# “I ate one of their famous secret agents for breakfast”

## Psychopathy in Ian Fleming’s James Bond Villains

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The psychological construct of “psychopathy” describes individuals without a conscience who, like Bond villains, knowingly harm others via manipulation, intimidation, and violence, but feel no remorse. Psychopathic traits potentially have serious forensic consequences (Walters 2003) to the point that psychopathy as a diagnostic entity or construct has traditionally been applied mostly to perpetrators of crimes, for whom no therapeutic options could be considered. Overall, the social and behavioural problems displayed by individuals with psychopathic traits are known to have an extremely poor prognosis (Hare 2003). Within the psychiatric nosology, elements of psychopathy have been included in the diagnostic criteria for antisocial personality disorder, which is defined by a pervasive and persistent disregard for morals, social norms, and the rights and feelings of others (American Psychiatric Association 2022).

Specifically, antisocial personality disorder is currently defined as a pervasive pattern of disregard for and violation of the rights of others, as indicated by the presence of at least three of the following features: failure to conform to social norms with respect to lawful behaviours, as indicated by repeatedly performing acts that are grounds for arrest; deceitfulness, as indicated by repeated lying, use of aliases, or conning others for personal profit or pleasure; impulsivity or failure to plan ahead; irritability and aggressiveness, as indicated by re-

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peated physical fights or assaults; reckless disregard for safety of self or others; consistent irresponsibility, as indicated by repeated failure to sustain consistent work behaviour or honour financial obligations; and lack of remorse, as indicated by being indifferent to or rationalising having hurt, mistreated, or stolen from another (ibid.). The shared features between psychopathy and antisocial personality disorder result in a clinically significant overlap between the two constructs (Ogloff 2006).

The assessment of psychopathic traits is assisted by psychometric tools, the most widely used being the Psychopathy Checklist-Revised (PCL-R). This instrument was originally developed in the 1970s by Canadian researcher Robert Hare and published in its most recent version in 2003. The PCL-R consists of twenty items that are rated on a three-point scale (from 0 to 2) based on the degree to which the subject's personality/behaviour matches the description of the item. The items of the PCL-R assess the clinical picture of psychopathy along two factors: Factor 1 or Emotional Detachment (e.g., superficial charm, manipulativeness, shallow affectivity, absence of guilt or empathy); and Factor 2 or Antisocial Behaviour (e.g., deviance from an early age, aggression, impulsivity, irresponsibility, proneness to boredom).

Factor 1 mainly overlaps with narcissistic personality disorder and encompasses interpersonal and affective traits. Narcissistic personality disorder is currently defined as a pervasive pattern of grandiosity (in fantasy or behaviour), need for admiration, and lack of empathy, as indicated by the presence of at least five of the following features: grandiose sense of self-importance (e.g., exaggeration of achievements and talents, expectation to be recognised as superior without commensurate achievements); preoccupation with fantasies of unlimited success, power, brilliance, beauty, or ideal love; beliefs about being "special" and unique and being understood only by other special or high-status people (or institutions); requirements of excessive admiration; sense of entitlement (i.e., unreasonable expectations of especially favourable treatment or automatic compliance with own expectations); interpersonal exploitation (i.e., taking advantage of others to achieve own ends); lack of empathy (unwillingness to recognise or identify with the feelings and needs of others); envy of others or belief that others are envious; and a display of arrogance and haughty behaviours or attitudes (American Psychiatric Association). Factor 2 of the PCL-R mainly overlaps with antisocial personality disorder and captures behaviours that are antisocial, impulsive, and related to an unstable lifestyle. Items such as having many short-term marital relationships and displaying promiscuous sexual behaviour do not seem to fall into either Factor 1 or Factor 2 of the PCL-R and are usually kept outside of these categories as independent items.

Psychodiagnostic assessments have been conducted on fictional characters (Haycock 2016). Literary portrayals such as Ian Fleming's vivid depictions of Bond villains could complement clinical evaluations of psychopathy. Evidence for their psychopathic features has been collected from Fleming's novels (Kavanagh and Cavanna 2020), as well as from their cinematic adaptations (Leistedt and Linkowski 2014). These studies show that neuroscientific literature on Bond villains expands beyond the report of neuroanatomical blunders in the blockbuster Bond saga (Cusimano 2015; Currie 2018). The aim of the present paper is twofold. The first section provides evidence of specific psychopathic traits (according to the factors identified by the PCL-R) in the characters of the villains, as portrayed in a representative sample of Fleming's Bond novels. The second section suggests that the Bond-villain (Good-Evil) dichotomy could be functional to Fleming's narrative scheme, as the oppositional relationship between Bond and the villain in all its declinations is one of the key dimensions that shape the narrative plot.

## PSYCHOPATHIC TRAITS IN BOND VILLAINS

Psychopathic traits are pervasive in the literary portrayals of Bond villains (Kavanagh and Cavanna). In what sounds like a confession, Dr. No admits "[y]ou are right, Mr. Bond. That is just what I am, a maniac. All the greatest men are maniacs. They are possessed by a mania that drives them towards their goal. The great scientists, the philosophers, the religious leaders – all maniacs" (Fleming 1958, 227). The roots of the terms "mania"/"maniac" applied to psychopathic personalities can be traced back to the first modern medical description of what we recognise today as "psychopathy", by French psychiatrist Philippe Pinel (1745-1826). Interestingly, Pinel used the term "*manie sans délire*" ("mania without delirium") to refer to psychopathy as the capacity for rational thought while acting "under the dominion of instinctive and abstract fury, as if the active faculties alone sustained the injury" (qtd. in Kavka 1949, 462). In Fleming's novels, psychopathological traits frequently emerge in villains' monologues, as well as in their dialogue with Bond. The novels provide numerous examples of this phenomenon or veritable convention. Interestingly, such examples can be mapped onto PCL-R Factor 1 (Emotional Detachment, with both its interpersonal and affective facets) and PCL-R Factor 2 (Antisocial Behaviour, with both its lifestyle and antisocial facets). For the purposes of this study, the reviewed novels are as follows: *Live and Let Die* (1954), *Dr. No* (1958), *Goldfinger* (1959), *Thunderball* (1961), *On Her Majesty's Secret Service* (1963), *You Only Live Twice* (1964), and *The Man with the Golden Gun* (1965).

The interpersonal facet of PCL-R Factor 1 (Emotional Detachment) is widely represented across the villains of Fleming's novels. For example, both Goldfinger and Emilio Largo are characterised as possessing a fair amount of glibness or superficial charm: "Goldfinger had, in three minutes flat, got the meeting on his side. Now everyone was looking towards Goldfinger with profound attention [...] Now everyone was hanging on Goldfinger's words as if he was Einstein" (Fleming 1959, 280-281); and "Largo was very popular with everyone" (Fleming 1961, 138). A grandiose sense of self-worth is epitomised in Mr. Big's name as well as in his self-praising words directed to Bond: "I am content, for the time being, to be my only judge, but I sincerely believe, Mister Bond, that the approach to perfection which I am steadily achieving in my operations will ultimately win recognition in the history of our times" (Fleming 1954, 94). Likewise, Dr. No refers to himself when he addresses Bond: "[i]t is a rare pleasure to have an intelligent listener and I shall enjoy telling you the story of one of the most remarkable men in the world" (Fleming 1958, 225). To Bond's matter-of-fact remark about Ernst Stavro Blofeld and fellow villain Irma Blunt ("I suppose you know you're both mad as hatters"), the villain replies "[s]o was Frederick the Great, so was Nietzsche, so was Van Gogh. We are in good, in illustrious company, Mister Bond" (Fleming 1964, 259). Bond cannot help but commenting on Francisco Scaramanga's inflated ego: "[n]ow look here, Mr. Scaramanga. I've had just about enough of this. Just stop leaning on me. You go around waving that damned gun of yours and acting like God Almighty" (Fleming 1965, 139).

The affective facet of PCL-R Factor 1 is equally well represented. Callousness and lack of empathy are thoroughly exemplified by Dr. No's threats to Honey Rider: "[t]he German experiments on live humans during the war were of great benefit to science. It is a year since I put a girl to death in the fashion I have chosen for you, woman. She was a Negress. She lasted three hours. She died of terror. I have wanted a white girl for comparison" (Fleming 1958, 254). To Bond's reasonable protest ("You're mad! You don't really mean you're going to kill sixty thousand people!") Goldfinger replies "[w]hy not? American motorists do it every two years" (Fleming 1959, 309). The words accompanying Mr. Big's gesture towards the gun trained on Bond through the desk drawer betray a complete lack of remorse or guilt: "[w]ith this engine I have already blown many holes in many stomachs, so I am quite satisfied that my little mechanical toy is a sound technical achievement" (Fleming 1954, 95). Dr. No's memories of his "good old days" have the same effect: “[i]t was a time of torture and murder and arson in which I joined with delight” (Fleming 1958, 231). Scaramanga is equally proud and explicit about his lack of remorse or guilt: “I eat one of their famous secret agents for breakfast from time to time. Only ten days ago, I disposed of one of them who came nosing after me” (Fleming 1965, 111).

In order to illustrate the lifestyle facet of PCL-R Factor 2 (Antisocial Behaviour), it might be worth quoting the self-confessed need for stimulation and proneness to boredom shared by Mr. Big and Blofeld. As Mr. Big notes: “I suffer from boredom. I am a prey to what the early Christians called ‘accidie’, the deadly lethargy that envelops those who are sated, those who have no more desires” (Fleming 1954, 93); and as Blofeld echoes: “there has developed in me a certain mental lameness, a disinterest in humanity and its future, an utter boredom with the affairs of mankind. So, not unlike the gourmet, with his jaded palate, I now seek only the highly spiced, the sharp impact on the taste buds, mental as well as physical, the tickle that is truly exquisite” (Fleming 1963, 262). It could be argued that the lack of realistic long-term goals is a villain trait that shapes the plot of virtually all Bond novels.

Behavioural evidence of the antisocial facet of Factor 2 can be easily extracted from the villains’ biographies, too. For example, criminal versatility is apparent from both Dr. No’s memories (“I enjoyed the conspiracies, the burglaries, the murders, the arson of insured properties” (Fleming 1958, 230)) and Largo’s biography (“There was a cool brain and an exquisite finesse behind his actions that had always saved him from the herd’s revenge - from his postwar debut as head of the black market in Naples, through five lucrative years smuggling from Tangier, five more master-minding the wave of big jewel robberies on the French Riviera” (Fleming 1961, 95)). Moreover, the juvenile delinquency of Scaramanga seems to be beyond question: “[a]t the age of 16 [he] emigrated illegally to the United States where he lived a life of petty crime on the fringes of the gangs until he graduated as a full-time gunman for The Spangled Mob in Nevada” (Fleming 1965, 32).

Finally, promiscuous sexual behaviour is unsurprisingly widespread. Three examples will suffice: Mr. Big “had no known vices except women, whom he consumed in quantities” (Fleming 1954, 24); “Largo cannot live without a woman within reach” (Fleming 1961, 188); and Scaramanga “is an insatiable but indiscriminate womanizer who invariably has sexual intercourse shortly before a killing in the belief that it improves his ‘eye’” (Fleming 1965, 32). Like other psychopathic features, this behavioural trait is unquestionably common, but by no means ubiquitous. Goldfinger fetishises gold and the novel says little about his sexuality; while Dr. No talks about torturing and murdering a girl, but little about sexual intimacy.

## PSYCHOPATHIC TRAITS AND THE NARRATIVE STRUCTURE OF THE BOND NOVELS

The narrative scheme of the James Bond novels was admirably outlined by Umberto Eco, who was the first scholar to identify a basic structure, consistently replicated with few variants (Eco 1966). According to Eco's classical structuralist approach to Fleming's novels, the oppositional relationship between Bond and the villain is one of the key dimensions that shape the narrative plot. It could be argued that the *primum movens* of the plot is the villain. It is to react to a villain's world domination plan that M, the head of the British Secret Service, summons Bond and assigns him the task of defeating the villain's menace. What follows is a set of hardly amicable interactions between Bond and the villain – usually involving sadistic tortures. Even the presence of the Bond girl(s) is somewhat instrumental to Bond's ultimate achievement (i.e., killing the villain and/or his representative).

This is evident from a quantitative analysis of Eco's nine-stage structural approach to Fleming's novels, featuring the three main characters: B=Bond, V=Villain, W=Woman (M features only in stage 1, as the character who sets the scene for the following eight stages of the unfolding plot). In stage 1, M moves and gives a task to B. In stage 2, V moves and appears to B (perhaps in vicarious forms). In stage 3, B moves and gives a first check to V (or vice versa). In stage 4, W moves and shows herself to B. In stage 5, B takes W (possesses her or begins her seduction). In stage 6, V captures B (with or without W, or at different moments). In stage 7, V tortures B (with or without W). In stage 8, B beats V (kills him or kills his representative or helps at their killing). In stage 9, B, convalescing, enjoys W, whom he then loses. The villain features as a key element in 5/9 stages of the narrative structure, and as early as in stage 2. By contrast, the Bond girl features as a key element in 3/9 stages of the narrative structure, and only from stage 4 (cf. Eco).

The basic linear scheme of Fleming's narrative, as outlined by Eco, imposes clear constraints to the plot (cf. Sternberg 1983). Rules must be obeyed, and narrative structures are no exception. In *The Man with the Golden Gun*, Bond receives clear orders: Scaramanga, the most dangerous gunman alive and ruthless killer of British agents, must be got rid of at the first opportunity. It turns out that Bond has a chance of killing the villain at an early stage, however Fleming cannot allow him to do so, since this event has to be located towards the end of the narrative structure (stage 8). The efforts made by Fleming in order to save the sequence of the plot are made apparent by the convoluted justifications that save Scaramanga from certain death:

> James Bond got into the car behind Scaramanga and wondered whether to shoot the man now, in the back of the head – the old Gestapo-K.G.B. point of puncture. A mixture of reasons prevented him – the itch of curiosity, an inbuilt dislike of cold murder, the feeling that this was not the predestined moment, the likelihood that he would have to murder the chauffeur also – these, combined with the softness of the night and the fact that the sound system was now playing a good recording of one of his favourites, 'After You've Gone', and that cicadas were singing from the lignum vitae tree, said no. But at that moment, as the car coasted down Love Lane towards the bright mercury of the sea, James Bond knew that he was not only disobeying orders, or at best dodging them, but also being a bloody fool. (Fleming 1965, 82-83)

The behaviour displayed by the villains when it is their turn to finish Bond off provides further evidence for the demanding requirements of such a rigid narrative structure (cf. Sternberg). They seem to indulge in a folly of their own, that Fleming attempts to justify in dramatic terms, but that seems to be hardly compatible with the deadly skills that made them what they are. Instead of straightforwardly killing Bond on the spot, the villains devise spectacular modes of execution, whose lack of immediacy provides the indispensable loophole: for example, Mr. Big resorts to his sharks, whereas Scaramanga chooses to stage a hunting accident.

There are other lines of argument indicating that the villains play a key role that is functional to Fleming's narrative structure. Eco argued that the James Bond novels are populated by archetypal figures that have long proved successful in fairy tales. According to this model, M is the King, Bond is the Knight/Prince, the villain is the Dragon, and the Bond girl is the Lady. Fleming depicts a simplistic, Manichean worldview, characterised by a dualistic contrast between Good (Bond) and Evil (villain) (cf. Eco). For example, the showdown between Bond and Blofeld, his greatest adversary, has been referred to as "the most symptomatic case of the split between good and evil Nietzscheanism" (Landa 2006, 90). The villains' widespread psychopathic traits crystallise the Bond-villain dichotomy, which in turn seems to be functional to Fleming's narrative scheme. In other words, psychopathy could be seen as the most striking differentiating feature between Bond and the villain, or between Good and Evil. Such a binary structure naturally appeals to a mass audience, since readers can quickly understand the characters and follow the plot alongside a known path, already anticipating the outcome from the beginning and taking pleasure from the comfort provided by the familiar.

The medical literature on the character of Bond has so far mainly focused on his drinking behaviour (Johnson et al. 2013) and promiscuous sex life (Zegers and Zegers 2018). However, there have been suggestions that Bond can also display features of psychopathy himself. Specifically, the "Dark Triad" of Machiavellianism, narcissism, and psychopathy has been referred to as "James Bond psychology" (Jonason et al. 2010). The Dark Triad is a psychological theory of personality developed in 2002 that describes three notably offensive (but non-pathological) personality types which are conceptually distinct despite sharing a callous-manipulative interpersonal style (Paulhus and Williams 2002). Each of these personality types is referred to as "dark" because each is considered to entail malevolent qualities. Machiavellianism, named after the political philosophy of Niccolò Machiavelli (1469-1527), is characterised by lack of morality, callousness, manipulation, and exploitation of others, as well as an excessive level of self-interest. Narcissism is characterised by a mix of grandiosity, entitlement, pride, dominance, egotism, and superiority, as well as a lack of empathy. Finally, psychopathy is defined according to the features listed in the PCL-R and is considered the most malevolent of the Dark Triad. The dark core of personality or D-factor is the personality trait proposed to underlie all other traits of the Dark Triad. The D-factor has been defined as "the general tendency to maximize one's individual utility disregarding, accepting, or malevolently provoking disutility for others, accompanied by beliefs that serve as justifications" (Moshagen et al. 2018, 656). Individuals who present with pronounced features of the Dark Triad have been found to have a statistically increased likelihood to commit crimes, cause social distress, and create severe problems for organisations, especially if they are in leadership positions. It could be argued that these features do not completely overlap with Bond's biography and attitude.

There are key differences between Bond's personality and the villains' psychopathic traits, upon which Fleming builds his dichotomous narrative. The way Fleming depicts his characters could be traced back to the first masterpieces of the Western canon, the Homeric poems. It has been argued that Bond villains – like the gigantic heroes of the *Iliad* – are invested with unique psychopathic and physical traits that are stretched to monumental proportions. On the contrary, Bond – like Odysseus of the *Odyssey* – is invested with a multifarious complex of human traits that make him both prone to identification and worthy of admiration (cf. Sternberg). The mono-maniacal ambitions of the villain would not be exceedingly out of place in the Iliadic poem, where the characters' unidimensional skills are stretched to the extreme (e.g., Achilles is supreme in fighting, Ajax in determination, Nestor in strategy, and so on). The psychological characterisation of Odysseus is quite different. In the very first verse of the *Odyssey*, Homer describes him as "polytropon", which literally means "many way-ed" or "much turning". This epithet – whose translation as "versatile" does not fully capture the ramifications of its semantic domains – conveys the character's deep complexity. Odysseus, like Bond, has many ways of getting things done and many cunning turns of mind, in addition to being a man who must actually travel upon many turning paths during his attempts to accomplish his mission: return to Ithaca or fulfil M's assignment. Contrary to the villains, Bond rarely kills in cold blood, and never for pleasure (as shown by Fleming's novels far more convincingly than their cinematic transpositions). In the *Odyssey*, Odysseus is portrayed as momentarily losing his heart on multiple instances, such as after the shipwreck that leads him to Phaeacia. Likewise, in Fleming's novels it is possible to see Bond as a far less fantastic and more human character than a preposterous superman. Fleming's description of Bond's human traits reinforces the dichotomy between the secret agent and the villains – or even their sidekicks.

As a paradigmatic example, in *Goldfinger*, Fleming observes that Bond's confrontation with Goldfinger's Korean bodyguard "would have been a man fighting a tank" (Fleming 1959, 234). It would be hard to deny that Bond inherited a few of Fleming's questionable habits, such as smoking, drinking, and an appreciation for beautiful women and fine automobiles. However, his violence is measured, his bravery is unfaltering, and his loyalty and honour as an agent and subject of Her Majesty's Secret Service are unquestionable. Bond has quite a few love affairs, but only with one or at most two girls per novel; and he too is sometimes rebuffed. Furthermore, Bond comes across as a gentleman with genuine style. Bond's style was given a historical Italian name by Pulitzer Prize-winning writer Michael Dirda, according to whom Bond has "what Renaissance courtiers always aspired to exemplify: *sprezzatura*. That is the ability to perform even the most difficult task with flair, grace, and nonchalance, without getting a wrinkle in your clothes or working up a sweat" (Dirda 2008, B20).

It is undeniable that Bond can chase dangerous killers, face armoured war machines, and make love to countless dangerous women, all without missing a beat. At the same time, Fleming's readers are offered revealing glimpses into Bond's inner world – and get the distinctive feeling that his anxieties and self-doubts set him apart from the intrinsically psychopathic dimension of the villains. According to Eco's structuralist account, Bond is credible in the role of the Knight/Prince as he is endowed with feelings of pity, generosity, weakness, and even fear. Eco's observation that "Fleming excludes neurosis from the narrative possibilities" (36) is in line with the absence of neurotic symptoms (anxiety and affective symptoms) from the clinical descriptions of psychopathy. In *The Mask of Sanity*, Hervey Cleckley collected his observations of institutionalised psychopaths, upon which most modern conceptualisations of psychopathy are based (Cleckley 1988; cf. Marsh 2013). Importantly, Cleckley distinguished psychopaths from other psychiatric patients as typically free from anxiety. Specifically, he qualified psychopathy as an "absence of nervousness or psychoneurotic manifestations" and described the prototypical psychopath as "incapable of anxiety", showing "immunity from [...] anxiety or worry", and being "free from [...] nervousness" (384). Thus, Eco's remark on Fleming's narrative technique seems to capture the essence of the villain. Eco's analysis of the first James Bond novel, *Casino Royale*, hints at a generalisation of this narrative strategy: "in the last pages of *Casino Royale* Fleming, in fact, renounces all psychology as a motive of narrative and decides to transfer characters and situations to the level of an objective structural strategy" (37). However, the claim that "Bond ceases to be a subject for psychiatry and remains at most a physiological object" (ibid.) seems to be more of an aspiration than a defining feature of an all too human Bond. In *Casino Royale*, Bond confides a chilling doubt to his French colleague, Mathis: have they been fighting for a just cause? This is enough to prompt Mathis' concerned reaction: "Don't let me down and become human yourself. We would lose such a wonderful machine" (Fleming 1953, 176). Mathis's concerns are justified by Bond's feelings and psychological depth, whereas they could never apply to the villains: the juxtaposition of psychological and psychopathic traits helps explain Bond's character more fully, as well as providing the backbone for the dichotomous structure of the narrative plot.

It would be difficult for even the shallowest readers of Fleming's novels to ignore the stark contrast between the physical appearance of the villains and Bond's presence. Intriguingly, it looks like the moral perversion of the villains is matched by their physical monstrosity. This is often insinuated by their disproportionate physicality or by a deformity of a body part, much like the Homeric cyclops. For example, Mr. Big is endowed with "a great football of a head, twice the normal size [...] supported by the shoulders of a giant": Bond appropriately thinks of their impending struggle as “a homeric slaying” (Fleming 1954, 78). Largo’s hands are “almost twice the normal size, even for a man of his stature [...]. They looked [...] almost like large brown furry animals quite separate from their owner” (Fleming 1961, 94). In a similar vein, it is not unusual for Fleming to use animal metaphors to further de-humanise his villains and to complement their psychopathic core. For example, Largo first appears dressed in a “white shark-skin jacket” (ibid., 92) and Bond dreams “of Domino being pursued by a shark with dazzling white teeth who suddenly became Largo” (ibid., 139).

In this context, it is the recurrent metaphor of the dragon that encapsulates the psychopathic nature of the villain and its key role in the dichotomous narrative structure of Good-Evil duality. The realisation that Bond alone can save the world from Goldfinger’s devilish plot triggers Bond’s comments: “[t]his time it really was St. George and the dragon! And St. George had better get a move on and do something before the dragon hatched the little dragon’s egg” (Fleming 1959, 298). This powerful image is highly functional to the polarisation between Bond as the Knight/Prince and the villain as the Dragon. Just like the mythological hero of later romance, Bond comes to the rescue of the Bond girl (the Lady, i.e., the archetypal “damsel-in-distress”, as she is rather explicitly referred to in *Goldfinger* (ibid., 210)). In *On Her Majesty’s Secret Service*, Bond is described as playing with the idea “to reverse the old fable – first to rescue the girl, then to slay the monster” (Fleming 1963, 35-36) showing signs of awareness of his own role within a medieval epic framework.

In the opening lines of *You Only Live Twice*, Fleming reminds his readers that the English are brought up on legends of King Arthur’s Court, just like the Americans dwell on their Wild West myth. Once the scene has been set in terms of knight errantry and St. George’s ordeal, the dragon can make its appearance. It soon emerges that the owner of the obnoxious suicide garden is associated with a Japanese criminal organisation called “the Black Dragon Society” in observance to the legend of the dragon (i.e., as the classical keeper of the garden). In order to accomplish his mission, Bond is subsequently asked to pass a severe test: “[y]ou are to enter this Castle of Death and slay the dragon within” (Fleming 1964, 110). The structural dichotomy of St. George and the Dragon shapes a mythic or figurative plot that ends up being superimposed on the actual sequence of the events narrated in the novel. The villain (Blofeld) is even adorned with a black kimono across which there sprawls a golden dragon spitting fire.

In *Dr. No*, Bond hears “some crazy story” about “a dragon with flames coming out of his mouth” (Fleming 1958, 39) having attacked a bird sanctuary in

Jamaica and burnt the wardens. On reaching Jamaica, Bond finds out that the Bond girl (Honey Rider) is a Lady who believes in the story of the Dragon: she even claims to have seen the dragon with its big glaring eyes, short wings, pointed tail, and long fire-spitting snout. In the novel, the fantastic possibility remains open until Bond actually comes face to face with the Jamaican dragon, only to discover that the fearful monster turns out to be a huge tank competently dressed up to convincingly simulate the appearance of the mythological creature. Finally, it might be worth remembering that in Fleming's novels Bond politely declines all decorations, with only one exception. In *On Her Majesty's Secret Service*, it is mentioned that in 1953 he was fictionally decorated with the C.M.G. - that is, the title "Companion of the Order of Saint Michael and Saint George" (Fleming 1963, 50).

Interestingly, the image of the dragon reverberates in the neuroscientific literature, as the "reptilian brain" plays a key role in the triune brain theory developed by American neuroscientist Paul MacLean since the 1960s and published in its final version in 1990. Specifically, MacLean proposed that the "reptilian brain" (deep brain structures such as the basal ganglia, which *Homo sapiens* shares with lower species including cold-blooded reptiles) might be responsible for species-typical instinctual behaviours involved in aggression, dominance, territoriality, and ritual displays (cf. Cavanna 2018). According to MacLean's evolutionary perspective, the capacity for emotions, care, and empathy developed at a later stage, when the "paleomammalian brain" evolved with a network of (mostly) subcortical structures, collectively called the limbic system. The ability of processing emotions allowed by the development of the limbic system plays a central role in empathy and interpersonal bonding skills, which in turn are the main components of maternal care, communication, and play – key aspects of mammalian behaviour, including in *homo sapiens*. In MacLean's own words, "the history of the evolution of the limbic system is the history of the evolution of the mammals, and the history of the evolution of the mammals is the history of the evolution of the family" (247).

Finally, the "neomammalian brain" of *homo sapiens* is considered to be unique in many respects because of the unprecedented expansion of the cortical areas (neocortex, especially within the frontal lobes). The neocortex is the third and most recent component of the triune brain, and is responsible for the development of language, abstract thinking, insight, and behavioural regulation, among its many functions. Most of the higher skills that characterise *homo sapiens* depend on a fully developed and functioning prefrontal cortex and are absent in the other species. Moreover, certain aspects of these complex functions might be dysfunctional in individuals who display psychopathic tendencies. The concept of "Syndrome E" (where "E" stands for "Evil") was developed and popularised by American neurosurgeon Itzhak Fried in 1997 in response to an editorial published a year before in the influential medical journal *The Lancet* championing the hope that, one day, an inquisitive scientist "will come across evil [...] and recognise it for what it is" (Anonymous 1996, 1). Fried suggested a possible pathophysiological model to explain mass murders committed by ideologically motivated groups with impaired empathy (the affective facet of PCL-R Factor 1, Emotional Detachment): developmental abnormalities in brain circuitries involving cortical and subcortical connections could lead to a distorted interaction between the prefrontal cortex and the limbic system, and ultimately result in the amygdala being tonically inhibited by prefrontal activation. According to this neurobiological model, the tonic inhibition of the "paleomammalian brain" (in MacLean's terms) would be responsible for the psychopathic traits that characterize "Syndrome E". Key aspects of both MacLean's and Fried's theory have received support from current neuroscientific advances. For example, according to the results of brain imaging studies, psychopathy is characterised by structural and functional abnormalities at the level of both cortical areas (including the prefrontal cortex) and subcortical structures (including the amygdala), which result in "neurocognitive disruption in emotional responsiveness", among other behavioural consequences (De Brito 2021, 49).

Based on MacLean's model of the triune brain, it could be argued that Bond's own inner psychopath (his "reptilian brain") is tamed by his dutiful "neomammalian brain" (neocortex), if not moderated by his caring "paleomammalian brain" (limbic system) (Valzelli 1987; MacLean 1990). In *Goldfinger*, Bond's inner reptile appears to be evoked by Fleming through the image of the primeval dinosaur:

> The great iron puffs were on top of him, inside his brain. Bond felt the skin crawling tickle at the groin that dates from one's first game of hide and seek in the dark. He smiled to himself at the animal danger signal. What primeval chord had been struck by this innocent engine noise coming out of the tall zinc chimney? The breath of a dinosaur in its cave? (Fleming 1959, 227)

There is ample textual evidence suggesting that this process might be faulty in the brain of the Bond villains: these observations about the differences between

Bond and the villains could provide a neurobiological model underlying the fundamental dichotomy that shapes the narrative structure of Fleming's novels. The literary appeal of the consolidated narrative scheme adopted by Fleming might have a neurobiological explanation, and his vivid depictions of Bond villains could ultimately be helpful in shaping paradigms for the clinical evaluations of psychopathy.

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