and re-education risks being translated into an adaptation to social and behavioral models recognized as inherent to the female role. This type of female prisoner is subject overall to a lower offer of work, education, training, as well as a total disregard for what is inherent in women's lives, and in particular: health, affectivity, sexuality, motherhood. Women's detention remains, therefore, a marginal issue, not only for those involved in studying prison dynamics, but also for governments and prison administrations in Italy and the rest of Europe. Even in Italy, despite intervening laws, particularly Finocchiaro Law No. 40/2001 and most recently Law No. 62/2011, the requirements for access to alternative measures are complex, resulting in the presence of children imprisoned together with their mothers. Women in prison suffer not only from the deprivation of freedom but primarily from the deprivation of affection, as do families on the outside and especially minor children. The findings from studies on women's imprisonment should serve as a basis for lawmakers to create a system that is, if not "woman centered," at least "child centered" . Recent research has shown that during detention women exhibit particular psychological pictures related to their personalities, the experience they are going through, and their sensitivities; they suffer from separation from their families, loss of affectivity, and distance from their children; they experience increased guilt toward society and deep frustration (especially for long sentences) should their children be adopted by other families . Altra categoria di donne recluse riguarda le “tossicodipendenti”, che sono la maggior parte delle detenute; queste scontano pene detentive abbastanza brevi e nella maggior parte dei casi sono recidive. La presenza di poche Sezioni femminili nelle carceri, costringe il trasferimento delle detenute (soprattutto straniere) in luoghi ben più lontani con evidenti difficoltà di incontro per la famiglia di origine. La “detenuta tossicodipendente”, specialmente con figli al seguito, presenta maggiori problematiche ai fini dell’accesso ad una Comunità di recupero e ciò in ragione dell’accudimento dei figli . Per le “detenute straniere”, si riscontra comunemente il problema della lingua, della emarginazione e della povertà ante-carcere, la presenza in casa di molti figli, e, nonostante la presenza di una famiglia numerosa, risulta quasi impossibile fruire di colloqui perché i parenti sono quasi sempre molto lontani. Si tratta, pertanto, rispetto alle detenute autoctone, di una ulteriore penalizzazione in termini di contatti e di scivolamento verso la solitudine. Il problema della conoscenza della lingua, impedisce alle detenute straniere di effettuare chiamate dal carcere, in quanto l’Istituzione non è in grado di controllare le conversazioni. A tale problema si è cercato, ma solo di recente, di ovviare impiegando interpreti per le lingue ufficiali, mentre per i dialetti il

problema è destinato a rimanere irrisolto. Le donne straniere hanno, inoltre, molte più difficoltà ad accedere al lavoro all'esterno rispetto alle donne italiane e, quindi, meno possibilità di avere una occupazione futura . Per quanto riguarda le nomadi, emergono ulteriori problematiche: per ragioni culturali, infatti, queste donne appaiono poco inclini ad accettare aiuti che potrebbero, sia pure in minima parte, modificare il loro approccio culturale ai sistemi di educazione adottati. Le donne che entrano in carcere, siano queste madri o meno, subiscono numerosi fattori di stress che influiscono sulle loro percezioni e sensazioni . La “spersonalizzazione” è una delle conseguenze che deriva da tali fattori.

L'ingresso in carcere delle donne produce quasi sempre la sensazione della “violazione del proprio corpo”, cui si aggiunge sia l'abbandono graduale della femminilità che la percezione di dipendere totalmente dalla Istituzione Penitenziaria. Il fattore “tempo” e “l'attesa”, soprattutto quando questi ineriscono la concessione di permessi premio o la concessione delle misure alternative alla detenzione, provoca un senso di smarrimento, oppressione, stress, minorazione individuale.

#### **1.6. The condition of the incarcerated mother with "children in tow"**

Fatherhood, motherhood and the relationship with offspring represent the founding system of societies of all times; added to this is the right, especially for children, to maintain strong parental ties that are fundamental to their development . The debate on the preservation of parental bonding in confinement is, even today, a battleground. Parenting should be exercised even in the status of imprisonment, yet this does not happen because in our social culture having parents (either or both) in prison represents a prejudice, a stigma from which children must be preserved. Prison notoriously breaks the family and weakens its structure, causes discomfort, embarrassment, shame for the children, and this is often because of the type of crimes attributed to one's parent . Modern psychology indicates that the detention of the father, for example, compared to that of the mother, creates less family instability and the primary task for women (wives of detainees), is to preserve family unity as much as possible through visits and interviews with the detained spouse while also bringing the children. Quite different appears to be the situation in the family after the incarceration of a mother with serious repercussions on the family environment, both because in our culture the woman is the cornerstone of all family activities, and in terms of what pertains to the non-socially accepted image of the female offender: a very common stereotype is, in fact, the equality that is established between "criminal woman" and "bad mother." Thus, the detention of mothers is often accompanied by a strong sense of guilt and shame for abandoning their children, and the greatest need felt concerns the fact that both the maternal role and the crime are disentangled; one who has committed a crime, is not necessarily a bad parent and the parental rights of the detainee are not in any way disempowered .

The detention of "a mother" and the goal of maintaining this status even in prison clashes with the reality of the rules of intra-custodial restriction. Children, rather than a concrete



goal for reintegration, represent a psychological stimulus in prison. The thought of a child can be a motive for rehabilitation, and women tend not to commit violations or engage in violent behavior, furthering the possibility of being able to take advantage of premium leave or sentence discounts for early release . The Prison Ordinance provides in Article 11 that women in detention may keep their children with them in prison until the child is three years old. As seen from court statistics, despite the fact that the current legislation provides that women with young children can be housed in sheltered Family Homes or other facilities to serve their sentences, the presence of minors living with their mothers in Italian prisons is still highly visible. After all, the UN Convention on the Rights of the Child also states: "A child whose parents, or either of them, are in detention shall be allowed to maintain appropriate contact with them." It is clear that the rule does not respond to educational principles and protection of the parent-child relationship. Although the relationship between the mother and her young child is assured, the rule does not seem to take into consideration the distorting effects of the Prison environment and the consequences on the relational level . According to The Prison Ordinance, imprisoned mothers can decide to experience motherhood in prison, but the environment has not been changed in view of this provision, therefore, the times and ways of childcare are those that the prison imposes on women. The need for the imprisoned mother to care for her children in an environmental situation that is not conducive to the children's development is not related only to social and/or affective dimensions . Other personological and psychological variables come into play (the need to develop an affective relationship with the child), or, objective ones such as the impossibility of fostering with others on the outside. The incarcerated woman with children in tow experiences the constant dread associated with the day "of detachment" that will result in the loss of the bond built and the onset of feelings of guilt and fear . Interesting research has shown that children who live inside correctional institutions exhibit patterns of regression or developmental delay due to the deprivation of relational experiences, taking into account that the only figures with whom these children come into contact are female inmates and prison police personnel. The relationship established between the detained mother and the accompanying child is always symbiotic, overprotective, but de-socializing . During their mother's detention, the children spend many hours between the cell and the yard without having the opportunity to have new experiences or learn about anything else: they represent the category of "innocent inmates."

## Conclusions

Prison institutes/female wards are populated mainly by young female mothers with accompanying children, drug addicts, unemployed women and foreigners, who represent the weakest sectors of the citizenry, both economically and socially. Taking note of this reality, does not mean placing oneself in a position of justificationism or do-goodism, but results in understanding the phenomenon in order to deal with it in the right way. The arrival in prison, as is well known, is the final stage of a journey that began some time ago, and the return to prison (the recidivism rate is very high) is symptomatic of not having interrupted the previous "modus vivendi," of having returned to the same environment, and above all, it is symptomatic of the fact that the sentence, for these people, has not performed any re-educational and re-socializing function, except great suffering. In this sense, many theorists agree on the need to strengthen the personalization of treatment, which also means understanding the extent to which the female prison population is made up of different categories, including lately foreigners and drug addicts, bearers of an extreme complexity of personal and social problems. The mixture of crime and victimization in foreign female inmates is very high, and this dramatic situation requires targeted and specific interventions for the moment that are too sporadic and sometimes left, as is the case with many issues, to voluntary work. For the category of drug addicts, it is now a well-established conviction that prison is not the appropriate place for an attempt at recovery and does not sour on them any urge not to commit again a crime that is closely linked to the psychological and physical condition of addiction. It turns out, therefore, to be essential to invest to a greater extent in the establishment of so-called "attenuated custody" regimes, in particular, for the various categories of subjects (including female prisoners with accompanying children) and drug addicts, which, while maintaining a residual containment and custodial function, are geared primarily toward the treatment, rehabilitation and secondary prevention of drug and alcohol addiction states and related deviant conduct. Although the punitive function can be considered a constant in the history of Western legal civilization, changed essentially in the methods used to "supervise and punish," the history of criminal law is marked by a slow process of humanization of punishment, which has occurred through the gradual abandonment of the cruellest forms of repression.



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# **Aggression in developmental age and antisocial conduct: an in-depth investigation into causes, forms and social implications**

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## **Abstract**

The work explores the phenomenon of developmental aggression through a multidimensional perspective, addressing several key aspects of aggressive behaviour in children and adolescents. Initially, the concept of aggression is defined, examining its manifestations and its impact in the context of individual development. Subsequently, the multiple risk factors that may contribute to the emergence of aggressive behaviours are examined, analysing biological, environmental and social influences. The focus then shifts to aggressive behaviour in developmental age, outlining the various manifestations and possible underlying dynamics and the relationship between aggressive behaviour and antisocial behaviour is explored in detail. The document also investigates the different forms and varieties of aggressive behaviour, recognizing the complexity of the phenomenon and the need to consider multiple facets. Particular attention is paid to gender differences in aggressive behaviour, exploring the peculiarities and cultural influences that may contribute to such disparities. Finally, the article examines aggressive behaviour in relation to peers, analysing the social impacts and interpersonal dynamics. Through this in-depth analysis, the article aims to provide a comprehensive view of developmental aggression, thus helping to inform clinical practice, research and intervention policies to support the psychosocial well-being of young people.

**Keywords:** aggression, risk-factor, behaviour, crimes, male, female.

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## **1. Introduction**

Aggression in developmental age represents a theme of growing relevance today. Over the years, research has focused on the definition and analysis of the many aspects involving aggression, ranging from its behavioural manifestations to its deep roots that fuel it. This study aims to explore the nature of aggression, trying to clearly define the concept and outline the different facets that make up its complexity. Through this initial definition, we will delve into the heart of the academic debate on the causes of aggression, focusing on the multiple risk factors that can contribute to its manifestation in developmental age. Understanding these elements is essential to develop targeted and preventive intervention strategies. Subsequently, we will focus on the analysis of aggressive behaviours in developmental age, exploring the different manifestations that characterize this critical phase of development. From interpersonal conflicts to group dynamics, the objective is to explore the many facets that characterize aggressive conduct and its impact on the individual and social sphere. We will highlight the link between aggressive behaviour and antisocial behaviour, examining the complex interactions that can contribute to behavioural deviance. Through an in-depth analysis, we will try to identify the possible connections that link aggressive conduct to an antisocial pattern. Next, we will explore the different forms and varieties of aggressive behaviour, recognizing its multiformity. We will also focus on the relevant differences between males and females in aggressive behaviour, analysing the biological, psychological and social influences that can contribute to these disparities. Finally, this overview will conclude with an in-depth analysis of aggressive conduct and its relationship to peers. Through a critical look at social dynamics, we will try to understand how aggressive conduct can influence and be influenced by the sphere of peer relationships, thus providing a complete picture of this complex phenomenon. Ultimately, this article aims to offer an integrated and in-depth perspective on aggression in developmental age, thus contributing to the understanding and effective addressing of this important psychosocial problem.

## **2. What is aggressiveness**

The Latin term “*adgreditor*”, to which the Italian aggressiveness can be traced back, indicates a forward movement which does not necessarily imply the intention of damaging something or someone (Muratori 2005). Currently, in psychology, negative aggression is referred to as a set of deliberately harmful acts on a physical, material and psychological level (Camaioni 1993). The complex nature of destructive behaviour is well known to experts and in 1968 Storr defined aggression as a suitcase term, which includes very different phenomenologies of violent conduct, both from the point of view of their external characteristics and from the point of view of their environmental, emotional and cognitive determinants. Contrary to popular opinion, there is no single aggressive demonstration. Much violence, physical and/or verbal, can express an attempt by the subjects who carry it out to show an image of themselves to others and to receive feedback. By aggressive behaviour, or aggression, we mean a set of actions aimed at harming a person, such as to



inflict suffering of a physical or moral nature. Aggressive behaviours are however understood as aggression, that is, as a tendency to produce conduct aimed at causing harm to other people or their substitutes. More generally, the term aggression indicates different types of behaviour which include innate modules of motor expression aimed at offense, defence, predation, attaining and maintaining positions of dominance in any hierarchy. Some authors, such as Freud and Klein, consider aggressive behaviours as instincts, blind and irrational forces that are implemented independently of the circumstances and the appropriateness of the conduct (Masala et al. 2002); while others such as Caprara and Bandura believe that the environment exerts an important influence in determining conduct. Aggression can take on a dual meaning since, even if in everyday life we often tend to classify it as negative, it most of the time helps us deal with situations by helping us overcome them positively; it does not always result in negativity, but often plays the role of a force which, if well channelled, accompanies the subject towards the growth and affirmation of his own individuality. Aggression seen in a positive light can be linked to the desire to overcome an obstacle with strength and determination, while negative aggression is linked to a destructive intentionality (Beretti, B., 2008). Among the emotional states that most influence aggressive behaviour we find anxiety and depressive sadness (Masala et al. 2002). Aggression in the classroom manifests itself in very different ways, sometimes directed against classmates and sometimes towards the teachers themselves. In some situations, it can be so pervasive as to make it difficult to carry out the lessons and, in any case, undermines the group climate, hindering learning and educational processes.

## **2. The causes of aggressiveness: risk factors**

The tendency to aggressive behaviour is the result of several factors: heredity (some children are born with a greater potential for aggression, even within the same family); sex (males are generally more aggressive than females); education (children raised in families where aggression is the norm also demonstrate aggressive behaviour); environment (stress, unhappiness, anxiety, frustration and fear are all triggers of aggressive behaviour (Lawson 2001)). The aggressive and violent behaviour of children and adolescents is much more frequent in families that are disadvantaged from an emotional-relational point of view. The environmental factors most connected to the development of conduct disorder are:

*1. poor parental supervision associated with aggressive behaviour and/or exaggerated punishment.*

2. *inconsistent and/or rejecting parental figures.*
3. *family alcoholism (especially paternal).*
4. *maternal depression.*
5. *mistreatment and/or sexual abuse.*

However, not all people who live in disadvantaged situations and/or who have suffered mistreatment adopt an aggressive lifestyle. In fact, it seems that the co-presence of biological and environmental factors is necessary for an aggressive disorder to occur. Aggression is caused by impulsiveness, that is, by a temperament trait that makes one incapable of self-regulation; this involves both difficulties with peers and difficulties in paying attention in class, in concentrating, in memorizing, in adequately planning the operations to be carried out during school activities; a child with these characteristics is therefore exposed more than others to school and social failures and frustrations, and therefore more than others will be able to react to them with anger and aggression; aggression is caused by a learning disorder, or in any case by cognitive deficits that compromise academic performance, resulting in a profound sense of personal disesteem. Children and adolescents who frequently exhibit aggressive behaviour often have difficulties in recognizing emotions and above all in understanding the relationships between emotions and context. Some individual characteristics increase the probability of becoming victims and abusers. In addition to some temperament traits (Olweus 1996) which can predispose to the implementation of prevaricating behaviours at school age, the presence of attention deficit hyperactivity disorder (ADHD), characterised by a lack of prolonged attention and impulsiveness, increases the risk of playing the roles of abuser and victim (Genta 2002). As regards the abuse implemented, the high tendency of children with ADHD to seek immediate gratification, their low self-control and their difficulty in inhibiting impulsive responses explain the problematic behaviours that often distinguish these children and, in part, also bullying behaviour carried out in the school environment. The quality of the family climate and relationships undoubtedly influences the child's bullying behaviour at school (Fonzi 1997). The families of pupils identified as aggressive are characterised by certain educational styles which, based on studies on aggression, appear to favour the acquisition of violent conduct by their children. In these families, the child in his early childhood was looked after with little warmth by his parents, who did not exercise adequate control of the boy's activities, nor were they clear and consistent in establishing and enforcing the rules of conduct. These young people, therefore, first of all experience in the family that lack of affection and understanding and that relational conflict which they subsequently reproduce in interactions with their classmates at school.

Many young people reproduce what they usually experience in their daily lives; they reproduce in a micro-context the rules of social life that have been transmitted to them, directly or indirectly (Bourcet and Tyrode 2002). Certain undisciplined and/or aggressive behaviours can result from a state of emotional deficiency felt by the child. This would arise both from a lack of inclusion within the school environment, and from a feeling of discomfort felt in the family, or in society in general, in which the child lacks a satisfactory



dimension of dialogue (Bourcet and Tyrode 2002). In sanctioning aggressive conduct, the relationship between the individual's personal characteristics, the type of conduct he carries out and the environment is fundamental. This relationship is defined as "reciprocal and triadic determinism" whereby each factor influences and is influenced by the other elements of the triad. On the one hand, individual predisposition and the surrounding environment play a crucial role in the manifestation of aggressive behaviours. On the other hand, no less relevant are the cognitive mechanisms used to justify such actions. The young person, in fact, could choose to perceive their aggression as legitimate and acceptable, making use of strategies of moral disengagement. In this way, a complex intertwining of internal and external factors is activated, which contributes to a more in-depth understanding of the dynamics underlying such aggressive behaviours. In the school context, for example, some students may develop aggressive behaviour because they are placed in a peer group that emphasizes these attitudes. Furthermore, kids who are predisposed to aggression will be more inclined to seek out groups within which to propose their behavioural style. In fact, subjects who develop aggressive styles tend to choose activities and companions who share a similar behavioural style, and therefore the pre-existing inclinations reinforce each other (Bandura 2000). During adolescence, it happens that completely normal children develop aggressive behaviours aimed at managing the conflict with their parents and defending their right to experiment as autonomous individuals. Genetic studies lead to the estimate that approximately 40% of the tendency to aggressive behaviour, particularly that of an impulsive nature, can be attributed to genetic factors. Genes therefore cannot be considered solely responsible for aggressive behaviour, nor can they be considered as leaders in the determinism of interactions between environment and brain in the construction of personality. They certainly contribute directly to the definition of individual predisposing cognitive and temperamental factors, which in turn influence the emergence of aggressive and antisocial conduct, without, however, being considered as having a direct impact on violent behaviour. As regards the behavioural aspects, an attempt was made to distinguish oppositional-aggressive behaviour from delinquent behaviour, which, taken together, are the expression of externalized disorders, i.e. characterised by the child and adolescent's tendency to express their conflicts externally. Studies on twins have shown that oppositional and aggressive behaviour is highly heritable and little influenced by environmental factors, while delinquent behaviour is little linked to genetic factors and more connected to factors belonging to the shared social environment. Individuals with a

propensity for violence have a temperamental predisposition characterised by oppositional traits, strongly influenced by genetic factors. This innate predisposition can trigger dysfunctional social interactions, resulting in a transformation of the genetic propensity into effectively antisocial and violent behaviour. In this context, the complex interaction between genetic and environmental elements in shaping the behavioural profile of individuals prone to violence is highlighted. We can also say that in general the degree to which a genetically inherited temperamental predisposition actually becomes violent behaviour depends on the quality of the social environment in which the child and young person lives. The progression from the predisposition to aggressive behaviour to actual violent and antisocial gestures occurs when children with a genetic predisposition live in marginal families where the father in turn has antisocial behaviour or is absent from the family, and the child is raised by mothers depressed, in turn with antisocial behaviour and substance abuse. Research on temperament characteristics indicates that children with challenging traits at an early age are prone to display aggressive behaviour in later periods of their growth. It has been reported that corporal punitive attitudes up to physical abuse on the part of parents are significantly correlated with violent behaviour in their children. From the same perspective, the importance of coercive attitudes was highlighted as a manifestation of parental inability to manage the child's normal disobedience. These attitudes induce a mutual reinforcement of aggression in the interaction between parent and child, offering the child a negative model of identification. Some studies have found that the association with an insecure attachment is frequent, as there is a prevalence of hostility and difficulty managing anger. But above all, solid relationships with a disorganized attachment were highlighted, characterised by the absence of a coherent attachment style, by rapid fluctuations between situations of security and situations of great insecurity and instability, by reactions of fear towards the person affects the child, from avoidant and hostile behaviour, from difficulties in regulating emotions, from reduced cognitive and social skills, all aspects which are also typical of children with violent behaviour.

### **3. Aggressive behaviours in developmental age**

The initial path towards aggressive behaviour begins with the newborn recognizing anger in the facial expressions of adults, a skill that develops from the third month of life. This process is followed by the child's expression of anger in response to frustrations, which begins in the second half of the first year of life. Patterns of aggressive behaviour, manifested through outbursts of anger and the use of physical force, emerge particularly during the second and third year of life during conflicts with peers and adults. Aggressive behaviour tends to decrease from early to middle childhood thanks to the development of social and self-regulation skills, with the only exception being the relationship between brothers and sisters. Aggressive behaviour tends to become more dangerous, also due to the spread of firearms and other weapons among adolescent boys (Verlinden et al. 2000). An important change in the pattern of aggressive behaviour from childhood to adolescence is that aggression and violence tend to become more socially organized.



Longitudinal studies have shown that aggressive behaviour remains rather stable over time (Laub and Lauritsen 1995). Aggression in young children would not be a problem that can be overcome as the years go by, unless they are helped with specifically planned interventions. There is evidence of a steady decline in aggression as a function of age (Loeber and Stouthamer-Loeber 1998). However, it is equally true that some individuals can develop violent behaviour without any previous signs of aggression having emerged. The reason why some people become noticeably aggressive during adolescence without evidence of a gradual increase in aggressive behaviour patterns from childhood is not entirely clear. Some scholars suggest that those who become violent in later life are often highly controlled individuals, who seek to repress their aggressive inclinations, and who exhibit aggression only when the aggressive stimulation is intense enough to overcome such inhibitions. Another possibility is that the social organization of violence in adolescence within youth gangs may attract vulnerable individuals due to other problems unrelated to aggression, such as low self-esteem or social isolation. Children who demonstrate a deficiency in impulse control and emotional regulation are more likely to develop and maintain aggressive behaviour patterns. These children, who are often attributed with difficult temperaments, have difficulty controlling their aggressive impulses in age-appropriate ways (Kingston and Pri1995). Variations in temperament emerge early and exert an influence on how children are interacted within their social context. A link has been found between a rigid education received by parents and high levels of aggression in children, also because the message received by the child is that physical punishment represents an acceptable way of resolving conflicts. Similarly, high levels of aggression have been observed in neglected and abused children (Coie and Dodge 1998). Aggressive children are rejected by peers from the age of 6 and this rejection is associated with an increase in aggression. The association of some of these aggressive individuals with equally aggressive peers is limited to adolescence and does not continue into adulthood. The literature has highlighted that children use aggressive behaviour between peers very early and with at least three purposes:

- 1. defend personal property or what is perceived as such.*
- 2. establish a sort of dominance within the group, also aimed at regulating interpersonal conflicts.*
- 3. act on a psychomotor level, psychological tensions that are not necessarily pathological.*

Even in children it is possible to distinguish a reactive form of aggression from a proactive one (Dodge and Coie 1987); it has been observed that the tendency to use reactive forms of aggression is related to a history of negative affective experiences, social isolation, the inability to correctly interpret the behaviour of others with a tendency to attribute hostile intentions to the other; vice versa, the child who uses proactive forms of aggression apparently has a high opinion of himself and may show moderate leadership or social control skills. There is also a form of pro-social aggression, detectable as early as two years of age, which does not primarily aim to inflict damage but to achieve a socially approved objective. We observe the young child's tendency to predominantly use forms of direct physical aggression, while, when the linguistic tool is available, the aggression is enriched by the verbal component. During the adolescence period, children develop aggressive behaviours aimed at managing the conflict with their parents and defending their right to experiment as autonomous individuals.

#### **4. Aggressive conduct and antisocial behaviour**

Aggressive behaviour increasingly reveals itself as a complex construct within which we can trace different behaviours and meanings (Caprara and Laeng 1988). Although more recent literature has highlighted that many aggressive acts take place in the context of other antisocial behaviours, such as drug use, vandalism, etc., the two terms are partially different. The concept of aggression highlights in a peculiar way a latent potential, an intrinsic strength in the human being which is therefore difficult to observe directly. Talking specifically about aggressive behaviour means focusing above all on the act itself, which is objective, practical and therefore easily observable. Aggression represents the greatest point of similarity that characterizes and unites two distinct phenomena such as bullying and Conduct Disorder. We are talking about distinct phenomena as in the first case it is not a personality disorder while in the second case it indicates a pathology, a disorder that can be diagnosed in children. School, in recent times, has been increasingly affected by the educational emergency constituted by Conduct Disorders, aggressive and deviant behaviours and bullying phenomena. These are evolutionary difficulties that inhibit the learning possibilities of the subjects involved and compromise their human education and correct social integration. Pupils with DdC like bullies, if not recovered thanks to a course during growth, carry the consequences until adulthood where the individual, social and working life path is affected. It seems relevant to point out that the violence in school, the abuse and humiliation by some towards the most disturbing classmates are due to the greater diffusion of the phenomenon and the attention paid to them by educational agencies. In both phenomena, bullying and DDC, due to the aggression that the subjects display, social functioning is compromised (Buccoliero and Maggi 2005) as the subject is unable to build stable and long-lasting friendly relationships and is unable to show empathy towards others as he is only in contact with himself. The characteristics of aggression are present in both phenomena treated, bullying and DdC: in both the one and the other the aggressive conduct is carried out with the aim of causing



harm to the other person, is repetitive and persistent and does not produce remorse in the subject who performs them. Aggression presents an infinite number of behaviours which may be different from each other, but which are all classified as aggressive even if they present a different level of severity. In bullying as in DdC the type of behaviour can go from minor to greater severity: in bullying the physical actions of abuse can range from episodes of mild aggression such as pulling hair or pushing, to the appropriation or damage of other people's objects, up to the most serious forms of physical violence (Mariani 2005); in Conduct Disorder, subjects may show domineering, threatening, intimidating behaviour, start physical fights, even using a weapon, or steal by attacking the victim. To understand what exactly is meant by aggressive conduct, it is appropriate to specify what it means. The term aggressive behaviour, or aggressiveness, means a set of actions aimed at harming a person, such as to inflict suffering of a physical or moral nature. Aggressive behaviours are however understood as aggression, that is, as a tendency to produce aimed at harming other people or their substitutes. When aggression involves explicit violations of the norms, values and laws that regulate social behaviour we speak of delinquency or anti-sociality. Some authors believe that it is necessary to distinguish between aggressive syndromes (destruction of objects, bullying, vandalism, getting into fights and in general causing physical harm to someone) and delinquent syndromes (characterised by behaviours aimed at transgressing social rules such as stealing, lying, do not attend school). The evidence that some antisocial behaviours are not necessarily associated with manifest aggression, and that they are indeed covered by an apparently irreproachable attitude and carried out by subjects with high social status, has made it possible to overcome the cliché that saw delinquency solely as the product of poor socioeconomic conditions.

## **5. Forms and varieties of aggressive behaviour**

We speak of direct aggression (physical and/or verbal, explicitly aimed at a subject), indirect (which is based not on physical or even necessarily explicit actions, but rather through various forms of ostracism), reactive (impulsive, often explosive and uncontrolled, characterised by high levels of arousal, anger and fear, and generally manifests itself as a reaction to antecedent conditions which represent, in the eyes of the subject, a provocation), and proactive (aimed at pursuing a specific goal, it is dominated by cognitive and intentional and characterised by low levels of arousal, i.e. a colder attitude, if



associated with a poor ability to empathize with others and in general to experience deep emotions it is also defined as psychopathy). Aggressive behaviours can be divided into two different types, positive and negative aggressive behaviours. The main characteristic that distinguishes truly positive aggression from negative or pathological aggression is given by the symmetry of the relationship between the aggressor and the attacked who can, at a later stage or context, exchange roles. Anger and aggression can become harmful as they can turn into violence and/or abuse towards others. By negative aggressive behaviours, we mean, in fact, those behaviours which, if observed, must represent an alarm bell for the identification of a problematic child, who presents a dysfunctional conduct for the achievement of healthy development and must lead to reflection and looking for the motivation for their implementation. Within aggressive behaviours, some authors (Coie et al. 1991) have identified some subtypes. Let's start by distinguishing between two forms of aggression: the first, defined as proactive aggression, occurs without any provocation from the partner and has as its objective the realization of the aggressor's intentions; the second, known as reactive aggression, manifests itself as a response to previous circumstances such as provocations or constraints. The same authors (Coie et al. 1991) further divided proactive aggression into two subclasses: bullying and instrumental aggression. The first form of aggression, previously also defined as hostile aggression (Caprara et al.1988), finds its motivation in the affirmation of interpersonal dominance, while the second is a coercive behaviour aimed at non-personal ends, such as possession of an object. There are two types of aggression: predatory aggression and affective aggression. The first is offensive aggression with a clear purpose, aimed at obtaining a positive result for the subject; the second is defensive and reactive aggression to the fear of a negative event. We also talk about impulsive aggression and programmed aggression. Impulsive aggression is an aggression associated with affective instability, it is explosive, it is not controlled, it is sometimes also directed towards oneself, it is often accompanied by anger and fear, and high levels of excitement. This type of aggressive behaviour has a very distinct impulsive character and is permanently associated with antisocial conduct. A distinction can be made between gang aggression, which involves antisocial and aggressive group behaviour, and aggression experienced and acted out in a solitary way, connected to difficulties in establishing bonds, and usually more emotionally charged. Secondly, we can distinguish overt aggression characterised by quarrelsomeness, fights, outbursts of anger, hostility and which is closer to impulsive aggression, from hidden aggression characterised by gestures made so as not to be discovered and which expresses itself in more controlled ways which bring it closer to predatory aggression. Thirdly, an instrumental aggression aimed at obtaining rewards or advantages is kept distinct from an aggression characterised by hostility and impulsiveness, which would lead the child to obtain punishments rather than advantages. Finally, it is possible to distinguish reactive aggression, which manifests itself in response to a provocation and which is of an affective nature, from proactive aggression, calculated and aimed at obtaining a useful result; children with reactive aggression are those who are more likely to interpret the behaviours of their peers as hostile, while those with proactive aggression do not show this tendency to interpret the intentions of others as



maliciously. Ultimately, two types of aggressive patterns appear to emerge: the predominantly impulsive-reactive-hostile-affective one and the predominantly controlled-proactive-instrumental-predatory one. The first consists of unplanned impulsive attacks carried out in a state of uncontrollable rage, following minimal provocation and without clear purpose. Feshbach in 1970 classified aggression as accidental and intentional, and the latter as hostile, in which the offense of the other is the aim, and as instrumental, aimed at achieving a different purpose. Coie and collaborators (Coie et al. 1991) have distinguished forms of proactive aggression, aimed at pursuing the aggressor's goal and which is carried out in the absence of provocation, and reactive, following a provocation, while Tani (1990, 1994) has categorized violent behaviour into direct aggression, oriented towards harming the target, specific, similar to Feshbach's instrumental aggression, and playful, consisting of aggressive conduct characterised however, it has a different relational meaning, connected to exploration and competition. Even from the point of view of its manifestations and the dynamics it assumes, aggressive conduct differs. A taxonomy of aggressive typologies allows us to differentiate:

- 1. physical aggression, carried out through body contact.*
- 2. verbal aggression, such as insults, teasing, threats.*
- 3. social aggression, carried out through less explicit methods of attack, such as social isolation and the manipulation of friendship networks.*

## **6. Differences between males and females in aggressive behaviour**

In the early school years, gender differences in aggression become evident, with boys generally showing higher levels of physical aggression than girls. The latter, however, frequently show both verbal and physical forms of aggression (Crick and Grotpeter 1995). Girls often replace aggressive behaviour with non-aggressive strategies to resolve conflict, while boys' frequent tendency to resolve social conflicts aggressively persists well into adolescence and early adulthood. The belief that men are generally more aggressive than women is well rooted in everyday observations, emerges from crime reports and common sense. Developmental research indicates that gender differences in aggressive behaviour appear very early, as early as the third year of age (Coie and Dodge 1998). Loeber and Stouthamer-Loeber report that the path of aggressive behaviour appears to be different in boys and girls: a higher percentage of girls begin to become aggressive in adolescence without having shown signs of aggression in the past, and girls' involvement in of violence

peaks earlier than in boys. Girls' judgment regarding aggressive behaviour also differs from that of boys, who show different opinions regarding aggression as a way of resolving conflicts (Huesmann and Guerra 1997). The available evidence regarding the global differences between the aggressive behaviour of men and women, emerging both from individual studies and from meta-analyses, is particularly clear: men show higher levels of aggression in all domains, although the difference is not exaggerated (Hyde1984). The results obtained from cross-cultural studies also confirm this conclusion. Gender differences in aggression vary depending on the type of aggressive behaviour analysed; they are greater if he considers physical aggression more than verbal aggression and direct aggression more than indirect aggression. Just because there is solid evidence that men are more aggressive than women do not mean that women are not aggressive.

It is known that violent behaviour is much more frequent in males than in females. Conduct disorders, which represent the nosographic category identified by the two most important manuals for psychiatric diagnosis, the Diagnostic and statistical manual (DSM-5) drawn up by the APA (American Psychiatric Association), and the International Classification of Diseases tenth edition (Icd-10), published by the WHO (the World Health Organization), for children and young people who exhibit these behaviours, are four or five times more frequent in males than in females. Today, being male is unequivocally a risk factor for developing violent behaviour. There is in fact a clear prevalence of these behavioural disorders in male subjects. Already from the age of four, boys are much more likely to be the protagonists of antisocial acts with or without expressed aggression.

## **7. Aggressive conduct and relationships with peers**

Children frequently adopt aggressive relational methods towards peers, which differ depending on age and context. Generally, as they grow up they learn to manage conflicts more effectively, through dialogue, sharing of goods and cooperation. A normal development of language, mentalization and empathy allows you to use more refined conflict negotiation strategies, to understand other people's intentions and motivations and to adopt the interlocutor's point of view. The literature shows that the children most accepted by their peers are those who possess some prosocial characteristics, namely (Bierman, K.L., 2004):

- 1. ability to cooperate.*
- 2. ability to communicate.*
- 3. ability to introduce himself into the group using diplomatic strategies.*
- 4. ability to regulate one's emotions, to tolerate frustrations, to show a sense of humour.*

On the contrary, aggressive behaviours are poorly tolerated by the group, unless they fall into the category of prosocial aggression, that is, they are aimed at achieving a socially approved goal, such as winning in the case of a match, defending oneself or other classmates from aggressions considered unjust, or the defence of one's own honour: in this case some aggressive behaviours can be supported and even encouraged by the peer group.



The rejected forms of aggression are instead those with impulsive characteristics, inadequate to the contingent situation and apparently unmotivated, for example tantrums or fits of anger following frustrations in the game, or proactive forms of aggressive aggression, i.e. apparently not provoked by any condition antecedent. It is therefore important, especially for teachers, to note whether or not a child's aggression is pro-social, that is, whether or not it is accepted by classmates: in the latter case, in fact, aggressive behaviour, although it can create problems in the classroom, it will have less negative consequences than impulsive aggression both on the development of the individual self, on his ability to learn and on the child's mental health in general. The child who uses forms of impulsive or harassing aggression and even more so the one who shows oppositional-provocative behaviour are typically rejected by their classmates, not only because they are aggressive, but above all because they are quarrelsome, irritable, hypersensitive and touchy, insecure and suspicious about interpersonal level and with a strong orientation towards power in playing with others. The behaviour of these children, which can be defined as generally hostile, triggers aggressive counter-reactions from others with consequent confirmation of the initial negative predictions: in this way the vicious circle is maintained and indeed strengthened, with further damage to development and worsening of the relational climate in the classroom. Aggression is therefore not a sufficient condition for serious problems to occur in relationships with peers: the latter event occurs when the aggressive behaviour presents characteristics of impulsiveness or hostility and in any case does not appear motivated by social goals. It is then that aggressive children are rejected, and this is the main risk factor for their development: it has in fact been shown that aggressive and/or hyperactive children who are also rejected by their peers present greater problems over time compared to aggressive and /or hyperactive accepted by peers (Miller-Johnson 2002). It is also interesting to note that children with conduct disorders are often sensitive to the opinions of their peers, more than adults, so much so that their levels of self-esteem, already particularly unstable, are further reduced following negative interactions with their peers. (Esposito et al. 2005). The child who is unable to communicate with others except through forms of harassing aggression or who reacts explosively to frustrations and conflicts must therefore not be neglected by teachers: his behaviour is in fact indicative of a profound discomfort and a sense of personal contempt that fuels anger and hostility towards others.

## **Conclusions**

In closing this in-depth examination of aggression in developmental age, the complexity and multi-dimensionality of this psychological phenomenon clearly emerge. Our analysis spanned fundamental definitions, exploring the underlying causes, multiple behaviours, and social connections that characterize aggressive conduct in children and adolescents. Aggression, understood as a set of behaviours that can vary considerably in intensity and form, represents a challenge to be addressed with an integrated approach. The multiple causes that contribute to this behavioural manifestation highlight the need for a holistic assessment that takes into account biological, environmental and social factors. A targeted analysis of risk factors can, in fact, guide preventive interventions, providing effective tools to counter potential negative dynamics. The evolutionary phase, with its multiple aggressive behaviours, underlines the importance of an in-depth understanding of the various facets that characterize this period of growth. The connection between aggressive conduct and antisocial behaviour, which emerged in our analysis, suggests the urgency of timely and targeted interventions to prevent the evolution of deviant behaviour. The diversity of forms and varieties of aggressive behaviour underlines the importance of personalizing intervention strategies, recognizing the uniqueness of each individual. Furthermore, the differences between males and females in aggressive behaviour require particular attention, promoting a sensitive approach to the gender dynamics that can influence the manifestation of such behaviours. Finally, the analysis of aggressive behaviour in relation to peers led us to a more in-depth understanding of the social dynamics involved. Promoting positive relationships and creating supportive environments can play a crucial role in directing aggressive behaviour toward more constructive outcomes. In conclusion, aggression in developmental age requires an integrated and multidisciplinary approach that considers the complexity of the factors involved. Only through in-depth understanding and an active response at an individual and social level can we hope to mitigate the negative impacts of this phenomenon, favouring the development of resilient individuals who are harmoniously integrated into the community.

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# The psychopathological profile of the criminal between recognition, interpretation, diversity

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## Abstract

Clinical criminology and forensic psychiatry today tend towards an integrated approach of analysis, through the simultaneous use of criminological and psychiatric content and methods for the prevention of antisocial behaviour, search, diagnosis and treatment of offenders. The identification and examination of criminal personality characteristics and the identification of psychological frameworks systematically linked to criminal behaviour are important resources in the course of investigations, particularly in the face of cases of a serial and particularly violent nature. This type of analysis may be useful in providing investigators with a closer pool of suspects, more appropriately characterized in psychological and existential terms. The Criminal Profile or Criminal Profiling is an investigative tool that, through an accurate analysis of the crime scene, the findings obtained through the autopsy and a precise reconstruction of the dynamics of all aspects of the crime, aims to draw a psychological profile of who committed the crime.

**Keywords:** criminal profile; society; behavioral sciences; techniques; forensics.

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## 1. Introduction

Clinical criminology and forensic psychiatry, for years now, tend to an integrated approach of analysis, through the simultaneous use of criminological and psychiatric content and methods for the prevention of antisocial behavior, search, diagnosis and treatment of offenders. The analysis of criminal personality constitutes the fundamental field of common interest of these two closely related disciplines, which also takes great account of an assessment of the environmental factors possibly predisposed to antisocial behaviour

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(Rossi and Zappalà 2005). The first studies that focused attention on the possible correlations between personality type and crime are to be traced back to the Belgian scholar De Greef (1946), who by "personality" meant a fixed disposition to react with a precise mode to a stimulus, also derived from all past experiences. De Greef (1946) identified some particular phases constituting criminology: crimogenesis, characterized by an "affective silence" resulting from the conviction of the offender to be subjected to an injustice; the criminodynamics that explains criminal behavior and that introduces the concept of "dangerous state", phase of unstable psychic balance that precedes the execution of a crime. Then follows the "passage to the act", in which the situation falls with the execution of the crime (De Greef 1946).

## **2. The study of criminal personality**

Crimes represent an abnormal field of human conduct, deformed by a varied and complex spectrum of presentation of so-called normality, but not alien to it. Crime, today, is analyzed in particular through the tools of criminal psychology, using numerous theoretical references, from psychopathology to legal psychology, to psychodynamics (Baccaro 2017). Over time, the experience of individual criminological profiling cases has multiplied and today we need to reconsider the range of criminal profiles based on all the temperamental, family, social and therefore subcultural factors, and relating to the instinctual satisfaction of the basic needs rational or instinctual of the individual case in its kaleidoscope of human reactions, sometimes only instinctual, sometimes perverse and frankly pathological. The term "profile" is used imprecisely not only with reference to its meaning, but also to its application. The process of deducting distinctive personality characteristics responsible for the conduct of criminal acts has been commonly referred to as "criminal profiling" but has also been called, among other less common definitions, "profiling of behaviour", "crime scene profiling", "criminal personality profiling", "criminal profiling" and "psychological profiling". It can be said today that each of these definitions represents a very specific theme in its own right, just as often the one flows into the other and in some cases the one is complementary to the other (Palermo and Mastronardi 2021). The criminal personality is particularly analyzed by Pinatel (1999): he identifies four main traits determining the core of the criminal personality (Fig.1) that underlie the passage to the act and are present in each of us. The strokes are characterized by:



Fig. 1 traits determining the core of the criminal personality



1. *Egocentrism*: psychoanalysis defines "egocentric" a person who always puts himself at the center of attention and tends to absolutize his own judgments and perceptions. This behavior, which is normal in childhood, becomes evidently problematic in adulthood when "self-centered thinking" should give way to "socialized thinking" (Thakar 2014). According to Freud (Finelli and Vinci 2015), egocentrism is the consequence of an Es - the part of the human soul that contains the drives - hyper-developed. This entails the need to give immediate satisfaction to one's instincts and impulses, without taking into account those that are indirectly imposed by the context, the social environment and the needs of other people. There are several behaviors that indicate that a person puts himself at the center of the world or, in any case, in a priority position with respect to others. First of all, the egomaniac lacks a gift - empathy - and that leads him to have difficulty understanding other people's feelings or really listening to them. Not only that. On the contrary, it tends to always bring the conversation back to itself. This shows little interest in others and inability to share their views and moods. Personal needs always take priority over those of others. As the views of others are of little relevance to the egomaniac, criticism of him tends to be rejected, with the idea that there can be no other perspective than his own. The egocentric has a high regard for himself, so on the one hand he does not accept the idea that he can make mistakes and often puts the blame on others. On the other hand, he is obsessed with the need to always give the best impression of himself. Self-criticism is also misled by an overestimation of one's own abilities.

2. *Emotional (or affective) lability*: is a clinical manifestation of some psychic disorders such as "Major Depression". It is a symptom that can result from disorders in the relational affective sphere and lead to a further reduction in social relations. Physical and emotional abuse during childhood or adulthood as well as alcohol abuse are factors that can favor the manifestation of affective lability. Childhood abuse and alcohol abuse are very common among young people with hyperactivity attention disorder (ADHD). A potential mechanism of mediation would be represented precisely by emotional lability. In a 2020 research, a sample of 122 subjects at risk of ADHD (37% male) was evaluated, that is, with child abuse and with alcohol abuse in juvenile age (Mencacci and Migliarese 2021). The results showed that the presence of emotional lability mediated the association between negligence or emotional coldness and problems related to alcohol use. Child abuse would increase the risk of alcohol abuse at a young age. The association between emotional abuse and alcohol problems depended on both emotional lability and sex. During the research, the low presence of emotional lability has determined in men a poor association between childhood abuse and the risk of developing alcohol abuse. The association between the two factors, however, was strong in men with marked emotional lability and in women (Bunford et al., 2017). Childhood abuse can increase the risk of experiencing depression, anxiety, and alcohol abuse. There are, however, subjects who, despite these antecedents, do not suffer from such ailments. This was verified in a sample of 10980 (in 2019) adult participants who had suffered severe child abuse. Compared to men, women recruited in the study reported more emotional and sexual abuse, as well as less emotional regulation. For both genders severe emotional abuse, severe physical abuse, intense emotions, and physical neglect were associated with symptoms of depression and anxiety while only severe physical abuse increased the risk of engaging in alcohol abuse. In men severe emotional abuse and physical abuse were associated with clinical levels of depression and anxiety. In women, sexual abuse, emotional neglect and severe physical neglect were associated with clinical levels of depression and anxiety. Severe emotional abuse in men and severe physical abuse in women was associated with alcohol abuse. With regard to resilience, the majority of study participants and severely abused in childhood did not report clinical levels of depression or anxiety (72%) or alcohol abuse (93%) in adulthood. Although the majority of severely abused or neglected individuals have not shown clinical levels of depression, anxiety, or alcohol abuse, severe child abuse can still increase the risk of developing psychopathology in adulthood (Rehan et al., 2017). Emotional lability can also occur in conditions of extreme vulnerability such as pregnancy and post-partum. Childbirth is a significant event in a woman's life and in the couple's relationship. Organizational changes that follow childbirth require the reorganization of previous daily lifestyles and the development of new methods of adaptation that often prove difficult to implement. One study assessed to what extent the development of postpartum depression symptoms in new mothers may be associated with their level of marital satisfaction. In the research 100 women were recruited in the first month after childbirth (Pinna and Del Zompo 2012). Women completed questionnaires regarding



postpartum depression and the quality of the marital relationship. The results showed a significant correlation between the level of postpartum depression and the quality of interpersonal relationships. Increased severity of postpartum depression symptoms (sleep disturbances, lability or affective passivity, anxiety/insecurity, mental confusion, loss of self esteem, guilt/shame, thoughts of death) occurred in women less satisfied with their relationship, that is, in those who have experienced a reduced level of intimacy, ability to fulfill tasks and similarities with the partner, as well as a deep sense of disillusionment. Women who declared a deep satisfaction of their marital relationship showed a greater feeling of psychophysical well-being (Giorgetti 2021). No correlation was found between the occurrence of postpartum depression and socio-demographic factors (age, level of education, place of residence) or factors associated with pregnancy history (number of children, number of pregnancies, history of abortions, early diagnosis of depression, type of childbirth, condition of the newborn after birth, method of feeding the newborn). Women who are dissatisfied with the quality of their marital relationship would therefore experience the symptoms of postpartum depression more severely (Malus et al. 2016).

3. *Aggression*: is a state of mind that leads the person to put in place behaviors to attack and cause harm to others, through physical and verbal violence. A person who often reacts aggressively can have problems at the social or work level, that is, the causes can be entirely personal (Krahè 2005). Aggression is usually an instinctive reaction, a defense mechanism, that can manifest itself through the use of violence. However, aggression and violence are not necessarily synonymous. Violence, in fact, is a conscious act that is used with the aim of harming others. A person can be aggressive for a number of different causes (Pellicanò 2009). This reaction can also be caused by environmental or biological factors. In several cases, aggression is also a symptom of some psychological disorders. Among the main causes of aggressive behavior we find: addiction to substances such as alcohol and drugs; anxiety; autism; depression; bipolar disorder; schizophrenia; climatic and environmental conditions such as heat, pollution and noise; frustration; trauma during childhood; Alzheimer's; use of certain types of drugs; low serotonin levels.

4. *Affective indifference*: it is characterized by coldness towards the pain of others, suffering. This type of attitude is a signal that can be seen in a criminal personality. Emotional indifference is a dangerous form of moral inertia, existential passivity,

superficiality, which the criminal uses against the existence of another individual and in general the truest and deepest values inherent in that person. Indifference is a dark evil that devours humanity, that bewilders, that devours society (Zamperini 2007). These hypotheses seem to have been confirmed by verification studies carried out by Canepa (1974) on samples of criminals. However, subsequent research has not been able to clarify whether typical personality traits exist in criminal subjects or whether these lend a particular intensity of traits widespread in all individuals and whether these characteristics are the cause or effect of a life of criminal. Tracing the history of this field of research, a "criminal personality syndrome" has been identified, characterized by a specific psychopathological structure, which favors the acting-out (transition to criminal action) and is characterized by three fundamental traits: Criminal hyperactivity, antisociality, and a remarkable egocentrism. It has been shown that environmental and social factors are always mediated by the above syndrome, which frequently overlaps with other personality structures (Strano et al. 2000). Yochelson and Samenow (1977), while highlighting recurrent psychological features in criminology, such as ease of excitement, fantasies of domination, power and triumph, widespread fear and persistent suspicions (traits that lead to thinking about the presence of narcissistic and paranoid components in the structure of the character), argues, *aktresi*, that the personality traits of the person committing a crime are present even in an attenuated form in most individuals. Some criminals may also be driven to seek illegality and domination by low self-esteem, a feeling of desperation, feelings of pride, and a quest for power. Forensic psychiatry has for many years been a field that makes use of psychological theories, experiences and methodologies to respond to the increasingly frequent needs of the legal system, especially in the criminological field (Nivoli et al. 2019). The identification and examination of criminal personality characteristics and the identification of psychopathological frameworks systematically linked to criminal behaviour are important resources during investigations, particularly in the face of cases of a serial and particularly violent nature. This socio-psychological perspective also offers a fundamental contribution of information useful for conducting interrogations according to the type of personality of the possible accused, deviating from the usual standard procedures (Russo 2018). Specifically, the task of the psychiatrist proves complex, especially for the variability of human behavior and antisocial behavior, and this means that there is no universally recognized typology for offenders (Volterra 2015). To this is added the fact that there is no language common to the Police Forces and Mental Health Workers that allows to describe the violent criminal behavior, the motives and its meanings (Sanza 1999).

## **2. The passage to the criminal act (acting out)**

The understanding of the criminal act cannot be separated from the attempt to provide a dynamic explanation of the act itself (criminodynamic). Criminal acts (especially in cases of crimes for which it is difficult to find an understandable motive) can be the expression of a compromise formation, a derivative of an internal conflict or a distorted mental



representation of which the crime becomes a concrete manifestation (Elbert and Natali 2013). The action is never an uncontrolled event, indeed it recognizes in itself a succession of organized actions so it is not so much the intensity of the motor discharge to define it as "set in motion" as the fact that they are discharged, in a disguised manner, aggressive and destructive drives on a replacement object. On the contrary, an action that presented itself, albeit with characteristics of suddenness and discharge, but from which it was not possible to derive elements of conflict, if the instances of the ego and the most internal drives and regulations were correctly considered, should not be considered an implementation, but a correct mode of "doing" (Jervis 2001). Acting out differs from "symptomatic actions" (although this differentiation operation can sometimes be clinically difficult). In them, too, the action seems inappropriate with the context, but there is an element of continuity between the subject and his being caught by an irrepressible request to action. Symptomatic actions are not organized and consistent, they are experienced as bizarre, alien to the ego and can represent its failure (the presence of a psychiatric pathology is frequent for criminal purposes). In symptomatic action the past event is greatly deformed and only a fragment can be represented. The symptomatic action is an act in which the patient feels involved negatively, that gives suffering inducing fear and anxiety, and that happens despite himself: it also implies a subjective split, that is "egodystonic" and on it the subject can ask questions. The acting out instead has been and is often considered improperly a direct impulse discharge, tending to lighten a tension. In this sense, the term assumes a more extensive and therefore less comprehensive character. It is sometimes attributed to antisocial or dangerous impulsive actions, poorly motivated, for example in people with psychotic disorders, or personality disorders, in people addicted to substance use, binding, in a psychodynamic perspective, to a personality structure and its functioning (Lykken 1995). The criminal action in this perspective necessarily presents characteristics from which it can be derived, through the study of the place, the circumstances, the victim, different information on the psychology of the author, which will allow to narrow the field of investigation. In people who become authors of criminal acting out there is often a permanent imbalance, inherent in the psychic structure, which produces a chronic destructive action in the external world. This action, however, is always an expression of compromise formations, distorted derivatives and masquerades of inner conflicts: they are never direct discharges. Despite the above details, in psychiatric clinics, the term is used in its most extensive sense, that is, of an action agitated by a patient. The question has been asked as to why there are subjects who tend to act more than others or whose actions are

particularly destructive (Lusa and Borrini 2013). The explanation that has been credited is that those who have conflicts that are situable in the preverbal age or who have had inhibitions to verbal communication act more and therefore prefer motor expression, to indicate a relevant depth of the level of functional disturbance; the reflective function, that is, the ability to give understandable psychological significance to one's thoughts, is markedly deficient. People with a type of disorder that frequently induces strongly aggressive "step-to-act" behaviors both hetero-aggressive and self-aggressive, frequently have severe alterations of the personality structure (although this does not necessarily lead to a reduction in their imputability) (Allen and Anderson 2017). Often, the relational modalities of the disturbed subject on the level of the personality are such as to determine abrupt passages from relationships of dependence from an external object lived as omnipotent or potentially rewarding, to aggressive relations, in which the other is characterized as rejecting or expelling or the object of particularly envious attacks, assume the distorted meaning of "doing justice", in the perverse perspective of the subject. It is in this way that you can have "put in place" extremely aggressive; the implementation is often preceded by a lifetime of unconfessed fantasies, returns to the past, perverse desires. It is as if the subject, lived a whole life in a split dimension, outwardly normal but inwardly dominated and populated by vindictive fantasies connoted in a sadistic and violent sense, yielded to the impulse to "give breath" to their own inner demands.

### **3. Personological profile and psychological investigation**

The typical practical procedure to arrive at the psychological profile is divided into several phases described by De Luca (2000). It is obvious that the psychopathological profile of a person who committed a crime can only start from the specific analysis of the crimes committed and the crime scene. The first element that should be considered is precisely the crime scene, which constitutes a living document of the subject's actions and is the basis for most behavioral interpretations (Bruno and Marrazzi 2000). The reconstruction of the crime scene starts from the use of scientific methods, physical evidence and deductive reasoning to achieve a specific knowledge related to the series of events related to the crime. Using the basic principles of applied psychopathology, it is sometimes possible to draw from the scene of the crime scientific and psychological evidence relating to the subject. In other words, it is as if something very specific about the subject remains at the scene (Holmes and Holmes 2008). Another discipline that makes a fundamental contribution to the drafting of a personological profile of offenders is victimology, which lays its foundations in the study of the victim with the tools of applied psychology. The definition of victimology varies from author to author, but it is basically a collection of the most complete possible history of/and victim/s, including his lifestyle, personality traits, information about the family environment, (Wilson and Seaman 1990). Every answer given to these questions represents further information on the possible criminal. At this point, it is appropriate to deepen in detail the treatment of psychopathology of perpetrators of serious crime. Classically it was spoken of responsibility "psychopathic" or



"sociopathic" to indicate those personalities characterized by difficulties of adaptation in any environment, behavioural instability, precariousness in the affective relations, ease of passage to the act, such as scams, robberies, murders, carried out coldly and with brutality; in the face of such examples there has also been talk of "perverse" personalities. Schneider (Andreoli 2004) identifies the disorder "where there is suffering, for the patient and for others, caused by the personological anomaly", distinguishing psychopathic personalities, which "make society suffer" from those who "suffer". In the course of this century, different fields of study have been studied, which have enhanced affective-behavioral aspects (Douglas 2000), subjective aspects (Abrahamson 1973), but also cognitive and constitutional aspects until the most recent bio-modelpsychosocial behaviour proposed by Cloninger (1993). The term "psychopath" fell into disuse in the following decades, until being completely eliminated and replaced in the various Diagnostic and Statistical Manuals of Mental Disorders (DSM) by the generic diction of personality disorders, intended as a hardening of the pattern of daily behavior with the constant presence of maladaptation and subjective suffering. Sociopathic personality is thus divided into behavioral behaviors characterized by alcoholism, sexual deviations, antisocial and dissocial reactions. Subjects with an "Antisocial Personality Disorder" have a behavior characterized by frequent acts of aggression and intolerance to social norms (Velotti 2015). They also tend to be insensitive to other people's feelings and intolerant to the frustrations they respond to with violence; they are reckless and careless about their own safety and that of others and are rarely able to maintain stable relationships over time. The most modern interpretation, certainly restrictive, indicates that the peculiar trait of the subject with "Antisocial Personality Disorder" is the absence of guilt: this is why we can speak of "antisocial trait" but the diagnostic criteria for Antisocial Disorder are not met on the psychodynamic level (Fornari 1989). Among the various personality disorders, to present the closest and constant relationship with aggressive and violent behaviors are the Antisocial Disorder, which with high frequency is associated with hetero-aggressive behaviors, the Borderline, for the characteristics of instability and ease of transition to the act (Kernberg 1987) and the syndrome of "malignant narcissism" (Fornari 1989), characterized by a malignant sense of omnipotence and invincibility, the feeling of impunity, lack of empathy and moral sense, prevalence of a lived in which "everything is feasible" in order to satisfy their impulses. Borderline Disorder develops more on the psychophysiological side, characterized by an impulsive dis-regulation, an emotional instability with marked traits of mood reactivity, a lack of control over anger, with even



violent expressions of the same, and an important difficulty in interpersonal relationships (Gunderson and Hoffman 2010). It is also essential to mention other psychological contributions that have provided interpretative paradigms in the field of criminology. Among all, psychoanalytic theory, which offers an interpretation of crime linked to the psychological structure and dynamic mechanisms acting in man. According to Dazzi and Madeddu (2009) antisociality, and consequently criminal behavior, would constitute a personological predisposition, the result of interactions of the subject, with the environment, not separately from the components of the subject itself and aroused to express themselves when the control requests lose effectiveness. In particular, criminal behavior would be put in place when the lipid or aggressive drives of the Es overcome the opposing pressures towards social compliance dictated by the Super-Me or when the narcissistic components are so whipped to induce a passage to the act, perceived and lived as a sort of heroic act. Crime can thus be interpreted as a pathology of the Super-Ego, in whose realization of structure the process of identification with socio-parental models, but also more modern, plays a fundamental role, as the expression of malignant narcissistic traits of pathological significance (Giusti and Bianchi 2010). Classically, the psychodynamic interpretation of the criminal fact takes into account the release from super-controlegoic, the decrease of the ability to delay the drives by the ego and the production of the id of instinctual drives particularly uncontrollable and virulent; in today's reality we are increasingly faced with subjects that are devoid of internal references, not for the failure of the same, but for the real absence of internal representations validating a socially adequate behavior. According to other authors, environmental stimuli and conditionings, in the behavioral perspective of stimulus-response, root in the individual elements related to criminal behavior, through the mechanism of reinforcement (Della Sala and Beschin 2007). Within the vast field of criminology, in literature there is a wide interest of scholars particularly focused on psychological profiles of subjects who have committed serial murders, tragic form and complex human destructiveness. Serial killer classifications consider a personality, ranging from a perverse pole to a psychotic pole. It is now classic the description made by Holmes and De Burger (1985) of the different types identified through the analysis of the motivations and incentive type that inspired the work of the killer. They describe a serial killer "hallucinated", psychotic subject with serious detachment from reality that commits completely incomprehensible acts, with scenes from the chaotic presentation. This type of killer can be forced to kill by voices or visions, which can also have only temporary character. He is driven to act by his own inner motives, because something deep within his personality drives him to do so. His victim is in most cases unknown, being a relatively fortuitous and random selection. The same classification also identifies the serial killer "missionary": non-psychotic subject, who manifests a compulsion to kill that type of people in his opinion worthy of being exterminated. He consciously decides to carry out the murders, almost a sort of "mission", to obtain a psychological benefit. The murderer in this way is convinced of the correctness of his actions, which comes to him from his own system of values. This killer does not have the same detachment from the reality of the hallucinated serial killer, he is largely in



contact with reality, which takes charge of freeing from a certain group of people, to him usually strangers. Another type of serial killer is the serial murderer "hedonist", where the hedonist is intended to obtain pleasure through a series of aggressive acts. Among them, for the sex-oriented killer, sexual justification represents the ultimate goal and the primary role in murder. The motivations stem from an inner need to kill and satisfy one's compulsive mechanisms, because of its need for sexual satisfaction. The second type of "hedonist" acts for the sake of the thrill, so he feels a sense of gratification when the victim reacts with pain and horror to his acts. The killer in search of extreme emotions needs his victim to be alive and aware of what is happening to get full enjoyment; in fact, most of the pleasure is derived from the very process behind the killing, rather than from the killer himself. The third type of serial killer "hedonist" instead kills for personal gain, ie for reasons of personal convenience, such as money, economic interests, insurance premiums or other. These are expectations of material gain, while psychological gratification comes from the pleasure of obtaining these profits through the murder of another person (Leccese 2001). This summary description of the different types of serial killers can be considered an example of the psychodynamic elements that should be taken into account in the drafting of a personological profile in criminology. It is understood, of course, that only in the event that the crime scene is sufficiently documented and the evidence shows peculiar characteristics can a criminological profile be made as close as possible to the perpetrator. This means that the scientific and physical reconstruction of the scene of the crime must be the starting point of the observation and all the highlighted elements must match the deductions made.

#### **4. The role of forensic medicine: the inspection**

An important factor for the acquisition of useful elements is the on-site inspection, a forensic operation, which, unfortunately, is very difficult for a forensic psychiatrist in Italy to be able to participate. In order to be of criminological value, the inspection of the scene of a murder must be carried out in accordance with general criteria of proper conduct in order to ensure the preservation of evidence, with particular attention to those that can be useful clues for the reconstruction of the criminal's personality and modus operandi. Each activity carried out during the site inspection is defined as "that set of activities, of a scientific nature, aimed at the preservation of the state of the places, the search for and the insurance of the things and traces relevant to the crime, useful for the identification of the

offender and/or the victim, as well as for the complete reconstruction of the dynamics of the event and for the assessment of the circumstances in which it took place, also in relation to the verification of the operative modalities of the offender" ( Dobosz 2013). The on-the-spot inspection is a planned investigation among the urgent investigations and is a means of searching for evidence; if the judicial police are to carry out acts or operations requiring specific technical competence, may make use of suitable persons who cannot refuse their work. Therefore, figures such as the doctor, general practitioner or forensic specialist or psychiatrist, can be called to intervene at the scene of a murder and must provide their expertise in inspections (Lorè 2012). It is important, therefore, to know the methodology behind the inspection. From this brief description it can be inferred how important it could be for the forensic psychiatrist to participate in the operations of medical-legal importance in order to carry out a psychopathological profile of the offender; there could be in fact in the environment nuanced elements or seemingly insignificant details that escape precisely because they do not possess those characteristics of concreteness such that a forensic psychiatrist is used to.

## **Conclusions**

The psychological profile of an offender is a complex activity that requires specific empirical and theoretical skills. Inevitably, a psychological profile may help the investigative bodies to narrow the field of investigation, but it can never, if not rarely, provide conclusive elements for the investigation. According to De Luca (2000), FBI research - on how useful it is to write a psychological profile - reported that in 72% of the investigations the profile addressed the same; in 20% the profile was useful to draw up a list of suspects; in 17% of cases contributed directly to the capture of subjects. It is important to keep in mind that a psychological profile is not comparable to a psychiatric evaluation, because the psychological profile has a deductive retrospective character, while the expert report is a specialist examination on a subject present, carried out with a methodology more closely linked to clinical activity. It is becoming increasingly clear that criminology is today an interdisciplinary science, in which legal, clinical and social disciplines collaborate concretely. It is to be hoped that these areas of research do not simply come together, but that there will be a real reciprocal cultural and methodological interchange. It is in this dynamic that interdisciplinary research in criminology will find ample opportunity for future development.

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# Cross-border Interoperability and Digital Identity Management in the EU Digital Single Market

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## Abstract

This paper pursues the main objective of analyzing the implications of cross-border interoperability as laid down by the article 12 of the eIDAS regulation, on the requirement for secure and trusted pan-European digital identity management system. Both doctrinal and economic legal reasoning methods are mobilized in a complementary approach. Findings suggest that at some cost of cyberspace sovereignty of each Member States, cross-border interoperability need to be in compliance with mutual recognition, personal data protection, net neutrality and functional equivalence principles to faster a more trustworthy, secure and lawful pan-European ID ecosystem. However to incite and emulate other stakeholders aside of Member States, to adopt behaviors that enhance interoperability and make more social welfare effects of digital single market, the EU has to find an optimal trade-off between available interoperable standards and requirement of privacy of personal data ownership and intellectual property of electronic ID software.

**Keywords:** Cross-Border Interoperability, Digital Identity, Mutual Recognition Principle, Principle of Functional Equivalence, Legal interoperability, Economic analysis of Digital ID interoperability

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## 1. Introduction

The interoperability of digital contents in general, and electronic identity systems in particular, are the crucial requirement for the success of the EU Digital Single Market<sup>1</sup>. As

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<sup>1</sup> See DIRECTIVE (EU) 2019/770 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 May 2019 on certain aspects concerning contracts for the supply of digital content and digital services (OJ L 136, 22.5.2019, p. 18) and

it was mentioned earlier<sup>2</sup>, one of force at play in the making of an interoperable digital ID system, is the role of law. Moreover, in the context of European Union, the interoperability is of paramount importance<sup>3</sup>.

Four years after the starting of the XXI<sup>st</sup> Century, the ancestor of the Digital Single Market, the European Information Society, a project of European Commission ordered an interdisciplinary research on electronic identity issues. A research consortium named the 'Future of Identity in the Information Society' evidenced that identity is changing. Indeed, with the digitization of information process, issues regarding the complexity of data transfer, the security and reliability of electronic identification schemes, become more preponderant.

Recently at the International level, concerns about digital Identity had been emphasized by the 2019 World Economic Forum, as both frontier for economic growth and a corn-stone for a regulated, secured, well-functional and sustainable digital economy, digital ecosystem and information and/or knowledge society.

Since the international awareness to go digital and to enhance internet economy, issues about the cross-border legal recognition of IdM and trust services between interconnected economies, cultures and societies are growing. Following recommendations from the 58<sup>th</sup> session of the UNCITRAL's working group IV (Electronic Commerce), the 59<sup>th</sup> session of 8-12 April 2019 in New-York have drafted [Provisions on the Cross-border Recognition of IdM and Trust Services](#)<sup>4</sup>.

This intention demonstrates an international willingness and strategy from the UNCITRAL to propose to Member State a Model Law in order to fill some legal vacuum regarding interoperability and mutual recognition of electronic identity and trust services, data portability and privacy in the faster and changing digital Economy and knowledge society.

Unlike, intentions from UNCITRAL Working Group IV on electronic commerce, the Parliament and the Council of European Union anticipated since 1999, the legal issues related to IdM and trust service. Indeed, with the repeal of the Directive 1999/93/EC, the REGULATION (EU) No 910/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 July 2014 on electronic identification and trust services (eIDAS) for electronic transactions in the internal market, entered into force on all the EU cyberspace by the 1<sup>st</sup> July 2016. The main reason for this change in legislation at both the

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REGULATION (EU) No 910/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC (OJ L 257, 28.8.2014, p. 90-92).

<sup>2</sup> John Palfrey and Urs Gasser (2007) Digital Digital Identity Interoperability and eInnovation, 33-34. Retrieved on 20 may 2020 from <https://cyber.harvard.edu/pubrelease/interop/pdfs/interop-digital-id.pdf>.

<sup>3</sup> Norberto Nuno Gomes de Andrade, Legal Aspects in Norberto Nuno Gomes de Andrade et al. Electronic Identity, (Springer 2014) 7

<sup>4</sup> UNICITRAL, Draft Provisions on the Cross-border Recognition of IdM and Trust Services (2019).

Retrieved on 26 May 2019, available on <https://undocs.org/en/A/CN.9/WG.IV/WP.157>





level of competence and scope of power, and the innovation, is to facilitate the promotion and faster development of cross-border online trust services.

Besides, this target, it is expected to lead to more transparency, less or ideally no-fragmentation and security inside the EU Digital Single Market, and to enhance the EU competitiveness in the globalized world. In fact, to get most out of the digital technologies, and therefore to build an effective, efficient, sufficient and secured Digital Single Market (DSM)<sup>5</sup>, the eIDAS regulation could be seen as one of crucial tools against obstacles such as the fragmentation of the digital market, the lack of interoperability<sup>6</sup> and the rise in cybercrime in the European Union<sup>7</sup>.

The lack of interoperability is a corn-stone issue of digitization in the EU Single Market. The European Commission illustrated its extent in the following quotes: “The Digital Agenda can only take off if its different parts and applications are interoperable and based on standards and open platforms”<sup>8</sup> Although, one of the recommendations from the guidance on the New European Interoperability Framework stressed the same issue. According to the European Commission, a useful framework has to ensure that both existing and new legislations don’t compromise interoperability efforts<sup>9</sup>. Unless, its advantages<sup>10</sup>, to made interoperable systems and devices within the EU DSM remain a puzzling case. Indeed, the interoperability is not suitable for everybody all the time<sup>11</sup>. It

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<sup>5</sup> See European Commission, A Digital Agenda for Europe (2010).

Retrieved on 3 July 2018, available on <https://ccdcoe.org/sites/default/files/documents/EU-100519-DigitalAgenda.pdf>.

<sup>6</sup> “... interoperability denotes a system, product or service to communicate and function with other (technically different) systems, products or services” see Wolfgang Kerber and Heike Schweitzer, *Interoperability in the Digital Economy*, (2017) 8 JIPITEC 39-40.

<sup>7</sup> OJ L257, REGULATION (EU) No 910/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market, 73-114 Recital 4.

<sup>8</sup> European Commission, *Idem*, 2010, p. 10.

<sup>9</sup> European Commission, *New European Interoperability Framework*, Luxembourg, Publication Office of the European Union, 2017.

<sup>10</sup> Such as the promotion of innovation, the widening of consumer choice or ease-of-use and the enhancement of competition (See Martina Barbero, Diana Cocoru, Hans Graux, Annette Hillebrand, Florian Linz, David Osimo, Anna Siede and Patrick Wauters, *Study on emerging issues of data ownership, interoperability, (re-)usability and access to data, and liability*, European Union, 2018).

Retrieved on 28 June 2018 from <https://publications.europa.eu/en/publication-detail/-/publication/74cca30c-4833-11e8-be1d-01aa75ed71a1/language-en>

<sup>11</sup> See Urs GRASSER and John Palfrey, *Breaking Down Digital Barriers: How and When ICT Interoperability Drives Innovation* (Berkman Center Publication Series 2007) Retrieved on 28 June 2018 from <http://nrs.harvard.edu/urn-3:HUL.InstRepos:2710237>.

can open to several issues linked to Cyberspace Sovereignty<sup>12</sup>, to the no one-size-fits-all way to achieve it in the Information and Communication Technology (ICT) context<sup>13</sup>, to the existence of two levels (primary and secondary) of intertwined barriers characterized in three obstacles<sup>14 15</sup>.

In the same line, the declaration of the Vice-President in charge of Digital Single Market reported by the European Commission on 28 September 2018 pointed the issues in cross-border interoperability as follow: *'Europe needs to speed up on eID. Using eIDs increases trust and cuts cost. Now only people and companies from the two countries can access and use online services everywhere in Europe. The sooner the remaining EU countries notify their eID schemes, the quicker it will help all Europeans. I would like to see SMEs, in particular, make more use of eID and electronic signatures, to protect and improve their activities across Europe'*<sup>16</sup>.

These wishes demonstrate that the cross-border interoperability which was supposed to be compulsory by the end of September 2018, took time to be effective. Only, Germany and Italy had fulfilled with the notification of their identification schemes for mutual recognition in due time. Indeed, the article 12 of eIDAS regulation establishes that national electronic identification schemes shall be interoperable between the Member States. However, even if recitals 5, 12 and 54 recognize the necessity of cross-border interoperability and mutual recognition to make useful and secure identification, authentication and qualified electronic signature, it leaves an unclear provision on other kind of trust services and electronic documents. Is there any ambiguity in the regulation or does it remain coherent with its broad objective to enhance electronic transactions in EU Digital Single Market? Do legal provisions as stated in Article 12 (cooperation and interoperability) ensure less-risky management of information processes in the environment of pan-European Identity Systems in the EU Digital Single Market?

Unlike the Directive 1999/93/EC, the regulation has a self-executing power on all pan-European identity cyberspace. This change in legislation from minimal harmonization toward a unification of national legal systems in Europe, evidences and raises the question of legal interoperability.

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<sup>12</sup> "Cyberspace sovereignty is a natural extension of state sovereignty in the cyberspace hosted by the ICT infrastructure located in the territory of a state; namely, a state has jurisdiction (right to interfere in data operation) over ICT activities (in respect of cyber roles and operations) present in cyberspace, ICT systems per se (in respect of facilities), and data carried by the ICT systems (virtual assets)." see Binxing Fang, *Cyberspace Sovereignty: Reflections on Building a Community of Common Future in Cyberspace* (Springer-Science Press 2018) 83.

<sup>13</sup> See Urs Grasser and John Palfrey, *Idem*, ii.

<sup>14</sup> Technical: interoperability and portability, legal (contractual: data ownership, access to and re-use data, etc. and non-contractual: extra-contract liability) others (skills, competition, pricing)] (See Martina Barbero, Diana Cocoru, Hans Graux, Annette Hillebrand, Florian Linz, David Osimo, Anna Siede and Patrick Wauters, *Idem*, 15).

<sup>16</sup> European Commission, *Cross-border digital identification for EU countries: Major step for a trusted digital single Market*, (Published online 28 September 2018)

Retrieved on 10 October 2018 from <https://ec.europa.eu/digital-single-market/en/news/cross-border-digital-identification-eu-countries-major-step-trusted-digital-single-market>



Beyond the issues of trust and security of pan-European Identity and legal interoperability, the legal reform drained by the eIDAS aims also to incite behaviors of all stakeholders of the European Digital Single Market toward an efficient and worthy digital integration. Therefore, it is questionable to understand the probable schema of impact of the article 12 on social welfare.

This research aims to conduct a legal analysis of issues raised by cross-border interoperability in the environment of digital identity management in Europe. The relevance of this exercise is evident since, without an optimal level of cross-border interoperability of different identity systems involved in Europe, promises of both digital market single strategy in particular and the 2020 digital agenda for Europe will be impossible to fulfil.

The second section tries to clarify the main concepts related to this research. The third section presents the analysis of article 12 on interoperability in link with article 6 to 9 on electronic identification. The fourth section presents a tentative of comparative analysis of legal interoperability between three closer legal system of EU, Italy, France and Spain. The fifth section made a tentative of criteria on which an economic analysis could rely on. And the last section contains some conclusive remarks.

## **2. Terminology: meaning and clarifications**

As elements of information process in the digital identity ecosystem, concepts such as electronic identification and electronic authentication, validity, long term preservation (or conservation) and cross-border interoperability don't cover the same technical signification. They are differently conceptualized according to a legal point of view, compared to its complementary and intertwined ones: economic, sociological or computer sciences meanings<sup>17</sup>.

In the frame of the Regulation eIDAS, 'electronic identification means the process of using person identification data in an electronic form uniquely representing either a natural or legal person or a natural person representing a legal person'<sup>18</sup>.

Sullivan<sup>19</sup>, perceives the digital identity as context specific and linked to transaction identity. From this perspective, digital or electronic identification supposes a legal or

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<sup>17</sup> On the economic, sociological and IT treatment and conceptualisation of the Digital Identity see Patrick Waelbroeck, Julie Denouël and Maryline Laurent, Digital Identity in Maryline Laurent and Samia Bouzefrane (Eds) Digital Identity Management (ISTE Press and Elsevier Ltd, London-Oxford, 2015) 1-45

<sup>18</sup> OJ L257, Idem, 83

commercial transaction where the key-element is digital identity. Sullivan and Stalla-Bourdillon consider the ‘digital identity ‘... (as) an identity which is composed of information stored and transmitted in digital form’<sup>20</sup>.

Unlike Sullivan, Finocchiaro<sup>21</sup> conceptualizes electronic identity as expressed in the eIDAS. First of all, she recalls the double perspective of identity from the legal point of view. Identity has a subjective and objective sense. The electronic identity as defined in the eIDAS belongs to the objective view. Data related to such identity is objectively gathered for identifying a person in his social relations and his transactions with public administration. Beyond that, this choice of conceptualization helps to preserve the public interest by allowing third-party to verify with certainty the identity of other subjects.

E. Netter<sup>22</sup> went a bit far and mentioned that the trend of digital, is blurring barriers between the two traditional functions<sup>23</sup> of identity in private law. In such a context digital identity doesn’t refer only to *steady or stable identity* (identification elements owned by a subject at his birth) but more to a *built identity* (accumulated personal information of a subject through his digital activities).

Authentication is located in the continuity of electronic identification. It ‘means an electronic process that enables the electronic identification of a natural or legal person, or the origin and integrity of data in electronic form to be confirmed’<sup>24</sup>. For Smedinghoff, Authentication of identity comes down to addresses the question ‘What can you do?’ Therefore, ‘Authentication of identity (or selected identity attributes) is not just an end in itself, but rather a process often used to authorize some grant of rights or privileges, to facilitate a transaction or decision, or to satisfy an evidentiary obligation’<sup>25</sup>.

Contrary to Smedinghoff, Mik based his arguments on the multidimensional<sup>26</sup> conception of authentication. Thus ‘authentication involves the presentation of authentication information that confirms the association between a person and an identifier.

<sup>19</sup> Clare Sullivan, ‘Digital identity –From emergent legal concept to new reality’ (2018) 34 Computer Law & Security Review 723–731.

<sup>20</sup> Clare Sullivan and Sophie Stalla-Bourdillon, ‘Digital identity and French personality rights Away forward in recognising and protecting an individual's rights in his/her digital identity’ (2015) 31 Computer Law & Security Review 268.

<sup>21</sup> Giusella Finocchiaro, ‘Una Prima Lettura Del Reg. ue n. 910/2014 (c.d. eidas): identificazione on line, firme elettroniche e servizi fiduciari (reg. UE n. 910/2014)’ (2015) 3 *Le nuove leggi civ. comm.* 420-421.

<sup>22</sup> Emmanuel Netter, *Numérique et grandes notions du droit privé*, (CEPAS, Paris, 2019), 47.

<sup>23</sup> (1) Identify a moral or naturel person in the legal system for liabilities and claiming and (2) Deliver a social representation to a natural person vis-à-vis of others (see Emmanuel Netter, *Op cit*, p. 51)

<sup>24</sup> OJ L257, *Idem*, p. 84.

<sup>25</sup> Thomas Smedinghoff, ‘Solving the legal challenges of trustworthy online identity’ (2012) 28 Computer Law & Security Review 534.

<sup>26</sup> “Authentication” has multiple meanings: to “establish as genuine” or to “associate oneself” with a document, as in “to sign from Oxford English Dictionary; Stephen Mason, ‘Validating Identity for the Electronic Environment’, 20 CLSR 3 at 166 (2004) quoted by Eliza Mik, ‘Mistaken identity, identity theft and problems of remote authentication’ in e-commerce’ (2012) 28 Computer Law & Security Review 397.



Authentication information consists of something a person knows (password, PIN), possesses (token, smartcard, passport) or is (biometric data)<sup>27</sup>.

However to make the EU Digital Single Market working, digital identity systems of different Member States should be interoperable. Nevertheless, interoperability is not also defined by the eIDAS Regulation. The position of European Commission on its meaning was however broadly defined in the DIRECTIVE 2009/24/EC ‘... as the ability to exchange information and mutually to use the information which has been exchanged’<sup>28</sup>. It is recently the DIRECTIVE (EU) 2019/770, which laid down its meaning. “Interoperability’ means the ability of the digital content or digital service to function with hardware or software different from those with which digital content or digital services of the same type are normally used”<sup>29</sup>.

By mentioning the means or instruments by which information have to be exchanged or used, Palfrey and Grasser, make it a bit clear. Interoperability is ‘... the ability to transfer and render useful data and other information *across systems, applications, or components*’<sup>30</sup>.

Nevertheless, there is no one-size-fits-all definition of it<sup>31</sup> and a broader definition of interoperability can hide some different facets of its multidimensional nature. Interoperability can be understood using four layers: technologies, data, human beings and institutions<sup>32</sup>.

Unlike the precedent broader definition, the digital identity management<sup>33</sup>-focused perspective refers to Digital ID interoperability “...as a constantly shifting interconnection among ID users, ID providers, and ID consumers that permits the transmission of Digital ID information between them via a secure, privacy-protected channel”<sup>34</sup>.

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<sup>27</sup> Eliza Mik, *Ibidem*, 397

<sup>28</sup> EC,

<sup>29</sup> OJ L 136, *Idem.*, p. 18

<sup>30</sup> John Palfrey and Urs Grasser(a), *Idem*, p.5

<sup>31</sup> John Palfrey and Urs Grasser (b), *Interop: The Promise and Perils of Highly Interconnected Systems* (Basic Books 2012) 5

<sup>32</sup> J. Palfrey and U. Grasser (b), *Op.cit.*, p. 6

<sup>33</sup> Digital Identity management is a system which allows ‘...to maintain the integrity of identities through their life cycles in order to make the identities and their related data (e.g., authentication results) available to services in a secure and privacy-protected manner’ Elisa Bertino and Kenji Takahashi, *Identity Management* (Artech House 2011) 23

<sup>34</sup> John Palfrey and Urs Grasser(a), *Op. cit.*,

retrieved on 18 January 2020 from <https://cyber.harvard.edu/pubrelease/interop/pdfs/interop-digital-id.pdf>

The previous definition clarifies that technologies and data layers are linked. In this frame, interoperability refers to its syntactic and semantic dimension<sup>35</sup>. It means the feature of systems to connect each other in an agreed-upon interface with the possibility to render data useful on different devices (cellular, computer, tablets,) and meaningful according to information exchange<sup>36</sup>.

Besides this information technology view, interoperability requires otherwise human and institutional<sup>37</sup> interaction as well in order to be effective<sup>38</sup>. To be successful, human being are willing to put effort into working together. An example of a human layer is communication through a common language. The human layer can be considered as the most abstract element of interoperability but the more intelligible.

Unlike the human layer, the institutional aspect of interoperability is also considered as the highest and most abstract layer which allows the society system to engage effectively<sup>39</sup>. At this stage, the legal system plays the role of collaboration and exchange of data for example without making parties involved identical. For instance, if we consider, two companies located in two different countries, for example, Namirial SPA in Italy and Cryptolog International SAS in France, they are not obliged to be under a same jurisdiction to allow their respective clients to conclude a contract by signing electronically. One thing is only needed at this stage, to make the French and Italian jurisdictions, able to interoperate legally speaking for providing a non-attackable electronic signature.

The legal interoperability is, therefore, ‘...the process of making legal norms work together across jurisdictions’<sup>40</sup>. Unlike, the Palfrey and Users's definition, Santosuosso and Malerba explore an in-depth and ontological approach to legal interoperability which raises some issues. Their proposition emerges from the concept of cultural interoperability (ex. European Union)<sup>41</sup>. This shift is based on the conception of law as a sort of word-made world, on the multilingualism drained by the phenomena of globalization, and the Philip Jessup’s idea of transnational law. Three situations can be distinguished from these perspectives:

1. ‘Same legal system (or State)/ Same language
2. Same language/ Different legal systems
3. Different legal systems/ Different languages’<sup>42</sup>

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<sup>35</sup> Wolfgang Kerber and Heike Schweitzer, *Idem*, 41

<sup>36</sup> Reconstructed upon John Palfrey and Urs Grasser, *Ibidem*, 6 and Wolfgang Kerber and Heike Schweitzer, *Idem*, 41

<sup>37</sup> Where legal system played a strategic position among others social systems

<sup>38</sup> John Palfrey and Urs Grasser (b), *Idem*, 5 and Wolfgang Kerber and Heike, *Ibidem*, 41

<sup>39</sup> John Palfrey and Urs Grasser (b), *Ibidem*, p.6

<sup>40</sup> John Palfrey and Urs Grasser, *Idem*, (b) *Op. cit.*, p.178

<sup>41</sup> Amedeo Santosuosso and Alessandra Malerba, ‘Legal Interoperability as a Comprehensive Concept in Transnational Law’ 6 *Law, Innovation and Technology* 57

<sup>42</sup> Amedeo Santosuosso and Alessandra Malerba, *Idem*, p. 59



The third situation refers to the case of the European Union with legal provisions drafted in 23 different languages. With a challenge like this, the linguistic issue has first to be solved in order to minimize as possible as it can a misinterpretation. However, when a case law raises or a tort is consumed between two states members or two citizens of different Member States, both penal and civil procedures can be non-homogenized between jurisdictions. The legal interoperability will be solved by international public law for torts between Member states and international private law for torts between two different national legislations. The eIDAS works as a transnational law, tries to solve issues raised by electronic identification and trust services between Member states of the European Union. Nevertheless, the eIDAS regulates trust services such as electronic signatures, electronic seals, and certified websites which are supposed to be provided by private business. Therefore, a conflict between eIDAS and two particular national legal systems could raise.

The transnational law idea of Jessup, but more the legal features<sup>43</sup> of cross-border effects of digital information identified by Johnson and Post<sup>44</sup>, open the path to the central concept of this research, cross-border interoperability.

Recently, Silveira and Covelo de Abreu argued in the same line to support the transnational aspect of law which made a change in the policy of European Union to faster digital agenda by softening gaps between national legislation and actions<sup>45</sup>.

The eIDAS regulation establishes principles of the internal market, neutral technology and mutual recognition between Member States to overcome issues linked to barriers and fragmentations in the EU area of Digital Single Market (DSM). The market even digital is based on transactions. In this sense, cross-border interoperability is expected to play a corn-stone role without which at this stage of technology information development it could be impossible to build the EU DSM.

Cross-border interoperability is not just a matter of technical standardization but also of legal interoperability<sup>46</sup>. For the case, 'An electronic document is a dual technical and legal

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<sup>43</sup> Johnson and Post mentioned that since the cyberspace is bounded by screens and password rather than physical markers and undermined therefore the feasibility and legitimacy of law based on geographic boundaries, it required a new perspective of law and its institutions.

<sup>44</sup> David Johnson and David Post, 'Law and Borders. The Rise of Law in Cyberspace' (1996) 48 *Stanford Law Review* 1367-1402. .

<sup>45</sup> Joana Abreu and Alessandra Silveira 'Interoperability solutions under Digital Single Market: European e-Justice rethought under e-Government paradigm' (2018) 9 *European Journal of Law and Technology* .

artefact that depends on a national legislation system and “lives” within a national platform of electronic documents<sup>47</sup>. For example, in the paper environment system, to conclude a contract between two legal persons located in remote countries, documents were elaborated and then printed to be empowered by signature and then sent by post to other part involving in the contract to sign also. Otherwise, the two legal persons have to meet physically to sign. The other alternative is to scan the document pre-signed by the first party, and send it to the second party and so and so on. However, the legal value of such digitized document can be contested but also the digitization process in such way can be costly for a firm or a citizen to complete such a transaction and not efficient for the paperless environment of modern business. To solve this issue, trust service providers developed documents made digital first-in-a full electronic environment. Nonetheless, to be empowered and therefore to acquire a legal validity, electronic signature has to be putting on them by both two parts involving in two different jurisdictions. Indeed, electronic documents are not created for private use but exchange purposes between various entities participating in the contract.

In this sense, Cross-border interoperability can be envisaged as both technical and legal interoperability which permit an easy exchange and mutual recognition of electronic documents or data with diverse format processor between different national legal systems in the strict respect of the principle of functional equivalence and net neutral technology, regarding their legal power.

### **3. Cross-border Interoperability and electronic identification and authentication**

In response to the recommendation made under the recital 6 of eIDAS, unlike its proposal form adopted by the European Commission which treats the issue of interoperability as a simple point of coordination (see Article 8)<sup>48</sup> between the Member States, the final version of eIDAS published at the official journal devotes a half part of the article 12<sup>49</sup> to interoperability.

As a crucial point for DSM strategy and innovative dispositions comparing to the e-signature directive, the provisions on interoperability at the article 12 paragraph 3 is embedded in the general principles adopted under the eIDAS regulation. Those principles are neutral technology (Article 12, 3, a, and one of key principle of UNCITRAL Model Law on electronic commerce), internal market (Article 12, 3, b and Article 4), mutual recognition (Article 12, 1) and protection and privacy data principle (Article 12, 3, c and d).

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<sup>46</sup> Jeremy Besson, Adomas Birstunas , Antanas Mitasiunas and Arunas Stockus, ‘SignaTM – Towards Electronic Document Cross-Border Interoperability’ (2015) 17 Applied Computer System 46

<sup>47</sup> Jeremy Besson, Adomas Birstunas , Antanas Mitasiunas and Arunas Stockus, *Ibidem*,

<sup>48</sup> European Commission, Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on electronic identification and trust services for electronic transactions in the internal market, 2012

<sup>49</sup> OJ L257, *Idem*, p. 90





Talking about the level of coherence with legal system and standards of Europe, Gomes de Andrade tried to find a ‘legal anchor’ to the idea of a pan-European electronic identity within the Lisbon Treaty<sup>50</sup>. After evoked some doubts on the Article 77 (3) of the TFEU to all-encompass the legal basis for an interoperable European electronic identity due to the peculiarities of data movement freedom within the European Internal market comparing to persons and goods, he argued that a new regulation to replace the e-signature directive is needed to propose a legal framework for cross-border recognition and interoperability of secure e-Authentication systems<sup>51</sup>.

Beyond, the reason above highlight something interesting for our analysis. The principle of mutual recognition is a fundamental basis to ensure that the legal framework will provide interoperable and secured e-identification, e-authentication and cross-border recognition. Indeed, the Principle of mutual recognition supposed that Member states should cooperate and collaborate by exchanging information, experience, good practice, and technical requirement related to interoperability and assurance level (see article 12 paragraph 6 a, b, c, d). It can be deduced that if the principle of mutual recognition is applying each time a member state notifies its electronic identification schemes, as it the case for only 13 countries out of 27 Member State<sup>52</sup>, by this act, it is obliged to collaborate with the other member states for their common operational security standards, and therefore to trust each other. The positive consequence could be to make electronic identification schemes secured and for a high level of trust and assurance within the pan-European electronic identification for both public services but also private trust service providers.

However, the mutual character of electronic identification process at the level of Europe by a member state results in the loss of a part of its cyberspace sovereignty for the profit of the European Community. Indeed, the notification of the electronic identification schemes have to be done without undue delay (Article 9, 1)<sup>53</sup> but the request to remove, is with a delay of one month at least (Article 9, 4)<sup>54</sup>.

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<sup>50</sup> Nuno Gomes de Andrade ‘Regulating electronic identity in the European Union: An analysis of the Lisbon Treaty’s competences and legal basis for eID’, (2012) 28 Computer Law & Security Review 153

<sup>51</sup> Nuno Gomes de Andrade, *Idem*, pp.158

<sup>52</sup> See <https://ec.europa.eu/cefdigital/wiki/display/EIDCOMMUNITY/Overview+of+pre-notified+and+notified+eID+schemes+under+eIDAS> (last update on Jan 02, 2019)

<sup>53</sup> OJ L257, *Idem*, p. 89

<sup>54</sup> OJ L257, *Idem*, p. 90

Thus, the principle of mutual recognition ensures in the context of the provision of article 12 that Member States should care about assurance level, security and enhancement of trust within the pan-European electronic identity system. Instead of that, Member states or a third party involving in the notification process are liable for any damage as set by article 11.

When we back to article 12 paragraph 1, the interoperability is about national electronic identification schemes. This provision is in coherence with the technological approach to interoperability as defined previously. Since it is a system, then it can interoperate with another system regardless of the mean and devices of electronic identification. The later can be material or immaterial and contains person identification data which is used for an online service<sup>55</sup>.

The interoperability between electronic identification schemes is about personal data. Thus, the process of cross-border identification and authentication should care enough about the principle of data protection. The article 12 paragraph 3, points c and d on criteria to be met by the interoperability framework is coherent with this vision on privacy. By the way, the legislator at the point d of the evocated article refers to the Directive 95/46/EC. The later was understandable at the moment of adoption. However, the directive was repealed and replaced by the REGULATION (EU) 2016/679 on the protection of natural persons about the processing of personal data and the free movement of such data (General Data Protection Regulation-GDPR). The GDPR is effective since 25 April 2018. To avoid misinterpretation, the legislator may at the occasion of new amendment of the eIDAS to update this disposition<sup>56</sup>.

At its recital 4 of the GDPR, the legislator indicates that the right to the protection of personal data is not an absolute right and has to balance with its social functions and other rights in coherence with the principle of proportionality. The following recital No 5 and even 6 evidence that the cross-border flows of data within the Union due to the social and economic integration resulting from the functioning of the Internal Market, obligates the Member States to cooperate. This cooperation aims to ensure that personal data will flow freely, and the Member States have to keep their protection at a high level.

The vision of privacy as expressed through the principle of personal data protection have more legal certainty and stability. It guarantees that when systems are interoperated, personal data used for identification process will be highly protected and used lawfully, transparently and fairly for evocated purposes. Therefore, it understandable that the non-legislative act<sup>57</sup> which accompanied the eIDAS, to implement the interoperability framework, sets the security of personal data as primordial.

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<sup>55</sup> OJ L257, *Idem*, p. 83

<sup>56</sup> See Giusella Finocchiaro, *Il nuovo regolamento europeo sulla privacy e sulla protezione dei dati personali* (Zanichelli 2017)

<sup>57</sup> See OJL235, *II COMMISSION IMPLEMENTING REGULATION (EU) 2015/1501 of 8 September 2015 on the interoperability framework pursuant to Article 12(8) of Regulation (EU) No 910/2014 of the European Parliament and of the Council on electronic identification and trust services for electronic transactions in the internal market*



As it is evidenced at its article 6<sup>58</sup> paragraph 1, in implementing the technical framework, the European Commission will stay up on the effective application of personal data protection principles which flow through nodes. In fact, ‘Nodes play a central role in the interconnection of Member States’ electronic identification schemes’<sup>59</sup>. There are not supposed to store personal data. Here again, the European Commission intends to take all precaution about some abuses related to the reuse of personal data and others. However, technically this will increase the cost of data portability if the digital users, trust services providers and public services have to manage that in an approach closer to just in time philosophy.

Otherwise, by adopting the conception of Custers and Ursic, from the legal viewpoint, De Hert, Papakonstantino, Malgieri, Beslay and Sanchez, considered the right to data portability as the notion linked to the ability of people to reuse data across devices and services<sup>60</sup>. Therefore, since ‘the role of European Commission in incentivizing interoperability has been removed from the first proposal of the GDPR’ and the object of data portability still unclear<sup>61</sup>, the non-storage of personal data of the nodes could restrain transparency and right to interoperability for a party involving in cross-border identification process and authentication.

The exception expressed at the paragraph 2 of the same article 6 regarding the article 9 (3) of eIDAS implies that if a Member State notified after the expiry of the period, one year from the date of the implementing acts, the commission would store data within 2 months from the date of receipt of notification<sup>62</sup>.

The compliance of the interoperability of electronic identification schemes with both principles of mutual recognition, and of protection of data and privacy, offers two guarantees for the pan-European electronic identity environment. Firstly, Member states could only collaborate if they trust each other and trust within the level of assurance and

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<sup>58</sup> OJ L235, Idem, pp.3

<sup>59</sup> OJ L235, Idem, pp.1

<sup>60</sup> Paul De Hert, Vagelis Papakonstantinou, Gianclaudio Malgieri, Laurent Beslay and Ignacio Sanchez, ‘The right to data portability in the GDPR: Towards user-centric interoperability of digital services’ (2018) *Computer Law & Security Review* 203

<sup>61</sup> Paul De Hert, Vagelis Papakonstantinou, Gianclaudio Malgieri, Laurent Beslay and Ignacio Sanchez, *Ibidem*, 203

<sup>62</sup> OJ L257, Idem, p. 89

security of the interoperability building blocks. The fact that they are mutually<sup>63</sup> and individually liable about the well and secured functioning of the Digital Single Market, assure trust in e-public and e-private transactions by European citizens and trust services providers. Secondly, the devotion to data protection by both governments, the European Commission and any third-party operator, provide legal certainty and security about the right on personal data and the transparency and fairness in their uses.

The provision pointed at the article 12 paragraph 3 (a), embodies the neutral technology principle and it is in coherence with the article 7 (f). The legislator intends to promote a liberal policy in the development of technical solutions to speed up interoperability between national electronic identification schemes. However, the legislator is aware of security issues linked to the 'liberal approach'. At paragraph 4 of the same article, the Interoperability framework, clearly indicated boundaries within which this neutrality as to involve. They are the assurance levels (see article 8) and common operational security standards, and arrangements for dispute resolution. Beyond, it seems that the legislator also wants to promote innovation through an increase of technical interoperability<sup>64</sup> and to avoid unilateral solutions to interoperability issues<sup>65</sup>. They result in market failure and conflict with principles of fair competition.

The other aspect of neutral technology is located in the finality of interoperable pan-European electronic identification. From the analysis made above, it occurs that all the process of electronic identification and cross-border authentication within the eIDAS regulation, aim to deliver online services (trust services and others) in a frame respectful of digital freedom values and accountability of users, providers and public actors at the micro level. At the macro level it provides a secured DSM, flexible to manage and to cope with the risk of cybercrimes.

Nevertheless, the eIDAS regulation doesn't define what it means by online services and to which class of services it refers. The principle of mutual recognition may explain this legal vacuum. According to the later, the competence of the regulation is limited to electronic identification and authentication process<sup>66</sup>. Infact, the recital 14 sends back conditions of access and final delivery of online services to the competence of national legislation<sup>67</sup>.

Nonetheless, it is clear now that interoperability in the context of the article 12 (1-4) offers legal certainty and security for electronic identification process (identification and authentication) to be undertaken and managed in a secured, reliable, fairly and technology

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<sup>63</sup> See Article 4 (3) of OJ L 53, COMMISSION IMPLEMENTING DECISION (EU) 2015/296 of 24 February 2015 establishing procedural arrangements for cooperation between Member States on electronic identification pursuant to Article 12(7) of Regulation (EU) No 910/2014 of the European Parliament and of the Council on electronic identification and trust services for electronic transactions in the internal market, pp. 16

<sup>64</sup> See John Palfrey and Urs Grasser, *Idem*, pp. 111-112

<sup>65</sup> See Wolfgang Kerber and Heike Schzeitzer, *Idem*, 39 and 42-44

<sup>66</sup> OJ L257, *Idem*, p. 75

<sup>67</sup> OJ L257, *Idem*, p. 75



flexible (open to technology) pan-European cyberspace. This assurance of cross-border interoperability is impossible to be achieved without cooperation between Member States (Article 12 (5-9)).

However, what about trust services? Are they the online service what the legislator refers?

From the conventional sense, an online service is an information, or a service provided through the internet. According, to Cardoso and Fromm, an electronic service is a ‘service system (with elements, a structure, a behavior, and a purpose) for which the implementation of many of its elements and behaviors is done using automation and programming techniques’<sup>68</sup>. For these authors, online services are just electronic services which are performed through communication technologies by an online connection between the two sides (customer and supplier)<sup>69</sup>.

A ‘trust service means an electronic service normally provided for remuneration which consists of:

- (a) the creation, verification, and validation of electronic signatures, electronic seals or electronic time stamps, electronic registered delivery services and certificates related to those services, or
- (b) the creation, verification and validation of certificates for website authentication; or
- (c) the preservation of electronic signatures, seals or certificates related to those services;<sup>70</sup>

It can be deduced from this eIDAS’s definition that if a trust service is an electronic service and covered by the eIDAS (see article 1 (b and c)) for all the European cyberspace, then it should use communication technology to perform and, therefore it is understanding as an online service. However, there are other class of online services (e-tax payment, internet banking, e-justice, etc.) which are concerned by interoperable pan-European electronic identification without belonging to trust service classification.

It resorts that trust services regulated by the eIDAS are candidates to cross-border interoperability using the notified identification scheme agreed mutually by the European Union for only identification and cross-authentication steps. Conditions of access and

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<sup>68</sup> Jorge Cardoso and Hansjörg Fromm, *Electronic Services*, in Jorge Cardoso et al. (eds) *Fundamentals of Service Systems*, (Springer 2015) 42

<sup>69</sup> Jorge Cardoso and Hansjörg Fromm, *Idem*, 2015, p. 42

<sup>70</sup> OJ L257, *Idem*, p. 84

final delivery are from the competence of national legislation. It could raise some issue of legal interoperability. As the recital 54 aware about it<sup>71</sup>.

#### 4. Legal interoperability in Europe (Cases of France, Spain and Italy)

The problem of legal interoperability was already mentioned in 2012 in the proposal of eIDAS. The experience learned from the enforcement of Directive 1999/93/EC evidenced that "...national measures have de facto created barriers to the EU-wide interoperability of electronic signatures, and that they are currently having the same effect on electronic identification, electronic authentication and related trust services. It is therefore necessary for the EU to create an enabling framework to address cross-border interoperability and to improve the coordination of national supervision schemes"<sup>72</sup>.

Compared to France and Spain, Italy is in advanced about interoperability issues related to electronic identification. Through the 'Sistema Pubblico di Identità Digitale' (SPID), it is possible to get access to online public service with only one digital identity regardless of the device (computer, tablet or smartphones). Furthermore, it was the first with Germany to notify their electronic identification schemes to the European Commission.

The modification of legislation in 2016 has changed the DLGS 7.3.2005, N. 82 to incorporate interoperability principle within the process (see article 41), the institution of the 'Sistema pubblico di connettività' (SPC) (article 73) the management of its costs (see article 76-Bis), and clarifying its meaning<sup>73</sup>.

Paradoxically, French equivalent legislation in vigour don't respectively, even use or reserve any legal treatment to the word 'interoperabilité'. However, this is not alarming since the eIDAS regulation has a self-executing power in all pan-European cyberspace and jurisdiction.

The other issue raised by such a legal uncertainty within the two legislations is about the management of costs. The new article 76 bis of the CAD<sup>74</sup> fixes the accountability about the supporting expenses. Face to a legal vacuum in the French and Spanish legislation, one could asks how technologies, material and humans needed to support a notification scheme and to participate in collaboration and cooperation European team will be managed?

Those peculiarities revealed the consequences of the choice made by the legislator in the EU building process. In fact, according to Palfrey and Grasser, the EU form of legal interoperability is a hybrid approach or medium level, neither pure harmonization nor pure

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<sup>71</sup> OJ L257, Idem, p. 80

<sup>72</sup> European Commission, Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on electronic identification and trust services for electronic transactions in the internal market, Brussels, Unpublished pp. 4

<sup>73</sup> **DECRETO LEGISLATIVO 26 agosto 2016, n. 179 Modifiche ed integrazioni al Codice dell'amministrazione digitale, di cui al decreto legislativo 7 marzo 2005, n. 82, ai sensi dell'articolo 1 della legge 7 agosto 2015, n. 124, in materia di riorganizzazione delle amministrazioni pubbliche Retrieved on 15 November 2018 from**

<http://www.gazzettaufficiale.it/eli/id/2016/09/13/16G00192/sg>

<sup>74</sup> Codice dell'amministrazione Digitale



fragmentation<sup>75</sup>. It is visible through the eIDAS regulation about legal competences delegated to the Member States.

The French legislation on the electronic signature is based on the long tradition of the probative value of proof in Contract Law<sup>76</sup>. Although, the law was codified under the following name: ‘LOI n° 2000-230 du 13 mars 2000 portant adaptation du droit de la preuve aux technologies de l’information et relative à la signature électronique’. According to this law, the electronic signature is treated in rigorous attention to integrity and validity of proof in article 4 paragraph 3<sup>77</sup>.

It is interesting to mention that the legislator in the French case intended to adopt the recommendation from the directive prudently. By reading only this law, one may see a confusion because the type of electronic signatures is not specified. Nonetheless, the ‘Décret n°2001-272 du 30 mars 2001<sup>78</sup>’ precise clearly at its Article 1. The article 4 paragraph 3 talks about ‘la signature électronique’ supported by reliable identification process.

The article clarified that the reliability of the ‘signature électronique’ is presumed until proven otherwise if three conditions are fulfilled. The creation of the electronic signature, the identity of the signatory is ensured or authenticated and the integrity of the act (birth, death, transfer, commercial contract, etc.) is guaranteed. All of these under the conditions fixed by the ‘Conseil d’Etat’.

In an earlier comparative law study on electronic signature between France, Germany and Poland, Bierekoven, Bazin and kozlowski, highlighted the paradoxical question of the French perspective on the e-signature Directive when it was in force. The paradoxical question is declined as follow: ‘... it is possible for one EU jurisdiction or a competent court to recognize the validity of a certified signature, and another one to refuse such

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<sup>75</sup> John Palfrey and Urs Grasser, *Idem*, pp. 185

<sup>76</sup> See **Ordonnance n° 2016-131 du 10 février 2016 portant réforme du droit des contrats, du régime général et de la preuve des obligations** Retrieved from on 15 November 2018 (particularly Art. 1367) <https://www.legifrance.gouv.fr/eli/ordonnance/2016/2/10/JUSC1522466R/jo/texte>

<sup>77</sup> LOI no 2000-230 du 13 mars 2000 portant adaptation du droit de la preuve aux technologies de l’information et relative à la signature électronique Retrieved from on 15 Novembre 2018 <https://www.legifrance.gouv.fr/eli/loi/2000/3/13/JUSX9900020L/jo/texte/fr>

<sup>78</sup> The type of electronic signature and others are fixed in **Décret n°2001-272 du 30 mars 2001 pris pour l’application de l’article 1316-4 du code civil et relatif à la signature électronique** Retrieved from on the 15 November 2018 <https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=LEGITEXT000005630796&dateTexte=20170930>

recognition'<sup>79</sup>. A simple answer to this question, according to those authors, is just for France to respect the principle of compatibility and interoperability as stipulated at the fifth recital of the repealed. Indeed, 'Bearing in mind what has been said above, it would have been contradictory for the European legislation on electronic signatures if the same certificate of signature was considered differently in different proceedings. However, a more detailed analysis provides for a more sophisticated answer'<sup>80</sup>. The later required two considerations: the scope of application of the e-signature directive and the two categories of electronic signatures stipulated by the directive.

Before to go far in this analysis on the probable French barrier case to legal interoperability, let us mentioned that in response to the entering into force of the eIDAS regulation in 2016, the 'Décret no 2017-1416 du 28 septembre 2017 relatif à la signature électronique' was signed and directly become applicable. The aims of this 'decret' is to precise and to apply the conditions fixed by the article 1367 of the 'Code civil' fundamentally about the qualified signature and to repeal the 'Décret n°2001-272 du 30 mars 2001'. The 'Ordonnance n° 2016-131 du 10 février 2016 portant réforme du droit des contrats, du régime général et de la preuve des obligations' at his article 4 modifying the article 1366 of the code civil confirms the principle of functional equivalence of the 'écrit électronique' as stipulated at the article 3 of la loi 2000-230 and the same modifying the article 1367 of the 'code civile' on electronic signature. At the article 1 of the 'Décret no 2017-1416 du 28 septembre 2017 relatif à la signature électronique' clarifies the type of electronic signature which have a probative legal value<sup>81</sup>.

This provision clarifies the type of the electronic signature targeted by the ordonnance mentioned above (Article 4–1367 Code Civile) is the qualified electronic signature which have a substantial probative legal value according to the French 'Droit de la preuve'.

Back to the two dimensions to answer the paradoxical question of the French case. Firstly, it is now evident that by adapting its domestic law system to the eIDAS about qualified electronic signature and qualified electronic certificate, the principle of interoperability seems naturally, to be adopted. The ordonnance has also stipulated and recalled the principles of equivalence functional between the electronic document and paper-based document.

The Italian is quite different and advanced national system than the French case. Indeed, according to Merone, Italy was one of the first countries in the word in 1997<sup>82</sup> to introduce the fundamental principle of (Functional) equivalence between paper and electronic

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<sup>79</sup> Christiane Bierehoven, Philip Bazin and Tomasz Kozlowski, 'Electronic signatures in German, French and Polish law perspective' (2004) 7 Digital Evidence and Electronic Signature Law Review 10

<sup>80</sup> Christiane Bierehoven, Philip Bazin and Tomasz Kozlowski, *Idem*, 2004, 10

<sup>81</sup> Décret no 2017-1416 du 28 septembre 2017 retrieved from <https://www.legifrance.gouv.fr/eli/decret/2017/9/28/JUSC1716705D/jo/texte/fr> 15 Novembre 2018

<sup>82</sup> Legge 25 marzo 1997, n.59 Delega al Governo per il conferimento di funzioni e compiti alle regioni ed enti locali, per la riforma della Pubblica Amministrazione e per la semplificazione amministrativa Retrieved on 20 November 2018 from

<https://www.gazzettaufficiale.it/eli/id/1997/03/17/097G0099/sg>





documents<sup>83</sup>. In the same line, Finocchiaro, argued that the eIDAS would not have a significant impact on the CAD because the later is as far as possible well developed.

As the French tradition, the ‘Codice dell’amministrazione digitale’ (CAD) at his article 20 (1bis) insists on the probative efficiency of the electronic document<sup>84</sup>. Moreover, at paragraph 2 of article 21, it adopts the principles of functional equivalence, the probative value of qualified, advanced electronic signature or digital signature.

Unlike, the LOI 2000-230 which is not explicit about the privacy of personal data, the modified CAD at the same article paragraph 5 forcefully persuade and insists on the strict respect of provisions on personal data.

Article 21 paragraph 1 recognizes the probative value of a digital document signed electronically to be freely assessable in front of a tribunal based on objective quality, security, integrity and immutability. Paragraph 2 completes the precedent provision by reinforcing the accountability of the signatory in the case of an electronic document signed by a qualified electronic signature. The article 28 on the certificate of the qualified electronic signature recall the issues of using the pseudonym (Article 28 paragraph 1 and article 33) and the position of the Italian legislator shows its willingness to interpret and to respect the article 5 paragraph 2 of the eIDAS regulation<sup>85</sup>.

Since the French case doesn’t precise under which conditions pseudonym will be managed practically, this less legal interoperable can lead to two opposite interpretations from the appreciation of courts and tribunals.

Meanwhile, in general, the French and Italian legal system are interoperable. In fact, their respective systems give the importance on high level of objective quality of signatory (the persons involved in the contracts are objectively identifiable), the probative legal value of qualified electronic signature. It is also agreed on the fundamental principle of functional equivalence between handwritten, the principle of interoperability and the respect of personal data protection principle. Even if, the French legal system doesn’t explicitly

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<sup>83</sup> Aniello Merone, ‘Electronic signatures in Italian law’, (2014) 11 Digital Evidence and Electronic Signature Law Review 85

<sup>84</sup> See **DECRETO LEGISLATIVO 26 agosto 2016, n. 179 Modifiche ed integrazioni al Codice dell’amministrazione digitale, di cui al decreto legislativo 7 marzo 2005, n. 82, ai sensi dell’articolo 1 della legge 7 agosto 2015, n. 124, in materia di riorganizzazione delle amministrazioni pubbliche** Retrieved from <http://www.gazzettaufficiale.it/eli/id/2016/09/13/16G00192/sg> on 15 November 2018

<sup>85</sup> OJ L257, Idem, pp. 86

mention the privacy binding, the fact that both eIDAS and GDPR are self-executing on all pan-European cyberspace, oblige the French system directly to apply the principle.

Rooted in the tradition of Civil law System, the ‘Real Decreto 1553/2005, de 23 de diciembre, por el que se regula la expedición del documento nacional de identidad y sus certificados de firma electrónica’<sup>86</sup> lightly modified by the ‘Real Decreto 414/2015, de 29 de mayo’<sup>87</sup>, provided a legal basis on electronic signature, its legal effectiveness and provision of certification services. Since the eIDAS enters into force, the Kingdom of Spain didn’t yet update its regulation. The modification done in 2015 was just on certification. It is understandable why it does not allude explicitly to interoperability principle. Again, since the eIDAS regulation has entered in force the legal vacuum and uncertainty about this issue is fulfilled at the EU level. Only, the coherence of national jurisdiction to make more accessible a legal interoperability with the other Member States remains.

At its article 3 paragraph 4 and 9, the Spanish legislator recognized as in French and Italian case, respectively the fundamental principle of functional equivalence<sup>88</sup> and the principle of non-discrimination<sup>89</sup>.

About, the probative legal value of the electronic signature and more the qualified electronic signature, the legislator clarifies it at article 1 paragraph 7 and paragraph 8. The later paragraph specifies that in case of contestation of the qualified electronic signature, IT support in which personal data was used to create and store the signature, can be presented as proof elements. However, the contestation is acknowledged, a penalty between 120 and 360 euro is fixed.

## 5. Toward an economic analysis of digital ID interoperability

The main principle even implicit of European legal systems is economic efficiency<sup>90</sup>. The repealing of the Directive 1999/93/EC for its lack of incentives toward a less fragmented, interoperable and secured digital single market, evidenced the instrumentalist expectation by the EU through the prelude of the eIDAS regulation.

At the recital 17<sup>91</sup> of the regulation, the legislator strongly recommends Member States to encourage privates a voluntary use of electronic identification and at the article 12 a mandatory notification of their own electronic identification schemes. Nonetheless, to

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<sup>86</sup> Retrieved from <https://boe.es/buscar/act.php?id=BOE-A-2005-21163> on 15 November 2018

<sup>87</sup> See Reial decret 414/2015, de 29 de maig, pel qual es modifica el Reial decret 1553/2005, de 23 de desembre, pel qual es regula l’expedició del document nacional d’identitat i els seus certificats de signatura electrònica. [https://boe.es/boe\\_catalan/dias/2015/05/30/pdfs/BOE-A-2015-5953-C.pdf](https://boe.es/boe_catalan/dias/2015/05/30/pdfs/BOE-A-2015-5953-C.pdf) on 15 Novembre 2018

<sup>88</sup> Retrieved from <https://boe.es/buscar/act.php?id=BOE-A-2005-21163> on 15 November 2018

<sup>89</sup> Retrieved from <https://boe.es/buscar/act.php?id=BOE-A-2005-21163> on 15 November 2018

<sup>90</sup> Aurelien Portuese, Principe d’efficience économique dans la Jurisprudence Européenne, PhD’s Thesis, Unpublished, Université Pathéon Assas, Paris, 2012, 9

<sup>91</sup> OJ L257, Idem, 75



predict if the incentive structure framed by the interoperability provisions will impact behaviors of different stakeholders<sup>92</sup> in an economically efficient way, requires presenting some benefit (V.1) and cost (V.2) of a digital ID interoperable system. And beyond that, to put in perspective a plausible social welfare gained by the EU DSM through interoperability in respect of Digital right Management, Intellectual Property law and competition law (V.3).

### **5.1. Benefits of digital ID interoperability**

When an economy is networked, interoperability allows the firm to reduce the transaction or production cost of the internet services (trusted services, e-commerce transaction, digital contents, etc.) owing to the network effect, to make it more competitive, to provide it with an economy of scale.

For the consumer, interoperability in general and more digital ID interoperability provides advantages such as: ease-of-use, privacy, anonymity and low price<sup>93</sup>. It enables also a choice between different digital service with a less switch cost and a non-lock-in system to only one provider.

At the level of the industry and the society, it lowers price of digital services and contents by enhancing competition, promote a more innovative and creative society<sup>94</sup> and increase a privacy control end reduces social and financial risks faced by users online<sup>95</sup>.

### **5.2. Cost and drawbacks of digital ID interoperability**

All of these are not without cost and disadvantages. In fact, for the consumer, digital ID interoperability increases the risk of misusing of personal information, data breaching, identity theft, of losing anonymous communication on the web and the risk of more sophisticated phishing<sup>96</sup>.

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<sup>92</sup> Citizens, businesses, providers of digital services, trust services providers, public administration

<sup>93</sup> John Palvrey and Urs Grasser, *Idem*, p. 35

<sup>94</sup> Niva Elkin-Koren and Eli Salzberger, *The Law and Economics of Intellectual Property in the Digital Age*, (Routledge 2011) 205.

<sup>95</sup> John Palvrey and Urs Grasser (a), *Idem*, p. 36

<sup>96</sup> John Palvrey and Urs Grasser (a), *Idem*, p. 36-37

In the case of single sign system under digital ID interoperability, firms which depend on consumer lock-in to develop their business can lose their market share due to lower barrier at entries of the industry and the easier poaching of their customer by competitor. Besides, that in a jurisdiction or national legal system where reverse engineering is licit and legal, incentives to develop some platforms can be lower enough to benefit the value added of innovation<sup>97</sup> and break down any effort of fair trade in the competition law.

### 5.3. Social Welfare Effects of interoperability

The potential benefit, costs and drawback of digital ID interoperability combined to its mandatory nature to deal with both protected digital content (personal information), software (electronic identity system) and mutual liability of European cyberspace security, render its evaluation of social welfare more complicated. The regime of privacy of person data and digital right management over systems developed by trusted service providers have to not be neglected when the pan-European digital identity system goes interoperable. As a consequence, it could result in a development of a non-competitive market structure with some failures related to less incentives to interop to secure trade secret (source code), to avoid the raising of identity theft and other security risk.

Unlike other digital services or contents, electronic identity services are private and protected *sui generis*. The base under which the interoperability has to rely are protected by copyright law as creative things according to the Directive 2009/24/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 April 2009 on the legal protection of computer programs. This make the choice between protecting or freeing interface of electronic identity systems more delicate. The potential legal impediments of interoperability caused by the Intellectual property regime could result in dominant market structure with monopolistic competitive firm or at least public monopoly which are not in compliance with the principle of internal market and European antitrust and competition law and therefore harmful for the social welfare.

The economic and legal puzzles of digital ID interoperability contrary to other information-based good, lies in the fact that, issue of privacy and intellectual property right really matter. The dilemma of the EU will be to choose between diverse standards<sup>98</sup>: isolated or silo model, centralized model, federated model and user-centric model under the constrain of personal data protection and ownership compliance, and intellectual property (copyright and trade secret) rights. This turn to a traditional problem within Chicago law and economics paradigm of maximization of social welfare resulting from

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<sup>97</sup> Pamela Samuelson and Suzanne Scotchmer, 'The Law and Economics of Reverse Engineering' (2002) 3 Yale law Journal 1621-1622, and Niva Elkin-Koren and Eli Salzberger, *Idem*, 207-208

<sup>98</sup> John Palvrey and Uts Grasser, *Idem*, p. 12-22 for digital ID interoperability and Patrick Waelbroeck, Julie Denouël and Maryline Laurent, *Idem*, 33-37 for digital identity management in general



interoperability of one of standards under the risk of privacy and infringement of copyright and poaching of trade secret of trusted service providers.

## 6. Conclusions

The cross-border interoperability for an effective and reliable pan-European electronic identification remains a big legal, technical and operational obstacle between Member States. Since the enforcement of the eIDAS Regulation and the obligation of all public services to be interoperable in European Union, only 13 countries on 27, comply and had fulfilled with the requirement of cross-board interoperability.

Motivated by those facts and some unclear dispositions of eIDAS regarding interoperability, this paper investigated the impact of provisions at article 12 (Cooperation and interoperability) on articles 7 to 9 (Notification and security level of electronic identification schemes) of the eIDAS and economic efficiency of the overall digital identity ecosystem. The objective was to understand if conditions for cross-border interoperability as settled by the legislator comply with principles of functional equivalence, net neutral technology, protection of personal data and mutual recognition to provide secure, reliable, and efficient electronic identification schemes within the EU DSM.

Following the doctrinal view, finding from the textual analysis of article 12, raised the fact that cross-border interoperability will restrain the cyberspace sovereignty of Member States by transferring a share of it at the European Commission. This trade-off between Cyberspace sovereignty and pan-European electronic identification can be functional if the assurance level and mutual liability between the Member States are enhanced. The guarantees of assurance and liability are crucial for cross-border interoperability provisions to impact positively on both security and reliability within electronic identification schemes and protection of personal data flowing the nodes.

The analysis also led to understand that the obligation of interoperable pan-European electronic identification complies with the net neutral technologic principle. It was evidenced that the legislator intends to promote technical solutions to faster interoperability regardless the technology. Nonetheless, they should be conformed to assurance levels, common operational security standards, and arrangements for dispute resolution. Beyond, it seems that the legislator would like to promote innovation and

diversity of solutions to technical interoperability instead of single one. The later could harm the law of free competition.

The comparative analysis between Italy, France and Spain as cases for legal interoperability issues, showed that regarding the similarities between their domestic legislation and the self-executing power of eIDAS, it could not be any barriers. Nevertheless, for some legal vacuum about the probatory issues, the Spanish domestic legislation could result in some barriers with the Italian and French ones.

Regarding the economic efficiency, the puzzle to evaluate if the eIDAS will lead to more positive incentives and therefore adoption and emulated behaviors of stakeholder toward interoperability, if and even if the provision find in his effectiveness, an optimal trade-off between the digital identity standards and the binding of both personal data protection obligations and intellectual property right.

For the novelties of the eIDAS about interoperability, it remain a lot to clarify about which court will be in charge to solve a tort, a dispute, or other legal issues between two or more Member states regarding case of data or electronic documents, since there is an incidence on both European and domestic procedure and laws.

The leave of competence to the Member States about how to promote incentives schemes for interoperability in the private sector is in the straight-line with the willingness of the legislator to keep the share of Cyberspace Sovereignty devoted to the Member States. However, the public-private partnership to give to private business successful access to electronic identification schemes and nodes, have to be carefully thought to avoid a new barrier for cross-border interoperability and de facto for the achievement of the Digital Agenda.

Meanwhile, this work did not cover jurisprudential aspects borrowing by the issues for European case. It could be explained both by the novelties of the Regulation and the compulsory nature of e-public service interoperability which intervened just at the end of September 2018. Besides that, only two countries have completed their notification schemes: Italy and Germany. Nonetheless, an in-depth analysis of case law remains necessary for the understanding of the scope and the effectiveness of eIDAS to solve some practical issues and facts within the EU DSM.

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