PERFORMANCE PSYCHOLOGY AND STRATEGIC RESILIENCE. MOSAIC

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The article is intended to demonstrate the complementarity of psychological performance and strategic resilience, to present some of the theoretical foundations related to performance and resilience as well as the main evidence-based optimization techniques, and some of the identified applications in strategic fields – military, crisis management, intelligence, space programs, especially considering the current volatile, uncertain, complex and ambiguous contexts, where both sustained focus and flexibility are paramount. To meet these objectives, qualitative research methods are employed, particularly grounded theory, namely an inductive approach meant to allow for the formulation of a new theory, probable but not certain, based on the observed patterns, as well as of further research questions.

Keywords: performance psychology; strategic resilience; VUCA contexts; adaptation;

INTRODUCTION

The fact that contemporary world is undergoing major and fast changes, especially as a result of technological progress, is truism. Against this background, considering the increasingly competitive environment, the concept of performance acquires new and multifaceted characteristics. Moreover, because of the converging challenges that may result in disruptions or even shocks, resilience has become paramount. Within this framework, performance psychology emphasizes the development, mainly through effort and perseverance, of an evolutionary mindset that, in turn, enables individuals, organizations and states to embrace challenges, view setbacks as learning opportunities, adapt in the face of uncertainty, and prosper under such circumstances, which is the essence of strategic resilience. In short, performance psychology provides the tools that support strategic resilience.

In this context, taking into account the fact that there is no standardized definition of the key concepts mentioned in the present paper, namely performance psychology and strategic resilience, we find it useful to provide such definitions as they are presented in the studied literature. Having considered the definitions, the paper is intended to demonstrate the complementarity of psychological performance and strategic resilience, to present some of the theoretical foundations related to performance and resilience as well as the main evidence-based optimization techniques, and some of the identified applications in strategic contexts – military, emergency situations and crisis management, intelligence, space programs. These aspects are expected to test not only the mentioned techniques transformative potential especially in volatile, uncertain, complex and ambiguous (VUCA) contexts, where both sustained focus and flexibility are paramount, but also the theoretical saturation, namely the iterative process of collecting and analysing data in the field. To meet these objectives, qualitative research methods are employed, particularly grounded theory, namely an inductive approach meant to allow for the formulation of a new theory, based on the observed patterns, as well as of further research questions.

TERMINOLOGY

Performance has obviously become the focus in the present highly-competitive environment, broadly denoting how successfully a certain task is achieved. Thus, the concept of **human performance optimization** (HPO) has been developed. It is generally defined as *"the process of applying existing and emerging science and technology to individuals allowing them to reach their biological potential"* (MCDC Project, 2021, p. 10), entailing physical, cognitive and psychological aspects. Moreover, two functional aspects of performance are also suggested, as follows: *"1. Performance as a means to an end – that is, to achieve a particular, measurable result. 2. Performance as an end in itself – that is, to do the work or activity for its own sake"* (Raab et al., 2016, p. 13).

In this context, **performance psychology**, as the name suggests, focuses on the psychological perspective of performance, comprising, according to Nitsch and Hackfort, the psychological fundamentals of performance-oriented activities in various action domains, the psychological transfer effects of performance-oriented activities, in particular with regard to personality development, self-esteem, time management, stress control, communication skills, and the optimization of the capability to achieve demanding mental tasks (Ib., p. 12). Division 47 of the American Psychological Association (APA) provides the following definition: "Performance psychology is the study and application of psychological principles of human performance to help people consistently perform in the upper range of their capabilities and more thoroughly enjoy the performance process" (APA, 2019). Performance psychology is thus recognized for its broad appeal, involving domains where the human resource has to meet complex and intense demands, therefore resilience becomes a necessity to be defined.

Resilience as a domain of study was first broadly defined in the 1970s as the capacity to maintain health, or to reach adaptive outcomes, even in the presence of adversity (Garmezy, 1974, pp. 74-98). In line with the initial conceptualization, APA defines **(psychological) resilience** as *"the process and outcome of successfully adapting to difficult or challenging life experiences, especially through mental, emotional, and behavioral flexibility and adjustment to external and internal demands. A number of factors contribute to how well people adapt to adversities, predominant among them (a) the ways in which individuals view and engage with the world, (b) the availability and quality of social resources, and (c) specific coping strategies"* (APA, Glossary, https://www.apa.org/topics/resilience). It naturally

follows that resilience depends on individual characteristics as well as on the environment and the resources.

Considering that it somehow measures the way people adapt to adversities and combining it with the increasingly challenging environment, the resilience-related research has become the focus of business and international organisations as well. Thus, in 2020, especially in the context of the COVID-19 pandemic, the European Commission (EC) established the *Recovery and Resilience Task Force (RECOVER)*. It was operational until 1 February 2025 when its responsibilities were taken over by the *Reform and Investment Task Force* (EC, https://commission.europa.eu/about/departments-and-executive-agencies/recovery-and-resilience-task-force_en). In this context, the EU Strategic Foresight Report (2020) places resilience, defined as *"the* ability not only to withstand and cope with challenges but also to undergo transitions, in a sustainable, fair, and democratic manner" (JRC, Resilience, 2020), as a new compass for EU policies. Thus, "b*uilding a more resilient society calls for strengthening the mechanisms of shock absorption and enhancing the capacity for adaptation and transformation (…),* (entailing) *four interrelated dimensions: social and economic, geopolitical, green, and digital"* (Ib.), the path to the strategic dimension of resilience being open.

Strategic resilience is a concept originally used in business, considering the environment complexity, competitiveness and low level of predictability. In this context, **s**trategic resilience is defined as *"the capacity of a business to endure, adapt, and thrive amidst external pressures or changes without compromising its strategic objectives and integrity"* (Study Smarter, 2024). Thus, leadership agility, cultural flexibility, robust relationships and scenario planning are considered key components of strategic resilience (Ib.). With a focus on the organization, *"strategic resilience refers to the ability of an organization to effectively pursue opportunities in a competitive environment, while also being able to adjust to change without experiencing any financial or other crises"* (Välikangas, 2016). In a broader context, strategic resilience can be seen as *"the practice of thinking forward while leading through present turbulence – adapting to difficult operating circumstances while looking beyond current conditions to keep focused on the horizon"* (Coffaro, 2020) in an operating environment characterised by dynamic uncertainty.

Having clarified the working definitions, we will present some of the most influential theoretical foundations related to performance and resilience.

THEORETICAL FOUNDATIONS

The **Yerkes–Dodson law** of arousal and performance, formulated in 1908, postulates the optimal level of mental arousal, like excitement or alertness. In a very briefly presentation, the psychological principle tested by the law shows that low arousal leads to boredom and poor results, moderate arousal boosts focus and efficiency, while overarousal results in stress, mistakes and thus decreasing performance *(figure 1)*. However, the law should be considered only as a general guideline, especially taking into account the fact that the original experiment involved mice and punishment in the event of failing to accomplish the given task, on the one hand, and the individual differences and situational factors, on the other hand. Thus, modern research has shown that the curve can vary across individuals and contexts (Nickerson, 2025).

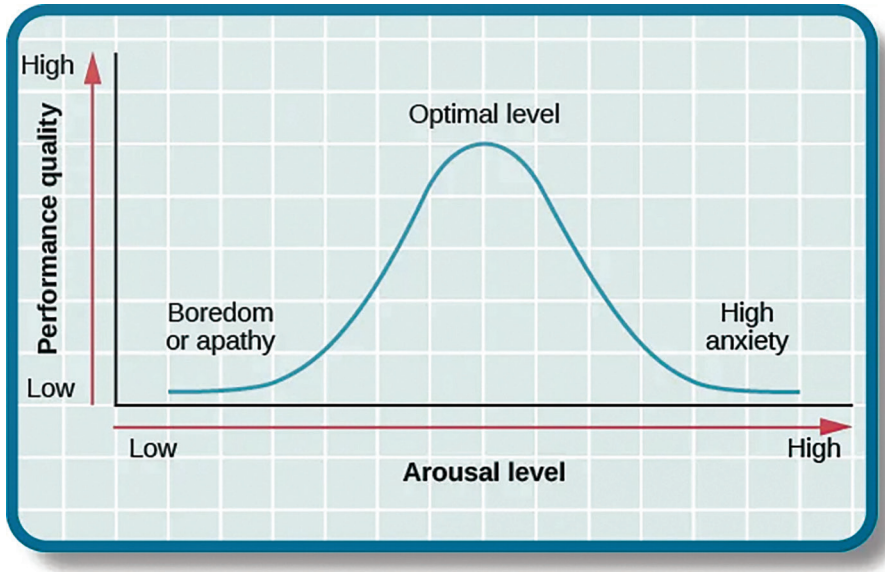

Figure 1: Yerkes-Dodson Law of Arousal and Performance (Nickerson, 2025)

Cognitive Load Theory, developed by educational psychologist John Sweller in the 1980s, has used elements of human cognition to generate instructional effects, in the sense of optimizing intellectual performance, in the context of a study on problem solving. Thus, *"cognitive load is generally considered a construct representing the load that performing a particular task imposes on the cognitive system. It can be conceptualized as a task-based dimension (i.e., mental load) and a learner-based dimension (i.e., mental effort), both of which affect performance. (…).*

Performance refers to the associated learner's performance" (Sweller et al., 1998, p. 266). In this context, schemas are considered to be examples of sophisticated rules. Automated schemas allow for both fluid performance on familiar tasks and levels of performance on unfamiliar aspects that otherwise might be impossible. In short, cognitive load theory assumes that all information that must be processed in working memory is part of an interactivity continuum. The low element interactivity is associated with low intrinsic cognitive load. In contrast, the high element interactivity materials require them to be processed simultaneously in working memory resulting in a high intrinsic cognitive load. Learning reduces that load by embedding interacting elements in schemas. (Ib., pp. 257, 258, 290).

Connecting the exposed theories related to learning and performance with the concept of resilience, which entails enhancing the capacity for adaptation and transformation, we consider it important to present a theory, formulated by Hans Selye in the 1950s, describing the body response to stressors, be they negative or positive, namely the **General Adaptation Syndrome** (GAS). The theory states that the body response to stressors undergoes three stages: alarm reaction (fight-or-flight), resistance (the body recovers), and exhaustion (fatigue and burnout) (Seyle, 1977, p. 85). In time, and in sync with the social and technological progress, associated concepts have been developed, such as the *"pathology of progress"*, especially in connection to the increasing levels of mental stress, fatigue, and traumatic neurosis among industrial workers and soldiers. In addition, the concept of *"diseases of adaption"* was introduced, mainly related to the role of hormones in mediating resistance to stress, which has been promoted as a new language of disease (Rosenberg, 1998, pp. 714-730).

RESILIENCE FRAMEWORKS

In line with resilience conceptualization, many frameworks have been developed, intended not only to provide a systematic and strategic structure to the concept but also to identify and build the capacities needed to respond to adversity and even to prevent or adapt to it. Among them, we will briefly present the following: BCI, ICOR, Fraunhofer EMI, as well as Merkt & Ziehr Strategic Resilience Model.

BCI Framework has been developed by a group of experts belonging to the Business Continuity Institute (BCI), offering a robust structure for organizations to enhance resilience in a systematic manner (BCI, 1.0). In this context, a set of eight core principles for all resilience development and management activities within an organization have been established as follows: • Resilience is led from the top;

• It requires clear direction on purpose, objectives and required outcomes; • It requires a comprehensive understanding of the organization's current state; • A risk-based approach is necessary; • Resilience is coherent and collaborative; • It incorporates a defined set of strategies and related operational solutions; • Being able to adapt is a characteristic of resilience; • It is always cyclical (Ib.) *(figure 2).*

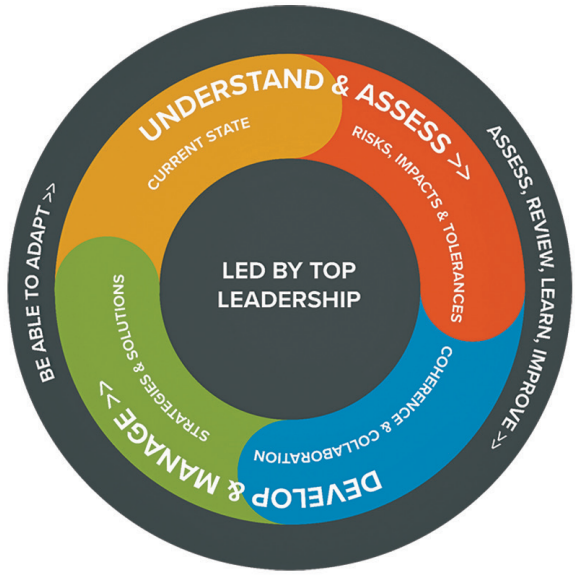

Figure 2: The Resilience Framework Cycle (Ib.)

ICOR's Organizational Resilience Framework has been developed by the International Consortium for Organizational Resilience (ICOR). In this particular framework, twelve management disciplines that effectively manage risk have been identified (ICOR) *(figure 3).* Moreover, accepting the fact that there are few situations in which a single strategy or solution can make an organization resilient, some other enhancement approaches are presented, comprising managing risk in a coordinated manner, building a healthy organizational culture, and increasing the capabilities to adapt and manage change (Ib.).

Figure 3: ICOR Management Disciplines (Ib.)

Fraunhofer EMI resilience cycle gravitates to the *strategic planning of resilience*, especially in the case of technical systems, a process subdivided in five phases – Prepare, Prevent, Protect, Respond, Recover, which constitute the cycle (Fraunhofer EMI).

Merkt & Ziehr Strategic Resilience Model connects strategic resilience to human performance in the context of science and education (Ziehr, Merkt, 2024) *(figure 4).*

The mentioned model connects the psychological, physical and cognitive aspects, showing that the capability to act depends on the interaction between the three, especially at the individual level, as well as on the context. It is thus shown that, in special operational situations, such as the military, common resilience models may reach their limits to include the strategic resilience approach that focuses on overcoming crisis situations, preventing them, and making dynamic decisions, allowing for developing a strategy to improve effectiveness in special operational situations. Such multidimensional consideration can help actors to improve their skills in terms of *human performance optimization* and *human performance strategic resilience*. (Ib.).

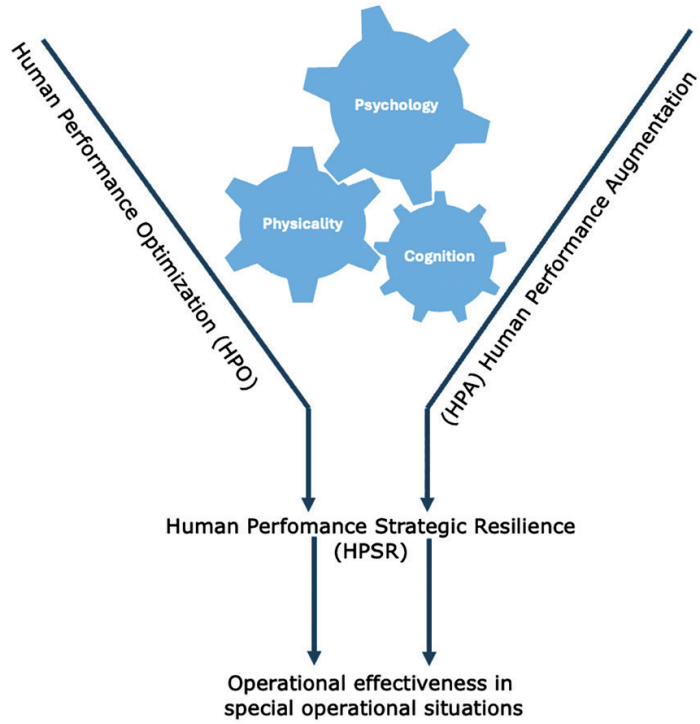

Figure 4: Model of strategic resilience in human performance (Ib.)

In this context, mention should be made that Human Performance Optimization (HPO), more often than not based on AI-driven cognitive training programs, comprises Human Performance Modification – HPM, Human Performance Augmentation – HPA; Human Performance Enhancement – HPE; and Human Performance Restoration – HPR. We only mention these aspects in the present paper, considering them as future research directions that exceed the set objectives. Consequently, focusing on the topic, we will retain only the performance psychology-related aspects and we will briefly present some enhancement techniques found in the studied literature.

ENHANCEMENT/OPTIMIZATION TECHNIQUES

The tasks associated with the military require achieving not only physical but also mental readiness. In this context, holistic approaches have been adopted in the military too. For instance, one of the US Army human resource priorities is to develop a more comprehensive understanding of the factors related to readiness, thus insights into optimizing troops' performance being provided. In this regard, some of the identified strategies associated with self-regulation and optimal performance

entail skills such as goal setting, imagery, attentional control and thought control, all of them being especially necessary for performance optimization and cognitive function in high-stress environments such as the military (Leone et al., 2025).

In this context, the Center for Army Lessons Learned released the US Army Holistic Health and Fitness (H2F) Handbook (Faulkenberry et al., 2023). It is presented as able to change the culture of health and fitness in the Army to help meet the demands of modern combat. *"H2F is an enterprise-wide readiness system that combines all aspects of physical and non-physical human performance optimization under a single governance structure to enable commanders to improve Soldier health and fitness. This system encompasses five domains: 1. Mental Readiness – The ability to meet the mental demands of combat or duty position; 2. Sleep Readiness – The ability to implement the requisite sleep principles and behaviors to support optimal brain function; 3. Nutritional Readiness – The ability to recognize, select, and consume the requisite food and drink to meet the physical and non-physical demands of any duty or combat; 4. Spiritual Readiness – The development of personal qualities needed to sustain a person in times of stress, hardship, and tragedy; 5. Physical Readiness – The ability to meet the physical demands of any duty or combat and accomplish the mission"* (Ib., p. 1).

In what follows we will provide a brief description of some of the identified techniques meant to enhance performance.

❖ *Goal setting* is a performance psychology technique designed to enhance achievement by proving a sense of direction and desired target outcome. All of us and especially the military need the ability to persevere and perform under both immediate danger and long-term stress, not only on the job but also at home. For instance, in the Naval Special Warfare Community, *"Warrior Toughness (WT) is considered to be a holistic human performance skillset that enhances the toughness of the Sailors with a focus on the pursuit of peak performance, which emphasizes the development of toughness in the mind, body, and soul. WT combines performance psychology skills with character development, and teaches the Warrior Mindset"* (Naval Education and Training Command, Glossary of Terms). In terms of goal setting, the same source mentions the fact that Outcome Goals (long term vision statements) should be aligned with Performance Goals (specific longer-term goals) and Process Goals (specific short-term goals), and Performance Goals should be SMART (Specific, Measurable, Attainable, Relevant, and Time-based) (Ib.).

❖ *Visualization/Imagery* is defined as not only a cognitive process fundamental to motor learning and performance but also a mental technique that can be refined

with practice and utilized in many ways to enhance performance (Cumming, Williams, 2012, p. 213). There are five main characteristics of the imagery process: modality, perspective, angle, agency, and deliberation (Ib., p. 214). It has been demonstrated that imagery shares neural and behavioural similarity to the genuine experience. Research has shown that the effects on performance enhancement can occur both immediately and over time, due to changes in neural plasticity, on condition areas of brain activation during imagery are as similar as possible to those active during execution of the desired outcome. That is the reason why different methods for enhancing imagery ability, related to cognitive neuroscience evidence, have been proposed, such as those based on the Physical, Environment, Task, Timing, Learning, Emotion, and Perspective (PETTLEP) model (Ib., pp. 219-220).

❖ *Mindfulness* is a performance psychology technique defined as present moment awareness, which may entail both the self and the situation. The technique can help prevent not only the state of being overwhelmed but also distractions, therefore resulting in increasing focus, especially in high-stress situations. In the introduction of the Naval War College cognitive fitness and mindful resilience initiative, it is specified that *"Mindfulness is often thought of as a way to promote emotional well-being and resilience and to reduce stress. (…), research has also indicated that it can strengthen areas of cognitive performance. (…) Findings indicate that mindfulness practice can improve working memory, sustained attention, cognitive flexibility, empathy, and decision making. (…) these outcomes point to a particular benefit for members of high-stress occupations such as the military and for leaders at all levels (…)"* (US Naval War College, 2025).

❖ *Biofeedback & Heart Rate Variability training* is an exercise related to mindfulness technique, designed to teach people to better observe physic sensations objectively. In the documented case of Sailors, the exercise, performed by systematically focusing on each part of the body and then noticing whatever sensations are there in a non-judgmental manner, will help train them to be prepared to perform in uncomfortable environments. *"The broader purpose is to give Sailors an opportunity to practice refocusing on the here and now when their minds wander"* (Naval Education and Training Command, Glossary of Terms).

❖ *Reframing* is a performance psychology technique that entails a process of reflection meant to help people develop resilience and adaptability. More precisely, it is related to the fear of making mistakes, especially considering the cultural perspective in which people are taught to aim for perfection, which can lead to anxiety about failure, creating a sense of pressure. However, by reframing errors,

people can find the purpose of mistakes and can focus on processes or actions that are within their control (Condor Performance, 2025).

❖ *Mental rehearsal* is a performance psychology technique that resembles a virtual reality practice session in the mind, thus helping to prepare for tasks that are stressful and/or high risk. The documented exercise for Sailors, performed as a group, consists of *"a written script that is read aloud, allowing them to mentally rehearse in a manner that is both vivid (using all senses) and controlled (only rehearsing desired outcomes). The same visualization process can also be used by Sailors individually in the moments leading up to the actual stressful and/or high-risk situation"* (Naval Education and Training Command, Glossary of Terms).

❖ *Building support systems* is another documented performance enhancement technique. Thus, it has been demonstrated that, in the case of athletes, psychosocial support, defined as encompassing both sporting figures (trainers, teammates etc.) and non-sporting individuals (family, friends etc.), is crucial for fostering resilience, protective resources, and coping mechanisms. The provided support may include emotional reinforcement, boosting self-esteem, adding information, as well as tangible assistance, studies having shown a positive correlation between psychosocial support and improved performance and better resilience (Lane, 2024).

APPLICATIONS IN STRATEGIC CONTEXTS

In the late 1980s, with the end of the Cold War, it was assumed that the global system ceased to be a bipolar one, which resulted in increasing volatility, uncertainty, complexity and ambiguity of general conditions and situations (Bennis, Nanus, 1985). Thus, based on the acronym for the mentioned characteristics, the concept of VUCA context is considered to be coined by the US Army War College, by introducing it in the curriculum in 1987 (US Army Heritage and Education Center, 2019). Moreover, in 1991, related to the US Army War College experience, strategic leadership was defined within a "*volatile, uncertain, complex and ambiguous global environment...*" (Barber, 1992, p. 8).

In general terms, the VUCA framework entails tools, processes and strategies related to change, challenges, risks, anticipation, preparation, prevention, protection, planning, decision-making, response, improvement, learning, adaptation, recovery, which are all elements of commonality for the presented resilience framework cycles, performance psychology enhancement techniques, and strategic management. Moreover, VUCA, to which terms like chaos, nonlinearity, paradox, delayed feedback and information flow have been suggested to add over time, serves as a roadmap

for different organizations to develop strategies for readiness, foresight, adaptation, proactive intervention and recovery in complex and extremely requiring situations.

In this context, we will provide some examples of the identified and already implemented programs meant to foster resilience in domains considered strategic, such as the military, emergency situations and crisis management, intelligence, and space programs.

Military

The US Army Master Resilience Trainer (MRT) course provides face-to-face resilience training, being one of the foundational pillars of the Comprehensive Soldier Fitness program. The curriculum includes three components: preparation, based on the Penn Resilience Program (PRP) curriculum as well as on other empirically validated interventions from positive psychology; sustainment, developed by researchers at the Walter Reed Army Institute of Research; and enhancement, developed by sports psychologists within the United States Military Academy at West Point, teaching personal and professional skills that maximize individual performance (Reivich et al., 2011, p. 25).

Basic Underwater Demolition/SEAL (BUD/S) training is a very demanding program that *"requires an iron will, exceptional determination, and resilience to succeed"* (as it) *"pushes candidates to their limits and beyond, testing physical endurance, mental resilience, and team spirit like no other military training in the world (…) Imagine being pushed to your absolute limit (...) then being asked to push even harder. That's what BUD/S Training feels like every single day".* (Navy Seal Military News, https://www.navyseal.com/bud-s/).

Expanded Operational Stress Control (E-OSC) is part of the Navy's Culture of Excellence, designed to enhance resilience, readiness, and stress navigation across the fleet. E-OSC employs evidence-based practices to build toughness and resilience through peer-to-peer support, self-care, and connectedness. The program began in 2008, evolving and incorporating advanced resilience concepts not only to address the changing needs of sailors and commands, but also adapted to caregivers in the Navy Medicine as well as to fleet and family support centres. Moreover, the program introduces the *Expanded Stress Continuum*, which recognizes stress as a tool for growth, with defined states ranging from Idle (lethargic or recovering), to Ready (manageable stress), Reacting (temporary stress), Injured (need for outside support) and Ill (requiring medical attention) (My Navy HR, https://www.mynavyhr.navy.mil/Support-Services/Culture-Resilience/Warrior-Toughness/E-OSC_SOM/).

NATO Resilience Reference Curriculum

Based on the idea expressed in NATO 2022 Strategic Concept, namely that *"We will pursue a more robust, integrated and coherent approach to building national and Alliance-wide resilience against military and non-military threats and challenges to our security, as a national responsibility and a collective commitment rooted in Article 3 of the North Atlantic Treaty"* (Para 26, p. 7), the Resilience Reference Curriculum was developed and released in January 2025, as a guiding framework for developing courses, study programs and trainings on the topic (NATO Resilience Reference Curriculum, 2025, p. 3). Considering resilience from the individual to the multinational and showing the interrelations between all the levels, the Curriculum addresses strategies in managing and sustaining individual resilience, covering tools for both the individual to manage and sustain own resilience and for leaders tasked with managing and sustaining the others resilience, mentioning the following as foundations: *"meaning and purpose, mindfulness, physical health, mental/ emotional health, a growth mindset, and social support"* (Ib., p. 86).

Emergency Situations and Crisis Management

Research in the area of special operation situations often focuses on the human performance cluster. An example is the Unit of *Applied Research 18_RECESS* (18_ Research and Education Center for Extraordinary Tactical Situations and Strategically Resilience) at the Department of Disaster Prevention and Crisis Management at Fresenius University of Applied Sciences in Idstein, which pursues the adaptation of existing resilience models to special operation situations in line with the definition of strategic resilience, focusing on training strategic resilience (Ziehr, Merkt, 2024). In this regard, there are several ongoing research projects, involving both civilians and military, mainly related to the possibility to train several domains of strategic resilience via problem-oriented intervention (POH), considering the three axes of strategic resilience, namely psychological, physiological and cognitive resilience, as well as the examination of robustness or performance in more detail, focusing on human performance, including HPM, HPA, HPE, HPD, HPR. All in all, different dimensions of resilience are considered, pertaining to natural sciences, humanities, social sciences, medicine, psychology and spirituality, to capture resilience multidimensionally and derive training options to increase the robustness of individuals in the context of human performance optimization in crises and disasters (Ib.).

Intelligence

The *Multimodal Objective Sensing to Assess Individuals with Context (MOSAIC)* program, running from July 2017 to December 2020, was aimed to advance the Intelligence Community's ability to evaluate an individual's psychological drivers, cognitive abilities, and mental resilience to predict their job performance. Considering the limitations of current assessment tools, MOSAIC is the first program that uses *"advances in mobile, wearable, and environmental sensors to develop continuous assessments of an individual's professional performance, and psychological and physiological well-being throughout their career. In phase 1 of the program, performers collected real-world, contextually rich data from sensors, mobile apps, and software from volunteer participants. In phase 2 of the program, performers made their rich data sets available to the research community"* (IARPA). One of the accomplishments of the program was that it established standardized formats and guidelines for curating complex multimodal data. Curated datasets are available to government partners as well as the broader research community via links to performers' data repositories accessible through MOSAIC's Open (Ib.).

Space programs

The *Stress Management and Resilience Training for Optimal Performance (SMART-OP)* project, running between 2008 and 2012, was based on cognitive-behavioural therapy (CBT), including education about stress, and interactive training exercises that taught users to monitor stress, regulate emotions and relax, think flexibly, be realistic, and take effective action to deal with stressors. Its content could be modified to target those working in challenging environments (e.g., astronauts, military, and flight controllers) and disseminated widely via computer, tablet, or smartphone. In fact, it is a *"computer-based, self-guided multimedia, interactive, evidence-based stress management and resilience training program"* (NASA), considering that stress plays a significant etiological role in the onset of many physical and psychiatric disorders (Ib.).

MINDFUL-ICE, a study conducted in a high-fidelity analogue environment, sometimes defined as the *"White Mars"*, namely the Concordia station, a research base located in Antarctica, investigated mindfulness as a predictor for lower stress over the course of long-term missions in isolated, confined, and extreme environments (Pagnini et al., 2024). In the same vein, *"A Quick Mindfulness Training for an Isolated and Confined Environment" (MINDFUL-ICE II)* is a program supported by the European Space Agency, the French Polar Institute Paul-Émile Victor, and the Programma Nazionale di Ricerche in Antartide to go deeper into the research

of practices such as diaphragmatic breathing, progressive muscle relaxation and mindfulness in order to integrate them into astronauts' training to help them manage the ongoing psychological demands of space missions. These methods are not only non-invasive but also easy to practice, making them ideal for space, where time and resources are limited (Pagnini, 2024).

THEORY DEVELOPMENT

Considering the grounded theory as the main research method employed in developing the paper, which entails inductive reasoning, we will combine the above-presented observations, the identified patterns and their coding with experiential information to formulate a theory that is intended to broaden the framework of performance psychology and strategic resilience complementarity. In this way, a hypothesis and new research questions will be generated, which we expect to be topics addressed in further research endeavours. Mention should be made, in this context, that, taking into account the limitations stemmed from the impossibility to observe every possible instance, the developed theory is a probable but not a certain one.

All these considered, resilience frameworks, be they related to individuals, as well as national and multinational business, organisations or even states, have certain aspects in common as follows: awareness, assessment, building capacity, adaptability, agility, integrated approach, which indicates the multidimensional trait of resilience. By adding the ability to endure, adapt and thrive in changing and requiring environments, keeping the focus and meeting the set objectives, to the mentioned characteristics, the strategic dimension of resilience is outlined. Moreover, the complementarity of strategic resilience and performance psychology as well as the interdependence between the individual, the environment and available resources are emphasized.

Under these circumstances, based on the patterns identified in the presented performance and resilience-related models, developed, experimented, budgeted and tested, involving not only subject matter experts but also practitioners, we advance the hypothesis that these issues are not completely new, even if the terminology may be different. It is somehow normal, considering that, since ancient times, human beings have been confronted with struggles, changes and choices. Yet, the human race has managed to survive in one way or another. Nevertheless, it may mean gain or loss for some social organisations and individuals. Therefore, the question arises whether a win-win solution could be possible for everyone in the long run, which has been coined utopia so far. Utopia is defined as an ideal

society based on unrealistic perfection. Concurrently, the term eutopia has been also introduced, meaning a desirable and achievable society that focuses on continuous improvement rather than perfection, which seems to be a more realistic perspective, fostering a sense of attainable progress and promoting resilience.

In this context, the above-presented models of resilience revolve around the concept of cyclicity, emphasising preparation, prevention, protection, response and recovering as main stages. In addition, and in connection to performance psychology, Merkt & Ziehr model considers HPM, HPA, HPE and HPR as subunits of HPO, taking into account the rapid and even astonishing technological advances. Moreover, the mentioned theoretical foundations emphasize the concepts of optimal level of arousal, mental load and effort, adaptation syndrome with the associated pathology, as well as that of interactivity continuum. Furthermore, most of the presented performance enhancement techniques and applications are holistic, entailing mind, body and soul, which aligns with the principles of resilient thought, iterative and sustainable in nature, encouraging integration of diverse systems and approaches.

By and large, the survival of the human species over thousands and thousands of years may indicate an underlying universal guiding principle that is likely to be connected to the knowledge and development of the self, which maintains the existence and evolution of the body, shaping the energy of life in matter and covering the entire spectrum of frequencies. In this context, it can be said that the appropriate response to challenges should be sought within. Thus, one of the steps to follow in building resilience is for the subject to know the basis of own being, that is to recognize all innate capacities, those acquired through experience, as well as dormant ones that are waiting to be unveiled and used through one's own effort. Mention should be made, in this regard, that there are psychological tests that can be applied for self-knowledge.

However, from a physiological and psychological perspective, the living cell is made to function healthily in a certain frequency range. Under these circumstances, the question then arises related to the level of challenge in the environment that can be processed and integrated, which is, in fact, resilience. If, in a too challenging environment, only rational consciousness can develop, which is intelligence and logic, not emotion, a community cannot thrive. Nevertheless, resilience and performance models highlight the concept of community, involving people who see solutions in a much deeper way, who are loyal, and thus inspiring and supportive. Therefore, an organization, no matter its size and purpose, succeeds through its valuable people who naturally have the mentality of winners through themselves

and thus attract the gain for the organization. If the members of the organization do not progress through their decisions but decline, then, in the long run, the organization will only win through deception. There may be organizations that can choose to take deception to the level of art and continue to win by manipulating and distorting the reality.

Therefore, one might ask what is the level of *"healthy"* resilience in an increasingly *"unhealthy"* environment, considering, in terms of performance, that the desire to be seen as a professional, to accomplish as many projects as possible for the organization, to be appreciated for the achievements can be seen as human nature, especially in the current social and cultural context, focused on competitiveness. Under such circumstances, the interconnection between biological, social and psychological factors in human life, which substantiates the holistic approach to resilience, is once more emphasized.

INSTEAD OF CONCLUSION

All the presented aspects considered, there is still a lingering question: Have we been designed as human beings or as human doers, achievers or fixers?

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