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Original article

The West: An autoimmune disease?

L'occident : une maladie autoimmune ?

Livi Poenaru

Psychopathology and Clinical Psychology, Federal Psychotherapist ASP, MedinVita CLINIC, Geneva, Switzerland



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ABSTRACT

Context. – This work explores the paradoxical stress mechanisms in Western societies, marked by consumption and comfort. Despite the perceived well-being of modern capitalist societies, a profound psychosomatic discontent manifests, reflected in the rise of stress-induced illnesses, autoimmune diseases, and psychiatric disorders. The article uses the metaphor of autoimmunity to describe Western societal dysfunction, drawing parallels between biological self-destruction and societal self-harm driven by hyper-individualism, economic pressures, and digital dependencies.

Objectives. – This study aims to analyze the mechanisms through which Western societies contribute to self-destructive processes, paralleling the way autoimmune diseases function within the body. It seeks to demonstrate how excessive control, consumerism, and the digital environment exacerbate stress, which in turn contributes to both physical and psychological deterioration. The philosophical question underpinning this analysis is whether the societal and economic systems in the West are undermining the self-defense mechanisms of their members, akin to an autoimmune response.

Method. – The article adopts a qualitative and theoretical approach, integrating concepts from psychology, psychoneuroimmunology, and epidemiology. The author incorporates clinical observations, epidemiological data, and philosophical reflections to explore the effects of chronic stress on mental and physical health. Drawing on psychoneuroimmunology, the research explores the bi-directional interaction between the mind, nervous system, and immune function, focusing on the relationship between stress, inflammation and autoimmune diseases.

Results. – Our exploration reveals a significant correlation between the rise of autoimmune diseases and the psychosocial stresses of Western capitalist societies. Epidemiological data support the link between chronic stress, psychiatric disorders, and autoimmune conditions. The article also highlights how the digital economy's manipulation of stress and fear (such as through FOMO) contributes to widespread psychological distress. This stress, in turn, disrupts immune function, leading to a cycle of physical and psychological degeneration.

Interpretation. – Western societies, through their relentless pursuit of control, comfort, and consumption, create environments of heightened stress that mirror the dysfunctions of autoimmune diseases, where the body turns against itself. The research suggests that modern capitalist structures are pathogenic, exacerbating stress, weakening immune resilience, and fostering mental health crises. The article concludes that a holistic approach is necessary to address this systemic dysfunction, advocating for a reconceptualization of health that integrates mental, physical, and societal well-being.

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E-mail address: poenaruinanalysis@gmail.com

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R É S U M É

Mots clés :

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Contexte. – Cet article explore les mécanismes paradoxaux du stress dans les sociétés occidentales, caractérisées par la consommation et le confort. Malgré le bien-être perçu des sociétés capitalistes modernes, un profond mécontentement psychosomatique se manifeste, reflété par l'augmentation des maladies liées au stress, des maladies auto-immunes et des troubles psychiatriques. L'article utilise la métaphore de l'auto-immunité pour décrire les dysfonctionnements des sociétés occidentales, en établissant un parallèle entre l'autodestruction biologique et les comportements autodestructeurs de la société, liés à l'hyperindividualisme, aux pressions économiques et aux dépendances numériques.

Objectifs. – Cette étude vise à analyser les mécanismes par lesquels les sociétés occidentales contribuent à des processus autodestructeurs, parallèlement au fonctionnement des maladies auto-immunes dans le corps. Elle cherche à démontrer comment le contrôle excessif, le consumérisme et l'environnement numérique exacerbent le stress, qui à son tour contribue à la détérioration physique et psychologique. La question philosophique sous-jacente est de savoir si les systèmes sociétaux et économiques de l'Occident savent les mécanismes d'autodéfense de leurs membres, à l'instar d'une réponse auto-immune.

Méthode. – L'article adopte une approche qualitative et théorique, intégrant des concepts issus de la psychologie, de la psychoneuroimmunologie et de l'épidémiologie. L'auteur intègre des observations cliniques, des données épidémiologiques et des réflexions philosophiques pour explorer les effets du stress chronique sur la santé mentale et physique. En s'appuyant sur la psychoneuroimmunologie, la recherche examine les interactions bidirectionnelles entre l'esprit, le système nerveux et la fonction immunitaire, en se concentrant sur la relation entre stress, inflammation et maladies auto-immunes.

Résultats. – Notre exploration révèle une corrélation significative entre la montée des maladies auto-immunes et les stress psychosociaux des sociétés capitalistes occidentales. Les données épidémiologiques confirment le lien entre le stress chronique, les troubles psychiatriques et les maladies auto-immunes. L'article met également en lumière la manière dont la manipulation du stress et de la peur par l'économie numérique (comme avec le FOMO) contribue à une détresse psychologique généralisée. Ce stress, à son tour, perturbe la fonction immunitaire, créant un cycle de dégénérescence physique et psychologique.

Interprétation. – Les sociétés occidentales, par leur quête incessante de contrôle, de confort et de consommation, créent des environnements de stress accru qui reflètent les dysfonctionnements des maladies auto-immunes, où le corps se retourne contre lui-même. La recherche suggère que les structures capitalistes modernes sont pathogènes, exacerbant le stress, affaiblissant la résilience immunitaire et favorisant les crises de santé mentale. L'article conclut qu'une approche holistique est nécessaire pour aborder ce dysfonctionnement systémique, plaidant pour une reconceptualisation de la santé qui intègre le bien-être mental, physique et sociétal.

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What strikes you when you arrive in the Kibera slum in Nairobi, Kenya, for a humanitarian mission as a clinical psychologist is the palpable absence of stress. Despite the extreme poverty (about a million inhabitants live in this slum, earning less than \$2 a day¹, without access to clean water, in poor hygiene and education conditions, without medical care, etc.), people seem joyful and do not complain. The population of this area (undoubtedly exposed to numerous medical, social, and political problems) seems resilient and at peace, believes in God, relies on the community, and holds different priorities and social and cultural norms compared to the West. While appearances do not always faithfully reflect internal experiences, it is important to note the difference in behavior and to discuss the accumulation of stress and its devastating effects observed in Western societies, exposed to planned obsolescence and increasingly demanding and individualistic performances.

The growing, invasive, consensual, and highly pathological stress of Western society is puzzling and concerning due to its paradoxical and unconscious dimension. Can we say that stress, as a central factor in neoliberal organizations, is inseparable from the comfort that the West keeps selling us? What are the mechanisms at play in this well-being misstep? To attempt to answer the hypothesis that the West increasingly functions like an autoimmune disease, we will unfold several observations associated with

theoretical references from psychology, biology, psychoneuroimmunology, and epidemiology. But this reflection is underpinned by a philosophical hypothesis and question: Are Western societies and their economic dictatorship undermining the physical and psychological self-defense mechanisms of their members?

To try to answer these and many other questions, I propose a theoretical, scientific, and philosophical journey, qualitative in nature, divided into four parts:

- The first part attempts to name the complexity of visible and invisible interactions in the Western digital landscape while offering theoretical perspectives that explain how they trigger a war against oneself;
- The second part illustrates the effects of this context with epidemiological data showing the increase in autoimmune diseases, alongside psychiatric illnesses, as manifestations of the addictive logic of consumption turning against oneself;
- The third part aims to clarify the mechanisms and relationships between stress, the current environment, and the immunosuppressive effects;
- The fourth part focuses on non-self objects and how they attack the self in a perverse ideological quest for comfort. These non-self objects are conceived here as internal representations forcefully projected by an environment that operates through the accumulation and agglomeration of objects and sensory experiences.

¹ Desgroppe, A., Taupin, S. (2011). Kibera: The Biggest Slum in Africa? *Les Cahiers d'Afrique de l'Est / The East African Review*, 44, 23–33. doi:10.4000/eastafrica.521.

The hygiene hypothesis (Strachan, 1989; Okada et al., 2010) might represent the starting point for these observations, leading to the metaphor that interests us. This hypothesis, which suggests that reducing exposure to microbes and infections may lead to an increase in autoimmune diseases, can be applied to the analysis of consumption standards in cybercapitalist society in several ways. Cybercapitalist society, characterized by heavy digitization, a sedentary lifestyle, and increased consumption of technology-based goods and services, indirectly influences our microbial environment and, consequently, our immune health. Additionally, the stress associated with consumption standards, as we will see, plays a key role in the (de)regulation of the immune system.

Applied metaphorically, the hygiene hypothesis helps us understand how limited exposure to life's realities (mistakes, imperfections, uncertainties, ambiguities, complexities, failures, multiple flows) in increasingly controlled environments, ideologically stable and focused on economic logic, can weaken our emotional and mental resilience. Just as some exposure to microbes is necessary for a robust immune system, accepting the uncontrollable and authentically presenting oneself are essential for healthy mental health and deep social relationships.

We will see that hygiene, cognitive-behavioral control, and digital stress now constitute a feedback loop, where the quest for perfection, control, and success, exacerbated by ideal norms imposed by social networks, increases individual stress, which in turn reinforces the need to maintain an impeccable and sanitized image, creating a perpetual cycle of anxiety and psychological pressure. Believing we are avoiding the “germs” of real life, we only exacerbate them, creating a paradox where the attempt to escape discomfort ends up amplifying that very discomfort, now intensified by addiction to the digital world.

Contemporary Observations and Theoretical Framework

Immature defense mechanisms (studied for decades in psychoanalytic psychopathology) are often associated with chronic stress. Constantly rationalizing one's actions to justify unsustainable work habits or lifestyle choices can lead to chronic stress. Prolonged stress activates the body's stress response system, including the release of stress hormones such as cortisol and adrenaline. Chronic activation of the stress response can weaken the immune system over time, making individuals more susceptible to infections, inflammation, and autoimmune disorders (a topic we will revisit). Autoimmune diseases are conditions in which the body's immune system mistakenly attacks its own tissues, perceiving them as foreign invaders. The exact origin of these diseases is complex, involving a combination of genetic, environmental, psychological, and immunological factors.

The field of psychoneuroimmunology (PNI) studies the bidirectional interactions between the mind, nervous system, and immune system (Yan, 2016, 2018). Psychological factors, including defense mechanisms, can influence immune function through neuroendocrine and neuroimmune pathways (see also Damasio's *somatic markers*, 1994). Thus, chronic stress and negative emotions associated with immature defense mechanisms can disrupt biological systems, particularly the immune system, leading to increased inflammation and weakened immune responses to pathogens. It is worth noting that contemporary literature corroborates depression (Raison & Miller, 2011) and schizophrenia with low-grade chronic inflammation. These findings highlight the intimate interconnections between inflammatory and immunological disorders and psychiatric illnesses.

When applied metaphorically to psychology, these defense mechanisms (linked to inflammation and self and narcissism dysregulation) could be seen as fostering behaviors and attitudes that prioritize material success, individual achievement, and economic efficiency. These mechanisms can, therefore, be unconsciously generated by the environmental, social, and economic pressures of modern and developed societies, leading to *economic neurosis* (Poenaru, 2023). However, these same mechanisms may unintentionally result in negative psychological consequences, in the same way that autoimmune diseases result from the immune system mistakenly attacking healthy tissues.

Are we inevitably made ill by an external and autoimmune system that overwhelms our psychosomatic capacities? Regarding autoimmune diseases, Maté (2022) notes:

Scleroderma is one of eighty related diseases classified as autoimmune, each representing a true civil war inside the body. Indeed, autoimmunity is equivalent to an attack by a person's immune system against the very organism it should be defending (Maté, 2022, pp. 69–70).

Immune-mediated inflammatory diseases (IMIDs), such as rheumatoid arthritis, Crohn's disease, ulcerative colitis, systemic lupus erythematosus, and multiple sclerosis, collectively affect 5 to 10% of the population, according to Liu et al. (2024). Though distinct, these diseases share similar pathogenic mechanisms involving chronic inflammation due to immune system dysregulation, which triggers a *civil war* against oneself.

Autoimmune diseases are among the leading causes of death among young and middle-aged women in the United States (Cooper & Stroehla, 2003). It should be noted that the United States has, since the 1930s, through fierce propaganda, established itself as the absolute model of well-being and success. Thus, the *American way of life* has become a global dream. In the United States, for decades, clinical observations suggest that the prevalence of autoimmune diseases has been increasing (Vargas-Parada, 2021), as it has in Europe.

A research team (Satoh et al., 2012) demonstrated that antinuclear antibodies (ANA) — a type of autoantibody commonly used as a biomarker for autoimmune diseases — have become progressively more prevalent in the American population over the past 25 years. The results of this research show that the overall prevalence of ANA in the population was 13.8%, indicating that a significant proportion of individuals in the United States test positive for ANA. ANA generally increased with age, with significantly higher prevalence observed in older age groups, particularly in those aged 50 to 59 and 70 and older. Additionally, ANA prevalence was significantly higher in women compared to men, with 17.8% of women and 9.6% of men testing positive for ANA.

Does this provide evidence of the substantial harmful impacts of the American and even Western lifestyle, or is it solely a matter of diagnosis and notification? Is this an issue of internal warfare caused by aggressive propaganda and both internal and global culture? It is likely that both factors (notifications and the harmful impacts of the Western lifestyle) play a role. Improved diagnostic practices have undoubtedly helped better identify cases; however, elements related to the Western lifestyle — such as diet, sedentary behavior, screen time, stress, hygiene, and cultural influences — also seem to contribute to this trend, as demonstrated by a new stream of research in lifestyle medicine. Scientific evidence shows the effectiveness of this approach in reducing cardiovascular risks, managing diabetes, preventing certain cancers, combating obesity, and even improving mental health. For example, the *Diabetes*

*Prevention Program*² study showed that changes in diet and exercise reduced the risk of type 2 diabetes by 58%, while Ornish's program (Ornish et al., 1998) revealed that lifestyle changes can reverse the progression of coronary artery disease.

The gradually complex and addictive mechanisms used by economic and media propaganda, pushing us towards continuous and ever-increasing production and consumption in the service of infinite capitalism, are undeniably one of the main risk factors (Poenaru, 2021) contributing to the propensity to develop mental and/or physical illnesses, including autoimmune diseases. This also contributes to the perpetuation and instigation of conflicts (both internal and external) that demand adaptation through increasingly strained, worn, or dysfunctional defense mechanisms. This dynamic creates internal tensions in individuals, who find themselves torn between consumption-driven ideals of success imposed by society and an inability to meet these expectations sustainably. This fuels psychic conflicts, manifested by chronic dissatisfaction, frustration, and helplessness. Socially, this spiral of overconsumption and overproduction generates interpersonal and collective conflicts as individuals and social groups compete for access to resources, social recognition, and personal validation.

In assessing risk factors to facilitate their mitigation, health professionals seem to overlook the plurality of ecosystemic etiological factors (interaction of various components of an ecological, digital, political, cultural ecosystem, etc.). Thus, when therapists encourage individuals to adapt to stressors through various coping strategies, they inadvertently conform to the norms of consumer society, neglecting a critical analysis that could facilitate mentalization and the development of a new psychological orientation adapted to the mentioned plurality and not only to productivity needs. As Fromm (2010/1991) reminds us, the dominant view of pathology, which focuses on the individual's inability to adapt to established behavioral patterns and lifestyles in society, is fundamentally flawed. We once again see that psychopathology can, as Fromm suggests, be a reaction to an abnormal context, even to a deeply sick society.

The field of clinical psychology and psychopathology, as well as psychiatry, systematically neglects examining the paradoxical consequences of the dominant culture of comfort and well-being. In contemporary society, the quest for comfort and convenience often takes precedence, with technological progress and material ease aiming to amplify convenience and reduce discomfort. Therapists, for the most part, are trained by their education and the unconscious norms of society to support the same perspective. However, comfort can generate anxiety when associated with a deep-rooted apprehension of loss, alteration, and programmed obsolescence of objects and individuals. People may find themselves overly attached to or even dependent on certain comforts, routines, or material possessions, which, as we will see later, are highly paradoxical.

Epidemiology

To illustrate our problem with some epidemiological data, note that prevalence rates in developed countries indicate that 27% of children aged 5 to 14 in Australia and 26% in the United States live with some form of long-term chronic illness. Zheng et al. (2020), in agreement with Park et al. (2013), found that about one-third of adolescents in the United States live with a chronic medical condition, often accompanied by poor mental health. According to

² Diabetes Prevention Program Research Group. (2009). 10-year follow-up of diabetes incidence and weight loss in the Diabetes Prevention Program Outcomes Study. *Lancet*, 374(9702), 1677–1686. [https://doi.org/10.1016/S0140-6736\(09\)61457-4](https://doi.org/10.1016/S0140-6736(09)61457-4).

Winkler et al., 2020, the prevalence of individuals exhibiting symptoms of at least one current mental disorder increased from a baseline level of 20.02% in 2017 to 29.63% in 2020 (during the COVID-19 pandemic).

According to U.S. Centers for Disease Control and Prevention (CDC, 2022) data, the age-adjusted rate of drug overdose deaths increased from 8.2 deaths per 100,000 people in 2002 to 32.6 in 2022. The alarming rise in overdose deaths in the U.S. reflects a major public health crisis, revealing complex dynamics related to drug use. This phenomenon is not isolated but results from the interaction between socioeconomic, psychological, medical factors, and public policies. Opioids are an easy but dangerous escape (from contemporary malaise) due to their rapid addiction potential and the risk of fatal overdoses, especially with the use of synthetic opioids such as fentanyl, which is far more potent than morphine or heroin. This crisis is likely partially related to the healthcare system's inadequate response to psychological pain. In the U.S., it has often been pointed out that medicine has focused on the rapid treatment of physical symptoms (especially pain) while neglecting the underlying psychological and socio-political aspects.

The media and scientists remind us daily that the crisis is also psychiatric, with a significant increase in decompensation cases for depression, anxiety, phobias, compulsive shopping, and excessive television watching. Moreover, social media use has been associated with increased anxiety (Moreno et al., 2020). It is also worth noting that Commercial Alert, a U.S. consumer advocacy group, reported in 2003 that the country is experiencing a true epidemic of marketing-related diseases (Stanton et al., 2017), long before the explosion of digital practices that involve simultaneous exposure to advertisements, influencers, social pressure for an ideal life, etc.

In France, according to the *Haut Conseil de la famille, de l'enfance et de l'âge*, in 2021 alone (despite the absence of robust studies on their effectiveness in children, while research shows that the difference between treated groups and control groups is very small), the consumption of psychotropic drugs among children and adolescents increased by:

- 224% for hypnotics;
- 7.5% for antipsychotics;
- 16% for anxiolytics;
- 23% for antidepressants.

These levels of increase are 2 to 20 times higher compared to the general adult population. Why are young people at risk?

A report³ published by *The Resolution Foundation* (an independent think tank based in the United Kingdom) reveals that young people in their twenties are now more likely to be out of work (due to health problems) than people in their forties. This represents a radical shift from the past, where the older a person was, the more likely they were to stop working due to illness. The report indicates that young people currently have the worst mental health of all age groups, reversing the trend observed two decades ago when they had the lowest rate of common mental disorders. In 2021/22, 34% of young people aged 18 to 24 reported symptoms of mental disorders such as depression, anxiety, or bipolar disorder, compared to 24% in 2000.

According to *The Lancet* (Geoffroy et al., 2022) and many other recent articles, there is a growing number of deaths by suicide and emergency room visits for suicidal ideation and self-harm among children. In Switzerland, it was announced in December 2022 that the mental health of young people has suffered greatly during the pandemic years, especially among females. According to the Swiss

³ Available online (accessed on 1.9.2024): <https://www.resolutionfoundation.org/publications/weve-only-just-begun/>.

Federal Office of Statistics⁴, between 2020 and 2021, hospitalizations of girls and young women aged 10 to 24 for mental and behavioral disorders increased by 26%.

Certainly, specialists point to the COVID-19 pandemic, which has had its undeniable psychological effects. But nothing is said about the exponential exposure during this period to digital content that represents as many economic codes injected into the unconscious and has high stressful and mutilating potential. Can variations in screen time between generations also explain the new pathological trends concerning young people?

According to the statistical site *What's The Big Data*⁵:

- Generation Z (people born between 1996 and 2010) spends about 9 hours in front of a screen each day;
- the generations preceding Millennials, i.e., Generation X and Baby Boomers, have an average screen time of 169 minutes and 136 minutes, respectively;
- there was a peak in daily average screen time, reaching 7.7 hours during the COVID-19 pandemic.

It is difficult to assert that the technological and scientific advances of recent years are responsible for the notification and diagnosis of these epidemiological developments. It is equally difficult to explain in this way the threefold increase in the number of suicides among girls aged 12 to 14 in the United States immediately after the iPhone was introduced to the market. This happened in the period between 2007 and 2015 alone. [Twenge \(2017\)](#) bases her observations on a longitudinal study in the United States that has been ongoing for several decades and notes that the new generation has been swept away by a veritable digital tsunami that continues to wreak havoc.

Stress, Environment, and Immunosuppression

We, therefore, observe in “developed” societies a continuous paradoxical nature of anxieties, their exacerbation, and polarization: freedom-dependence, obesity-thinness, performance-exhaustion, competitiveness-opposition, power-helplessness, social networks/isolation, excitement-frustration, reward-punishment, etc. It is hard to imagine that there are no circular causal links between these different factors and that they do not initiate and reinforce a war against the self. Moreover, this dynamic closely resembles that observed in the opposite processes described in the field of addiction.

In the context of addiction, opposing processes refer to the physiological and psychological mechanisms that the brain uses to counter the effects of repeated substance use ([Solomon, 1980](#)). The opposing process model suggests that for every initial hedonic or emotional reaction (whether positive or negative), an opposing process (counter-reaction) is activated to restore the central nervous system's homeostatic balance, which cannot tolerate excesses in either pleasure or displeasure. Initially, when an individual consumes an addictive substance, they may experience euphoria or intense pleasure, which is not tolerated by the homeostatic system. Stress plays a significant role in addiction by influencing both the initiation and maintenance of substance use. Paradoxically, individuals may resort to addictive substances as a coping mechanism to relieve stress, which by default leads to a cycle of dependency. Chronic stress, as highlighted in this work, can dysregulate the immune system, leading to inflammation and potentially exacerbating “compensatory” addictive behaviors. We can thus imagine, within the digital context alone, the avalanche of opposing processes to which an

individual is exposed in their voluntary and involuntary quest for an agglomeration of gratifications.

Several issues, typologies, mechanisms, and dynamics related to stress in contemporary Western societies can be observed ([Poenaru, 2023](#)):

- digital stress ([Reinecke et al., 2016](#));
- the level of stress as the main source of information for neuro-nanomarketing;
- the hypothesis of a digital regime intentionally inducing an accumulation of micro-traumas (close to the field of post-traumatic stress) leading to compulsive repetition and addiction, profitable for industries;
- neuro-cognitive-behavioral and emotional manipulations based on stress, fear, and the ideology of risk, leading to increased online engagement (the main objective of cybercapitalism);
- anxiety and stress in the face of a reality that demands constant adaptation from individuals to cope with all kinds of accelerations ([Neidich, 2014](#)) in the risk society ([Beck, 1992](#));
- peer stress and behavior (social pressures that individuals face within their peer groups) contributing to plunging individuals into addiction ([Courtwright, 2019](#));
- social stress leading to neurovascular pathologies responsible for depression ([Ménard et al., 2017](#));
- the stressful impact of purchase decisions (associated with the burden of wage slavery);
- the compulsive search for hypnotic entertainment (supposed to reduce stress) injects the hypnotized brain with unconscious consumerist codes that generate new sources of stress;
- the genetic and epigenetic transmission of stress ([Zaidan, Leshem, & Gaisler-Salomon, 2013](#)), suggesting that beyond genetics, stress and anxiety alter epigenetics or how genes are expressed.

The stress condition is intrinsically alarming, placing both body and mind in a state of heightened vigilance, even urgency. Regarding fear, inseparable from stress, one can hypothesize that the deliberate use of fear by politico-economic authorities could aim to cultivate sensitivity to specific stimuli ([Poenaru, 2023](#)). This sensitivity is maintained at the neuronal level by strengthening synapses that facilitate such responses. Experiences of conditioned fear, where neutral stimuli become associated with aversive experiences, rely on synaptic reinforcement, particularly in the amygdala, a key brain region for processing emotions. Synaptic strengthening in the amygdala can amplify fear responses to specific stimuli ([LeDoux, 2000](#)). The constant diversification of fear sources prevents the nervous system from habituating, maintaining continuous stimulation of fear and stress responses.

Repeated exposure to stress can lead to hyperactivity of the amygdala, which can reinforce fear and anxiety responses ([McEwen, 2007](#)), requiring [economic] adaptive responses. Through repetitive messages and constant danger signals (e.g., security threats, economic crises), authorities or dominant economic classes can reinforce the neural circuits of fear, creating a population more reactive to stimuli that justify their actions or policies. The fear of missing out (FOMO⁶), fueled by technologies

⁴ OFS (2022). Traitements pour troubles psychiques chez les jeunes en 2020 et 2021. Disponible en ligne : <https://www.bfs.admin.ch/bfs/fr/home.assetdetail.23605659.html>.

⁵ Source (accessed on 1.9.2024) : <https://whatsthebigdata.com/average-screen-time-stats/>.

⁶ The term FOMO (Fear Of Missing Out) is generally used to describe the feeling of anxiety or insecurity (programmed by digital engineers) that can arise from the fear that others are having more fun, exciting, or interesting experiences than oneself, and that one is missing out on these experiences. FOMO can cause individuals to feel compelled to participate in activities or social events, even if they are not interested or lack the time or resources to do so. Thus, it involves adopting behaviors and cognitions (injected by the economic environment) that may conflict with one's own self. This fear can also lead to excessive use of social media and technology in order to stay connected and informed about others' activities (to the benefit of corporations), out of fear of social exclusion, which can further exacerbate feelings of anxiety and insecurity inherent in the compulsive-addictive use of the Internet induced by its patterns.

and social networks, is emblematic of the countless stress-generating mechanisms perpetuated by the cybernetic domain.

Our analysis suggests that the culture of risk and fear, deliberately disseminated by politico-economic interests, also serves to strengthen group cohesion, which in turn stimulates collective online engagement. This culture not only reinforces synaptic sensitization but also encourages behaviors such as excessive consumption and paradoxical exposure to perceived threats. Consequently, this culture has become a commodity, leading to increased “protective” consumption behaviors and increased sales of anxiolytic medications.

Children grow up in an environment steeped in fears of kidnapping, assault, and accidents, perpetuating a cycle of anxiety. To this, we can add the constant injection (through education) of the fear of not securing a good future or achieving a strong economic status. However, statistical realities often diverge from these fears. The danger does not really lie where the dominant powers tend to implant it. It is rather found in an environment that tends to condition and saturate us, like Pavlov's dogs and Lorenz's geese, with mainly unconscious economic stimuli, which have become a global consensus and a worldwide source of diseases.

The context we are concerned with therefore represents a source of exponential stress and *allostatic load*⁷ (Juster, McEwen, & Lupien, 2010). It is clear: we cannot remain trapped in the animal logic of *fight, flight, freeze* (simultaneous combat and war, flight, and immobilization in front of a screen that exploits and distorts our unconscious attraction to negative stimuli) without becoming increasingly stressed. Psychosocial stress produces changes in cognition, affect, and behavior (Wolf, 2018), while a growing number of studies demonstrate the effects of stress on inflammatory reactions and the immune system (Yan, 2016). Pruett (2003) reminds us that there is now irrefutable evidence showing that stress responses can cause clinically relevant immunosuppression as well as other types of immune system dysfunction. The production or action of stress mediators, as mentioned above, are the main culprits of undesirable immunological effects.

It is important, in this context, to remember that the immune system naturally wages battles against parasites: bacteria, viruses, fungi, pathogens, etc. This system launches devastating attacks against pathogens and malignant tumors while limiting collateral damage to healthy tissues (self-tolerance). However, sometimes the immune system triggers a harmful reaction against triggers (antigens) expressed by healthy and normal tissues, such as skin, the pancreas, or joints. All of this can be described as “internal immunological warfare” (against oneself), as suggested by Maté (2022).

Is it a matter of intolerance towards oneself and the unbearable somato-political subjectivity produced by capitalism? Are these attacks directed against “non-self” objects forcefully injected-projected-internalized within us by the belligerent, insatiable, extractivist, and inoculationist economic ecosystem? Are these objects from the paranoid realm, well-masked by entertainment regimes? Is this the only available way for the individual to fight against the deprivation of their own subjectivity and autonomy by the dictatorial ecosystem surrounding us? We will return below to non-self objects.

Inflammation, another major consequence of stress linked to immune deficits, is increasingly recognized as a factor responsible

⁷ *Allostatic load* refers to the cumulative burden of chronic stress and life events. Juster, McEwen, and Lupien (2010) suggest that by incorporating an allostatic load index representing the functioning of the neuroendocrine, immune, metabolic, and cardiovascular systems, numerous studies have shown better predictions of morbidity and mortality beyond the traditional detection methods used in biomedical practice.

for many diseases. As previously mentioned, research cites the role of hypothalamic-pituitary-adrenal (HPA) axis dysregulation in diseases where inflammation is indicated. The normal function of glucocorticoids plays an important role in inflammation: it acts by reducing inflammation and has an immunological and metabolic effect. Prolonged exposure to high levels of cortisol (the stress hormone) and the resulting HPA axis dysfunction interferes with anti-inflammatory and immunological processes, note Jones and Gwenin (2020). High circulating cortisol levels affect immune cells by binding to their receptors, leading to the production of pro-inflammatory cytokines, which causes inflammation and immune deficits, as well as other metabolic consequences.

Psychoneuroimmunology (PNI), mentioned earlier, is the field that provides the most evidence on the dynamic interactions between the mind, nervous system, and immune system. PNI researchers examine how acute and chronic stressors, such as psychological stress, trauma, or environmental stressors, impact immune function. They study the bidirectional communication pathways between the brain and the immune system, including the role of the HPA axis, the autonomic nervous system (ANS), and the central nervous system (CNS) in regulating immune responses. The field of PNI also examines how psychological factors, such as personality traits, coping strategies, social support, and mental health disorders, influence immune function and susceptibility to infectious diseases, autoimmune disorders, and inflammatory states. Researchers also explore the role of neuroendocrine and immune interactions in the pathogenesis and progression of various diseases, including autoimmune disorders, cancer, cardiovascular disease, neurodegenerative diseases, and mental health disorders.

From the perspective of PNI, as described by Yan in 2016:

- a better understanding of stress-inflammation networks promises to improve therapeutic outcomes across a range of diseases, including multiple sclerosis, cancer, and cardiovascular conditions;
- complex cytokine networks are involved in HPA axis affection, influencing neuropsychiatric conditions such as anxiety, depression, fatigue, cognitive impairments, schizophrenia, and sleep disorders;
- in the field of schizophrenia, the interaction between the immune, endocrine, and nervous systems is emerging as a key mechanism;
- bidirectional interactions between the nervous and immune systems play crucial roles in inflammation, forging links between psychosocial stress, aging, and chronic diseases;
- PNI principles offer insights into understanding the underlying mechanisms of comorbid disorders, covering cardiovascular disease and psychiatric conditions;
- individual variability and risk factors impacting psychoneurological symptoms in cancer patients include perceived stress, cognitive impairments, HPA axis dysfunction, and inflammation.

As an example, grief is a stressful condition that can affect the activities of natural killer (NK) cells. Personality is an important factor in such conditions, as individuals with the trait of “affective negativity” are more prone to depression and anxiety compared to those without these negative traits. Individual patterns of psychophysiological reactions, such as offensive aggressive behavior, have been identified as the best predictor of immune-related risk factors for many diseases. An example is that cynical hostility can be a reliable predictor of cardiovascular disease. Such observations indicate that individual psychological conditions, such as personality, can be crucial in detecting personalized psychological and physiological changes (Yan, 2016, p. 6).

The Attack of “Non-Self” Objects and the Struggle for Comfort

After this multi-level detour aimed at familiarizing ourselves with the complexity of interactions, mechanisms, and dynamics attached to stress within contemporary cybercapitalist society, I propose focusing on the particular characteristics of the non-self object and its psycho-somatic effects.

It is evident from the previous elements that stress, alongside its corollary, anxiety, can play a central role in triggering autoimmune diseases. The theoretical foundations, observations, and hypotheses mentioned above bring us back to the question underpinning our research: Could the paradoxical creation of heightened psychological protection, potentially influenced by the ideology of control and risk, be responsible for the degradation of both psychological and biological defense mechanisms, ultimately leading to a state of war against oneself? The psychoneuroimmunological perspective and the strong scientific links it proposes tend to confirm this hypothesis. Sigmund Freud (1926) and Anna Freud (1936) developed, in psychoanalysis, the idea that anxiety/anguish can weaken the Ego's defense mechanisms. This concept is based on the idea that individuals develop unconscious defense mechanisms as adaptive responses to manage internal conflicts, stressors, and anxieties. However, excessive reliance on or rigid adherence to these defenses can ultimately exacerbate anxiety and other psychological functioning.

Although defense mechanisms initially serve a protective purpose, they can pose challenges when overused (Vaillant, 1992) or when they hinder healthy emotional processing. Repression, which involves suppressing unpleasant thoughts or memories into the unconscious, may offer temporary relief from anxiety but could lead to the accumulation of unresolved emotional conflicts over time. Similarly, denial, while radically protecting individuals from disturbing truths, can (when used too frequently) impede the recognition and resolution of underlying problems, perpetuating a cycle of anxiety and avoidance, especially if it occurs in an environment that continually aggravates its stressors.

By erecting barriers between the conscious mind and the unconscious, individuals may become disconnected from their true selves, leading to feelings of emptiness, alienation, or existential angst. The creation of psychological protections may thus paradoxically contribute to weakening defense mechanisms by fostering dependence on maladaptive coping strategies. The inflexible and methodical maintenance of immature defense mechanisms can further disrupt interpersonal relationships, as well as adapted interactions within the ecosystem.

“Non-self objects” (Poenaru, 2023) could be defined as representations and affects (constituting highly conflicted and unnamable non-self drives) induced by the codes of consumer society and the economic dictatorship to which we are all subjected to varying degrees. In psychoanalysis, the concept of “object” primarily refers to that toward which a drive is directed to achieve satisfaction. This term does not necessarily refer to a physical object but rather anything that can satisfy a drive, whether a person, a body part, an idea, or even a symbol (Laplanche & Pontalis, 1997). Thus, the object is what captures libidinal (or drive) energy and helps alleviate the tension created by the drive.

Non-self objects can be seen as entities or representations toward which drives are directed but that do not originate from the authentic self or the individual as such but rather from the cognitive overload operating in an addictive register to create an artificial self. They function as projections from the outside that the individual forcibly integrates in increasing numbers (due to the prevailing logic of accumulation) without being able to appropriate them or make them their own. As external projections, these objects could be seen as equivalents of paranoid entities because

they are perceived as potential threats to the integrity of the self. Are we not on the fringe between projection (to rid oneself of intolerable objects) and the reality of a hostile, persecutory, and invasive context?

These non-self objects, integrated without conscious consent, create a discrepancy between what the individual feels as their authentic self and what is perceived as external intrusions. The difficulty in integrating these objects thus leads to a sense of fragmentation, loss of control, and a feeling of invasion. In paranoia, internal anxieties are projected onto external objects, turning them into threats. However, what complicates the contemporary situation is the actually hostile and persecutory nature of the social and technological context in which individuals evolve. Modern reality is marked by the omnipresence of surveillance technologies, data manipulation (Wylie, 2019), and information and behavior control (Zuboff, 2019), creating an environment where fears of manipulation and domination are not merely products of the imagination but have a real basis.

The question of the fringe highlights a troubling dynamic: how do we differentiate rational fears based on real threats from pathological anxieties arising from an excessive or distorted interpretation of reality? This boundary becomes particularly tenuous in a world where contradictory and manipulated information abounds. Individuals may perceive their environment as threatening not only because they project their fears but also because elements of that environment are genuinely coercive or manipulative. Paranoia and reality are then two sides of the same coin, profitable for the digital economy: it involves expelling through projection what has been forcefully internalized and cannot be integrated by the self or Ego.

Let us not forget that the creation of paranoia groups, as evidenced by Christopher Wylie⁸ (2019), is part of the social network industry's program. According to Wylie, Cambridge Analytica used microtargeting techniques based on personal data to identify groups of individuals likely to react strongly to alarmist or polarizing messages. Once these groups were identified, the strategy was to bombard these individuals with content designed to exacerbate their fears and reinforce their sense of threat or injustice. By cultivating a climate of paranoia, where users believed that their values, safety, or way of life were under threat, Cambridge Analytica could encourage these people to engage actively, whether by sharing content, commenting, or participating in online discussions. The psychological mechanisms underlying this strategy rely on the fact that strong emotions, such as fear and anger, are powerful drivers of engagement. Polarizing or paranoid content triggers intense emotional responses, increasing the likelihood that users will react, share, or spread this content. These interactions then amplify the reach of these messages, creating a feedback loop where paranoid ideas spread rapidly and gain momentum. Is this not one of the common strategies of social networks?

By bombarding these groups with alarmist or extremist messages, social networks fragment the audience into echo chambers. These echo chambers act like “autoimmune reactions” in that they reinforce only certain perspectives, often hostile to other groups, fostering social division and hostility rather than unity. Society, like an immune system, begins attacking itself, with individuals seeing each other as threats rather than part of a shared community. The sense of paranoia becomes self-reinforcing, as

⁸ Christopher Wylie is a data scientist and former employee of Cambridge Analytica, a political consulting firm involved in a major scandal in 2018 regarding the unauthorized use of personal data for political purposes. Wylie gained fame as a whistleblower when he revealed how Cambridge Analytica exploited the data of millions of Facebook users to influence political campaigns, notably during the 2016 U.S. presidential election and the Brexit referendum in the United Kingdom.

users are fed content that repeatedly tells them they are under threat. This creates an environment where people's psychological "immune systems" (their sense of stability, security, and trust in society) are continuously on high alert, leading to chronic stress and alienation. Just as autoimmune diseases escalate the body's response to perceived threats (which may not exist or be misinterpreted), the polarization strategies of social media lead to extremist behaviors. Users, driven by fear, anger, or a sense of victimization, become more aggressive, share more polarizing content, or even act out in harmful ways. The emotional feedback loop mirrors the self-destructive nature of autoimmune conditions, where the body overreacts and harms itself in the process.

Non-self objects are therefore products of external influence, particularly the codes imposed by consumer society and profit-driven economic dynamics. These objects constitute false desires, needs, and values that do not stem from the individual's intrinsic needs but are instead induced by forces that generate hostility, addictions and internal agglomerations (sensory and mnemonic). Cybercapitalism, characterized by the omnipresence of digital technologies and an unprecedented acceleration in the flow of [negative] information, content, and objects, imposes considerable cognitive demands on individuals. These demands exacerbate the creation of non-self objects as artificial selves, leading to cognitive overload that profoundly affects health and decision-making capacity.

These non-self objects, being in conflict with the individual's authentic needs and desires, generate conflicting drives. The drive to consume or the compulsion to accumulate, encouraged by messages from consumer society, risks conflicting with the individual's deep psychic needs for autonomy, dignity, emotional and spiritual fulfillment, and psychological well-being. The relentless search for artificial satisfaction through non-self objects imposes pressure on the Ego, causing fragmentation and dilution of identity. Constantly being pushed to seek objects that do not meet their real needs, individuals may feel out of sync with their own desires and emotions, leading to an identity crisis.

The codes that interest us involve the permanent exposure and internalization of new economic, cultural, and political codes attached to propaganda and digital practices. They are also the result of visual invasion and *scopicolonialism*, which abundantly feed voyeuristic-exhibitionist desire and the primary cortex (those closest to reflex areas) while stimulating bio-psychic boundaries. All of this suggests a massive parasitism of the containing psychic function, which risks having a traumatic effect due to an excess of "non-self" stimuli integrated into erratic drive configurations, resulting in false drives whose objects do not serve the integrity of the Ego. Bion (1962) suggested long before the digital world that in cases of sensory agglomerations, subjective protections are replaced by confused barriers between the conscious and unconscious, between self and non-self.

Opposing processes, mentioned earlier, are a central concept in understanding the dynamics of addiction, whether related to substances, objects, or behaviors. This mechanism is fundamental to understanding how social media use, for example, can lead to a form of addiction that is not unrelated to new dysfunctional drive configurations centered on opposing agglomerations.

The activation of conflicting non-self drives can lead to self-aggression (the war against one's own self mentioned earlier), with the self becoming intolerable, tense, and confused. When individuals fail to satisfy their (artificial) drives through non-self objects, they may experience intense frustration, which can manifest as aggression turned against themselves. This results in self-devaluation, excessive self-discipline, or behaviors harmful to their well-being. For example, according to Twenge (2020), after a period of stability in the early 2000s, the prevalence of mental health challenges among adolescents and young adults in the United States began to rise in the early 2010s. This shift was

marked by significant increases in depression, anxiety, loneliness, self-harm, suicidal thoughts, suicide attempts, and completed suicides, with the increases being particularly pronounced among [again] girls and young women — the epidemiological data mentioned earlier illustrate these clinical phenomena. While progress in gender equality has been made, the structures of cybercapitalism reinforce existing gender disparities. By consolidating economic, psychological, and social inequalities, the digital economy disproportionately affects women, making them primary victims in a system that benefits once again from gendered exploitation and manipulation.

There is growing consensus that these trends may be linked to increased technology use. We also mentioned the example of France, where the consumption of psychotropic drugs among children and adolescents increased by 2 to 20 times compared to the adult population in 2021, which can only suggest confirmation of Twenge's (2017, 2020) hypotheses.

In the current digital ecosystem, we are forced to remain focused on the emergence of new "non-self" content that guarantees our social and environmental integration while "guaranteeing" the reduction of the risk of exclusion. Yet exclusion represents a secondary threat since it exposes us to mental illness, which can only ultimately lead to social and economic exclusion. For all of this conflicts with both psychic and physical homeostasis. Subjectivity, faced with the dictatorship of the future, progress, and infinite accumulation, quickly becomes obsolete (the planned obsolescence of the self modeled after the obsolescence of machines), always susceptible to being marginalized, degraded, eliminated, etc. Fear and its corollary, stress, are the main vectors of this profitable (for the industry) dehumanization program.

In autoimmune diseases, confusion between the body itself, its defense mechanisms, and pathogens is at the heart of the disruption we are investigating. Normally, the immune system is responsible for distinguishing between "self" and "non-self" entities, meaning that it recognizes and tolerates the body's own tissues while attacking foreign invaders such as viruses and bacteria. A proposed mechanism for breaking self-tolerance involves molecular mimicry, where foreign antigens from pathogens resemble autoantigens present in the body (Wucherpfennig, 2001). An antigen is a molecule or substance capable of triggering an immune response in the body. Antigens can be foreign substances, such as bacteria, viruses, or other pathogens, or they can be autoantigens, which are molecules produced by the body's own cells. When the immune system mounts a response against an invading pathogen, it may inadvertently target similar autoantigens, leading to an autoimmune reaction. And what about mimicry and memes in cybercapitalism? Could mimicry and memes lead to the destruction of the self?

In the realm of capitalism, mimicry plays a significant role in shaping consumer behavior, market trends, and societal norms. Capitalist economies rely on advertising, branding, and consumer culture to promote products and lifestyles, often leading to the emulation of certain behaviors or consumption patterns perceived as desirable or aspirational. Individuals automatically mimic others' consumption habits, driven by the desire for social status, validation, or belonging within consumer societies. Memes within capitalist systems (Shifman, 2013) encompass not only symbols or cultural trends but also ideological constructs and narratives that perpetuate and legitimize capitalist principles. Ideas such as the pursuit of individual success, the glorification of entrepreneurship, or the valorization of consumption can be considered memes that propagate within Western societies, shaping collective attitudes, values, and behaviors.

These primarily unconscious mechanisms, among many others to which the bio-psycho-social individual is exposed, could contribute to the confusion between self and environment,

between natural and induced behavior, between personal and artificial/distorted representations, and between one's own antigens and those of pathogens. Consequently, they may lead to a psychodynamic conflict against oneself and one's own biology. We can propose the interpretation and hypothesis that capitalism, with its deep scientific understanding of human psychology and physiology, manipulates our desires and needs to falsify them, thereby creating confusion between self and non-self as long as the self is parasitized by codes assumed to be natural. The naturalization of these codes is created through education, norms, policies, and social pressure.

Technology – or applied science – has confronted mankind with problems of profound gravity. The very survival of mankind depends on a satisfactory solution of these problems. It is a matter of creating the kind of social institutions and traditions without which the new tools must inevitably bring disaster of the worst kind (Einstein, 2011/1950, pp. 13–14).

One way capitalism achieves the naturalization of economic codes is through the commodification of goods and services. By turning essential aspects of life, such as food, housing, and healthcare, into commodities that can be bought and sold, capitalism creates a dependency on consumption to meet basic needs. Take food, for example. The link between food, stress, and the immune system is complex, bidirectional, and multifaceted. Proper nutrition plays a crucial role in maintaining a healthy immune system. There is a bidirectional communication pathway between the gut, brain, and immune system known as the gut-brain-immune axis (Yan, 2018). The gut microbiota, composed of billions of microorganisms, plays a vital role in immune regulation. Stress can disrupt the balance of the gut microbiota, leading to inflammation and immune dysfunction. Certain dietary patterns, such as high consumption of processed foods, sugary snacks, and caffeine, can exacerbate stress and contribute to inflammation in the body. Thus, food dependency and addiction (Levin Pelchat, 2009) may stem from various interrelated psychological, physiological, and social factors related to the primary need for food: reward pathways, emotional regulation, habit formation, social and cultural influences, advertising, marketing, and biological factors.

Neuro-immune functions are influenced by the human microbiota, particularly the multidirectional communications in the gut-brain-immune (MGB) axis, rather than by one or two neurotransmitters or cytokines. The human microbiota is an ecosystem that plays a key role in visceral perception, drug and carcinogen neutralization, and systemic inflammation. The dynamic interactions and balances in the MGB axis are essential for the prevention and treatment of various inflammatory diseases, from depression to diabetes (Yan, 2018, p. 4).

This paradigmatic dependency on the system that interests us may also lead to a blurring of the boundaries between self and non-self, as individuals may come to define themselves by their possessions or consumption habits: *We are what we eat*. Human beings can largely be defined by their sensory experiences and interactions with the material world, including the food they consume.

The relentless pursuit of profit by capitalism often leads to the exploitation of human labor and natural resources. Workers may become alienated from their work, feeling disconnected from the products they produce and the value they create (Marx, 1867). They are thus, according to Marx, reduced to the triangle of accumulation, commodity fetishism, and alienation. This last point can contribute to a sense of disconnection from the self and the surrounding world, with individuals becoming mere cogs in the capitalist machine, devoid of agency and purpose beyond serving

the interests of capital. The omnipresent influence of capitalism, as previously suggested, extends beyond the economic realm and infiltrates various aspects of society, including culture, media, and politics. Through advertising, propaganda, and consumer culture, capitalism shapes our desires, aspirations, identities, and bodies. Einstein (2011/1950) understood it: *The economic anarchy of capitalist society as it exists today is, in my opinion, the real source of the evil* (p. 6).

This bio-psycho-social transformation thus blurs the boundaries between self and non-self, as individuals internalize (unconsciously, from a very young age) capitalist values and norms without being able to truly question their validity or consequences. Viewed from this angle, the confusion we address could potentially affect biological antigens and psychological defenses within the complex interaction examined by PNI. This scientific field, as mentioned earlier, illustrates how multiple psychological factors can influence our biology, including stress response, immune function, gene expression, brain structure and function, health behaviors, social relationships, placebo and nocebo effects, and much more.

It is worth noting that in capitalist societies, the creation of cumulative comfort exposed simultaneously to obsolescence is often associated with the injection of fear concerning the potential loss of this comfort, motivated by reasons of consumption, productivity, and profit. Once again, these are non-self objects that must be continually integrated and against which we must defend ourselves. This context generates both artificial and genuine anxiety related to the comfort zone and its possible loss. Such a paradoxical zone can induce physiological responses, representing the body's natural reaction to stress and perceived threats. Individuals facing comfort zone anxiety may resort to negative thoughts, catastrophizing, or irrational thought patterns. They may fixate on potential catastrophic scenarios or doubt their ability to meet the new challenges dictated by social consumption norms. Situations outside the comfort zone that provoke anxiety can trigger feelings of fear, apprehension, insecurity, or inadequacy.

To exacerbate the artificial anxiety resulting from the disparity between environmental demands and personal capacities, individuals are bombarded with messages equating happiness with consumption and the accumulation of wealth. The systematic dissemination of narratives about economic insecurity can further exacerbate anxiety related to the comfort zone, prompting individuals to prioritize financial stability and security over personal growth or exploration. The fear of unemployment or underemployment can deter individuals from taking risks or seizing new opportunities outside their current employment situation. This locks individuals into a vicious cycle of fear and alienation, ultimately leading to anxiety about survival and a long-term erosion of personal identity. Is this why the number of autoimmune disease cases increases after age 50?

Constant exposure to social media, news, and online content contributes to a sense of information overload (*allostatic load*) and aggravates anxiety, leading to decision paralysis, and repression of truth, representations, and emotions associated with it. In an attempt to cope with this flood of information and stress, individuals may retreat into familiar routines and comfort zones, avoiding the uncertainty of new experiences and alternatives. However, one could argue that this plays into the main agenda of capitalism: by maintaining a delicate balance between comfort and anxiety, it discourages choices that are not profitable for the economy as well as the development of critical thinking.

It is clear that the pursuit of well-being yields positive outcomes such as happiness, fulfillment, and satisfaction. However, it also introduces stressors, pressures, and anxieties, especially when individuals feel overwhelmed by the expectations of accumulation or perceive obstacles hindering their desired state

of well-being, dictated by the alienation industry. Consequently, individuals worry about not meeting societal norms or expectations, generating feelings of inadequacy and self-doubt, perpetuating a continuous struggle against a self constantly confronted with obsolescence in the face of the relentless pace of capitalist development. Social comparison, particularly through social media platforms, exacerbates anxiety related to well-being. Persistent exposure to carefully curated representations of seemingly perfect lives can engender feelings of inadequacy, jealousy, or fear of missing out (FOMO), further fueling anxiety about one's own well-being while reinforcing the confusion between self and non-self.

Perspectives

We believe that the psychoneuroimmunological entanglement offers a holistic (albeit highly complex) view of the side effects of contemporary societies guided by the ideology of progress and well-being. PNI invites clinicians to promote guidelines that take into account stress management, social support, physical activity, balanced nutrition (nutritional counseling), autonomic nervous system regulation, digital hygiene, sleep hygiene, psychoeducation, pharmacological interventions (if necessary), behavioral activation, progress monitoring over time, etc. While the psychodynamic approach is not the primary focus of PNI research, its principles and techniques can complement and enrich the treatment of stress-related disorders by providing a deeper understanding of the psychological factors (and the conflicting drives associated with them, as discussed) influencing immune function and stress resilience.

PNI can inform psychodynamic therapists about complex internal dynamics that cannot be reduced to psychological mechanisms alone, as they are themselves influenced by environmental, biological, social, and economic stressors, as well as genetics and epigenetics. We support the idea that the critical perspective aimed at identifying the unconscious representations underlying each individual's systemic PNI profile could be at the heart of the psychodynamic approach, simultaneously involving the identification of early causes, interpersonal relationships, defense mechanisms, and drive configurations (representations and affects related to parents and loved ones, but also to the economic environment that shapes the drive life) that repeat themselves in object relations. We must complement the above with philosophical questions that scrutinize both individual values (such as individualism, autonomy, free will, solidarity, altruism, humility, modesty, etc.) and those relevant to society. This addition is based on the principle that philosophy is one of the cornerstones of human existence and civilization. The mentalization (Debbané, 2018) offered by this multidisciplinary approach can improve awareness, flexibility, adaptability, emotional regulation, interpersonal relationships, integration of body and mind, and ultimately, well-being.

The medical, psychiatric, and psychological clinic is daily confronted with patients who express, through various pathologies and symptoms, the war against the self generated by capitalism and, more recently, by cybercapitalism. Unfortunately, as suggested earlier, clinical tools and approaches also reflect the dominant ideology of consumption and production, and health professionals themselves may be engulfed in this dynamic while struggling to apply a critical perspective.

Describing the West as an autoimmune disease is, in our view, a metaphor highlighting perceived self-destructive tendencies and internal conflicts within Western cultures. The metaphor suggests that certain aspects of Western civilization (and its individuals), such as consumerism, individualism, and unchecked capitalism,

have led to dysfunctions and social and individual divisions akin to those observed in autoimmune diseases, where the immune system attacks its own body.

If our hypothesis is correct (and we are dealing, among other things, with unconscious codes), we must, from a clinical and theoretical standpoint, fight against the repressions that this can generate at the individual, institutional, and societal levels. One of the dilemmas posed by this perspective is to develop strategies to dismantle these resistances.

Fromm's (2010) perspective, highlighted earlier, invites us to consider psychopathology not only as an individual affliction but as a symptom of a broader societal malaise. PNI, along with cultural psychology, cognitive sociology, behavioral economics, consumer neuroscience, and epidemiological data, provides us with evidence supporting this ongoing interdependence. Rather than viewing mental health issues solely through the lens of personal inadequacy or dysfunction, Fromm and PNI, to name just a few examples, encourage us to examine the socio-cultural, political, and medical context in which psychopathology occurs. In doing so, this highlights the interconnection between individual well-being and societal health, emphasizing the need for systemic interventions and social reforms to address the root causes of psychological distress.

Clinical interventions informed by PNI can be multifaceted, as suggested earlier, encompassing approaches that target both the psychological and physiological aspects of stress. By integrating these guidelines into clinical practice, health professionals can offer comprehensive, evidence-based interventions to support individuals in managing stress, strengthening immune resilience, and improving overall well-being in Western societies and beyond.

Finally, this work presents a series of methodological flaws to consider in the pursuit of research in the field of the *economic unconscious* in which the author is engaged. This exploration is not based on a rigorous and exhaustive study of the scientific literature and relies more on major trends observed in certain specific areas and on the author's clinical and philosophical experience rather than a methodical research approach. This study adopts a qualitative and philosophical approach, which limits the application of quantitative or empirical methods to validate the proposed hypotheses.

It should be noted that the complexity and plurality of factors involved in analyzing the Western clinical-economic landscape make it extremely difficult to develop robust quantitative studies that fully confirm the hypotheses put forward. Indeed, the multidimensional nature of the interactions between psychological, biological, immune, and socio-economic mechanisms makes a quantitative approach insufficient to capture the depth of the dynamics studied. Such an approach, while valuable for measuring certain aspects, risks reducing the richness of the observed phenomena to overly simplified variables.

Moreover, in fields such as psychoneuroimmunology or the impact of the digital environment on mental and immune health, the complex interactions between individuals and their context (cultural, social, economic, technological) are often difficult to adequately model using quantitative methods alone. A qualitative approach, which allows for the exploration of symbolic, subjective, and relational dimensions, is therefore more suited to this type of framework. It allows for more nuanced reflection, although less generalizable in statistical terms. Nonetheless, we have, as we have seen, numerous studies that confirm the clinical evolution of contemporary Western society.

Disclosure of interest

The author declares that he has no competing interest.

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