

Residue

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Summary

You are not broken. You are not a victim. You are not a survivor. You have chosen the hard path—a path full of extreme experiences, both good and bad, which leave memories. These memories, in turn, leave a residue within you, which if processed can serve as the fuel that moves us to wisdom and joy. If unprocessed, however, it will begin to build up, to harden, until you can no longer move or breathe, until all you know is pain and sorrow.

This paper is based on the rejection of the idea that Operators, in Medicine, Fire, Law Enforcement and Military, must sacrifice their lives and souls, in exchange for living a life of service. That together, as a community of Operators and academics, we can find ways to help them process their extreme experiences into the fuel that grows their wisdom, not the poison that fuels their sorrow

This project is about finding better ways to process that residue.

In the fall of 2018, I had a serendipitous interaction with the actor Tom Hardy, who shared his approach to residue with me. The idea is that after deeply inhabiting a character, there will come a time when an actor must move on and embrace the next character they will play. In some cases, an acting role may leave a residue that must be processed in order to add to, and not distract from, the next role.

With help from actors Tom Hardy, Scott Glenn and Denis Leary, along with hundreds of Operators, this paper explores the idea that we can help Operators process the residue of their experiences in a way that moves them toward their potential, rather than toward their sorrow.

This strength-based approach is based on the premise that Operators are neither victims nor survivors, but people who have lived extraordinary lives who require unique skills to process extraordinary memories.



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M.A., a member of the U.S. Army Special Operations Command, invited me to a Wounded Warriors Benefit in Alexandria, VA. Together with R.J., a member of Air Force Special Operations Command who also consults for the film industry, they invited the actor Tom Hardy to attend as part of his longstanding efforts to support service men and women.

Talking with Tom, I discovered he had an ongoing and sophisticated interest in human factor research—specifically the concept of *residue*:

As an actor I immerse myself in a character. When the movie production is over and it is time for me to immerse myself in a new character, there is still remnants or residue of the previous character within me. I need to undertake a process to remove, absorb or accept that residue in order to prepare for the next character I will embody.

Completely cleaning the sheet (of residue), in my experience, as I immerse and embed deeply, is impossible. As a result, it builds over time and I have adopted characteristics from characters into multi sophisticated personas.

Many professional teams talk about "putting your game face on" (or "getting in the zone" or "flipping the switch"), but few of those teams talk about "taking your game face off."

This concept mattered to me because, as a former wilderness guide and medic, I know what it is to not be fast enough, or smart enough, or good enough to prevent someone from dying.

Each time I lost a kid as an EMT, or as a wilderness guide, it shattered me. Their images never really left me. It wasn't until Tom said "residue" that I had a name for these ghosts that walk with me; the unprocessed residue from past losses and disappointments.

In my case, I have been lucky that I belonged to a culture that advocated for constant selfimprovement, while also having access to great counselors, chaplains, psychologists, and grey beards to help me make meaning of all of that residue—to enhance the wisdom that might be used in service to the people I encounter.

It just so happened, that in same moment I was talking with Tom, I was literally surrounded by wounded warriors and knew for a fact that some of them were sinking under the collective weight of their past experience. I know that many of my friends and research partners in the military, firefighting, law enforcement, and emergency medicine don't seem to know how to process or manage their residue.

I had the lingering notion that while there are no silver bullets, perhaps there are techniques or practices to help Operators better process and manage their residue.



Residue—Something That Remains After The Completion Of A Process

Over the course of this research I have come to see "residue" as neither good, nor bad, only the substance that experience and memories leave behind. We often think about the bad days that mark our lived experiences, but we should also consider those extraordinary day when we overcame a previously perceived limitation.

If processed well, these memories reveal the character and personality that create meaningful stories. If left unprocessed, memories can become a tar that clogs your heart and soul.

Denis Leary recognizes this duality: "It's the residue of my own emotional experiences that I use to inform any role I play. This includes painful, traumatic experiences as well as happy or positive ones."

When Chief David Morkal of the FDNY first heard the word *residue*, he immediately thought of the time his oldest child said he wanted to be an EMT. "I said that it was a great job and it was great to help people, but that he should be aware that it will stain your soul. I said that there are ways to deal with that, and you can still have a great career, but you will never forget the images and experiences that you will encounter."

It is worth noting, as Scott Glenn explained, that not all experiences leave a residue; some just leave clutter:

Also, a lot of the stuff I've been cultivating and hanging onto is either negative (playing someone who's fucked up for example) or is just clutter—when what I want is an empty canvas for whatever part comes next. Not all people who experienced trauma, are traumatized. Labeling them as a victim or a survivor can be counterproductive. Before we get out the wire brush, let's first just unclutter.

Audience

The primary audience of this White Paper is the Mission Critical Team Collaborative Inquiry Community. This currently includes Operators, Actors, Psychologists, and Researchers. As a result, I must balance readability with the precision required for research validity. For some academic readers it will not be precise enough; for some Operators it will be overly verbose. When in doubt, I privileged application over theory.



Section 1: The Profile of an Operator

Tribe and Team

There is an expression in pediatrics that children who come in with injuries, also come in with parents; they are a package. In the same way, Operators come in teams and tribes. The word *tribe* is used by anthropologists to describe a group of distinct people, who are largely self-sufficient, and not integrated into the national society (Fried, 1975).

Most Operators exist within tribal frameworks and often see the world through that lens (Fried, 1975; Junger, 2016; Lowe, Brimah, Marsh, Minter, & Muyangwa, 1997). As a result, the loss of their tribe at the end of a career can often be devastating. Coleman Ruiz, in talking about his transition, points out that our community is the place – the environment – where we know how to make a meaningful contribution. "With respect to tribal and group affiliation, it's the fundamental role of any community to shield its members from chaos...and reassure them of their importance."

Ruiz goes on to say that in transition from the service, we have lost a tribe, or at least a part of our community. We are trying to learn the new rules of a new environment.

Undomesticated

One of the many reasons that people join "the teams" is because it is where they feel at home. After many years of observing teams, I came to an epiphany. Many of the Operators I know emit some degree of the dangerous, the unpredictable—but I had always otherwise thought of them as normal people who do extraordinary things. Then I began to realize, that in some cases, my underlying assumptions were false. That some teams were not attracting and selecting aggressive dogs, they were attracting and selecting wolves who can be taught table manners. They are not preparing a normal dog to be dangerous; they are asking a wolf to develop discipline over their desire to hunt.

In some cases, this means that Operators are not domestic animals returning to a domestic life, but wild animals trying to pretend that they were once domesticated. As Shaun Huls notes, so many little things in the ordinary world require adaptation, from monitoring your "Kill Face," to making small talk, to no rank or uniform, to figuring out what to wear every morning. They joined the teams because in some ways they did not quite fit or belong in the ordinary world, and now they are transitioning into, and adapting into, a world which they are told is normal, but may have never been their normal.

Service

While they may be wolves, each of them chose to channel their energies and passion into service. The ancient Greek definition of *Hero* means "To protect and to serve." (Vogler, 2007, p. 29), and includes the idea that one cannot truly serve without sacrifice. M.A. notes that core to the identity of the Hero is both sacrifice and the ongoing burden and cost of that sacrifice. "To lay one's life down for a stranger, or brother in arms, is well beyond motivation. It's deeply rooted into their programming. You can't act your way through that in a combat environment. Maybe once . . . but not a career's worth."



Reverend Sue Phillips reminds us that Operators often see their work as a Vocation, from the Latin *vocātiō*, which literally translates to 'a call, summons,' an occupation to which a person is specially drawn (Simpson & Weiner, 1989). This concept of a "Call to Action" is also foundational to the concept of the "Hero's Journey" (Campbell, 2008), the shared human mythology of our life's journey toward "identity and wholeness. In the process of becoming complete, integrated human beings, we are all Heroes facing internal Guardians, monsters and helpers" (Vogler, 2007, pp. 29-30). When Operators leave "the teams," they also move away from being in service to something greater than themselves.

Suffering as Privilege

N.D., a tactical military emergency physician, after reading the first residue paper, introduced me to the idea of "Suffering as a Privilege":

Suffering is at the core of enlightenment and salvation in all major religious traditions. It is the mechanism by which we grow and evolve, if we are thoughtful in how we suffer and the meaning therein. By extension, those who do not suffer are (potentially) not so enlightened or evolved. I think that this is a relevant and important theme to consider in the long-term health and wellbeing of a community that suffers mentally, physically, emotionally, and spiritually.

He goes on to quote from *Portrait of a Lady* (James, 1881). Isabel, a naive, young, American debutante is seeking insight from her cousin, Ralph, a young invalid who is dying from a terminal illness. Ralph just shakes his head sadly and says,

I might show it to you, but you'd never see it. The privilege isn't given to every one; it's not enviable. It has never been seen by a young, happy, innocent person like you. You must have suffered first, have suffered greatly, have gained some miserable knowledge. In that way your eyes are opened to it.

Suffering as privilege also speaks to the "privileged knowledge," or what is also called "tacit knowledge"—the knowledge of riding a bike, or putting on frozen boots on feet with blood blisters—things you know but can never really explain.

A firefighter can explain what it means to be "hot," and a fighter can explain how long 60 seconds is, but you will not understand unless you have lived it. Tom Hardy amplifies this in noting that, "real recognizes real."

People cannot speak authentically to events they have not lived.

It is why communities of similarity, like recovery groups, can speak with shared familiarity. It is this privileged shared suffering of medical residency, hell week, selection and assessment, combat, etc. which Colonel Dr. Art Finch, a psychologist for U.S. Army Special Operations Command, believes is the source of an Operator's credibility and a catalyst for the deep cohesion among teams.



The Complexity of Pain

Years of suffering and sacrifice come with a cost, and the last 20 years of war have shown that we are really good at breaking people, with many Operators walking around with significant chronic injuries. As a result, Shaun Huls notes that many enter into a cycle of pain reduction because everyone wants to feel better.

The problem, as Dr. Art Finch points out, is that chronic pain makes any other physical, psychological, or spiritual pathology worse, often leading to decreased quality of life, increased anxiety, and increased depression. Pain disrupts sleep, which also increases inflammation and causes/exacerbates multiple psychological and cognitive issues, and dramatically lengthens recovery times for other physical injuries and illnesses. Individuals suffering from chronic pain seek both professional treatment as well as self-medication, all of which may reduce pain, but often at the cost of equally or even more damaging side effects, including addiction.

Both M.A. and Tom Hardy reference that the relationship between addiction, passion, perseverance, and mental and physical endurance is real. J.R. commented that "One of our Operators is challenged by a severe addiction. We didn't cause it, but we sure as hell pushed him beyond his capacity regularly and without relief."

M.A. notes that in one instance, a Green Beret went from Tactical God to Retired Army Master Sergeant practically overnight. That identity shift dramatically affected his feeling of value and hence the void was filled with alcohol. M.A. comments that he promised himself that "no matter how long this war lasts or how many brothers in arms fall... that we would not be numb to the pain." But how? "I hit 20 years in a couple weeks... 17 of those in combat. Not a sympathy card, but if I am not unpacking the good and the bad that built up over the years...who is?"

Flow States

Operators spend years developing their ability to seamlessly enter and exit immersion events, often in a "flow state," a period of effortless calm and focus where solutions seem to emerge as fast as the problem sets (Csikszentmihalyi, 1990).

Coleman Ruiz, a former Navy SEAL, points at the research that shows that teams that require high creativity must operate within disciplined boundaries and constraints (Catmull & Wallace, 2014). He emphasizes that people in transition lose those boundaries and constraints and are in some ways inhibited from reaching creative flow experiences. Shaun Huls believes that one of the reasons that many Operators gravitate toward CrossFit is because a flow state often emerges during the intensity of the exercise. E.K. offers that "there is an aspect of competition, a Spartan quality and a regimen or routine (already prepared) to CrossFit as well."

At the same time, Reverend Sue Phillips points out that Spiritual practices are unquestionably designed to increase the likelihood of a transcendent, yet fully conscious presence, but don't inherently require physical suffering.



Denis Leary, in talking about how actors enter flow states:

... where you are so in the moment that your actions and responses are so instinctively immediate that they belong purely to the character, to the point where you can improvise dialogue, action and emotion as the character. The death of a loved one, or the pure joy of a past moment in time, is often the well you reach into while performing a part. The goal is to get deep enough into the role that your own experience and the character's experience become one and the same. After a while—you don't know if you're playing the part—or the part is playing you. Which is a good thing. It means you have essentially made yourself disappear.

Section 2: The Cycle of Transition

Rite of Passage

One of the main challenges Operators face is that they tend to view their final transition out of their profession as their first big transition—but it isn't. Rob Lively, former senior NCO with Joint Special Operations Command, describes that he was in constant transition throughout his career: "Transition happens always. Small and large. I transitioned from eliminating threats, to medical treatment for a child, all in seconds. I transitioned from a violent deployment to a kind and caring father of two daughters; all within 24 hours." As Coleman Ruiz explains, "Transition has many lives. Everyone will experience it differently. However, it seems fundamental to me that we must first work to align our goals and values with society and within a new community. I learned to be patient in learning the new rules of a new game. No one can negotiate this process alone as transition is as much about your context as it is about you personally."

Scott Glenn, in talking about transitioning between roles:

For me it all boils down to finding the bare bones of the character—this is about reentry, coming back to neutral, and understanding that the mission of your life has changed. And also, in most cases, the next mission (where you are headed next) is waiting to be found or will find you. The more you've enjoyed the experience, the more you'll miss it—the discipline and the joy and the excitement. But it's done and it's not coming back.

A number of researchers have identified common themes, or archetypes (Jung, 2014), that all humans experience as they transition from one version of themselves to another. For our purposes, we are going to focus on, "Separation," "Liminality," and the "Return" (Bell, 1997; Turner, 1995; Van Gennep, 2011).

Separation

The first stage of a Rite of Passage where an individual withdraws from their current status and community with the hope and intention of being incorporated into a new community with a new status (Bell, 1997; Turner, 1995; Van Gennep, 2011).



Dr. Al'ai "LA" Alvarez, who helps run the Residency Program within Emergency Medicine at Stanford University's School of Medicine, believes that the sudden loss of belonging can often contribute to burnout. Saying goodbye to your team and being left to fend for yourself, to assimilate back to civilization, creates a lot of uncertainty/questions/internal struggle that if not normalized one is left feeling isolated. When Operators leave a team, they are stepping off a machine moving at velocity. It often happens abruptly, leaving the Operator feeling like the sailor on the beach watching their ship sail away from them to disappear over the horizon.

Liminality

From the Latin word *līmen*, meaning "a threshold," liminality is an anthropological term describing the transition between two realities where space and time take on different properties. During this transition, an individual's past identity needs to dissolve to some extent, allowing for new perspectives because the normal limits to thought, self-understanding, and behavior are relaxed (Turner, 1995; Van Gennep, 2011).

The challenge is that these relaxed norms can also lead to disorientation, internal and external uncertainty, ambiguity, openness, and indeterminacy. Like an ocean surf zone, the individual either learns the rhythm of the waves, or gets pulled under. One danger when entering liminality is the threat of becoming permanently liminal. As it relates to acting, Denis Leary will spend months, or in the case of a television series multiple years, living so deeply inside of someone else's skin—the "real" you can get lost.

Coleman Ruiz also commented on the trap of remaining liminal: "The failure to cross the Return Threshold can become increasingly problematic, and sometimes fatal." Scott Glenn notes, this is also true in acting, "Because we shoot movies out of sequence, as opposed to chronological order, you need to be in the essential space: psychologically, physically, maintaining the operating philosophy for the whole shoot. There are really no days off when you're working on accessing the inner life and/or the skills (fencing, flyfishing, painting, riding a bike) all the time. In that way, it is more like a deployment than a single mission."

What happens when we are left as two people trapped in one world? One person is the veteran not yet fully returned, and the other person is the veteran in a new and "dangerous realm where the rules and limits are not known." In describing the tension between the Operator self and the civilian self, Tom Hardy warns that, unresolved, it can create a "split" where the Operator "has to save a secret space for themselves as they function, albeit seemingly wholly, in another space, reality, and truth."

Psychologists from McMaster University, in studying actors, found that acting, "as neurocognitive phenomenon, is a suppression of self-processing (S. Brown, Cockett, & Yuan, 2019)." In other words, as you act the role of another, you stop processing your own experiences and take on a "double consciousness (S. Brown et al., 2019)."

As the Operator returns home to reengage and reconnect with civilian life, they are constantly reminded that even those close to them remain unaware of the terrors and the horrors of the immersion event. Having not seen what the Operator has seen, they remain unaware that safety is not real, only an illusion, that can be ripped from them.



Chief David Morkal notes that, unlike deployments, the transition between work and life can be tricky, as those small daily transitions can go unnoticed, but over time build up like "a death by a thousand cuts." He also points out that some important transitions are often hard to see, as he describes a trip he took to Disney World in the months after 9/11:

As the father of two young children, my wife and I figured that it would be a good idea to take advantage of the discounts that were being offered. As soon as I arrived, however, I immediately experienced trouble being away from my traumatized community. A lot of civilians had already started moving on and certainly my kids were focused on fun and Disney World was complete fantasy. I was miserable. The last place I wanted to be was away from the firehouse. And I was so disconnected from my family that my wife, a social worker, looked me in the eyes one day and said, "you need to get help." She was right.

The Return

We cannot stay deployed forever. At some point we must come home. We must "return to the ordinary (Campbell, 2008; Campbell & Moyers, 2011; Vogler, 2007)," but it matters if that return was planned or unplanned. As Dr. Al'ai Alvarez notes, "sudden unanticipated returns due to battle injuries, emergencies at home, burnout, mental disorders, can sometimes lead to an even more dangerous outcome—depression, suicide, etc." In describing unplanned returns, Coleman Ruiz reflects that it strips us of our customary support, which then "makes us susceptible to floundering in a morass of apathy and anxiety." Even in cases where we choose to return, when we "voluntarily detach ourselves from our tribe, often for good and healthy reasons, it is still abrupt and we often beat ourselves up since we feel like it's quitting (one of the dirtiest words in our vocabulary)."

For some military teams, they have given some thought to "the Return," and they will have the team take a decompression stop before going home. The problem is that these stops are often not structured. As M.A. notes,

They do not address the campfire talk/banter that used to lend itself to storytelling. Sure, a bar top makes an excellent platform for a "no shit…there I was…" story but infusing alcohol into our already troubled consciousness is a whole issue in itself. In a way, we cut the experience engine from creating new residue, but the existing residue, in the absence of a way to make meaning of it, is beginning to harden. It is this hardening phase that is what we need to attack with ferocity. Once it hardens… we now have to chip away at the carbon.

Once the Operators do return home, it usually isn't to a vacuum. Dr. Art Finch reminds us that they are often returning to families who are receiving someone with an unstable schedule and who experience their own emotional rollercoasters of excitement, disappointment, abandonment, resentment, love, longing, and loneliness. In the Operator's absence, these families have evolved, and the "normal" that was left behind has been replaced with "a new normal." But even if the Operator is prepared to embrace the "new normal," Jelani Hale, a former Navy SEAL who volunteers with the Station Foundation helping transitioning veterans asks, "What is neutral for a SEAL or Green Beret? How do you transition from an intense experience back to everyday life?"



Coleman Ruiz goes on to say "How is it that a person can go from the euphoric feelings of contributing so much to society to feeling lost and of little value to society? How is it that one can go from daily optimal experiences to near depression? How can someone return to a place they didn't really come from?

As M.A. notes, these necessary changes can result in Operators feeling more miserable "in an office cubicle than in a dirt hut with explosions reigning over their head." How could I go from feeling near personal enlightenment to being frustrated, disoriented, and unable to recapture my power? How is this possible? I have lost the tribe that I knew, don't know how to find a new one, or don't know the rules of the new tribe when we find one."

Tom Hardy, in referencing the split, comments that upon returning home, many Operators are told to hang up their uniform, put that life behind them, grow up, and settle down. The real question is, How do we get them to integrate back into one whole complete person? How do we help people be patient as they search for a new tribe, while their relationship with their old tribe fundamentally changes?

Transition Duration

Dr. Art Finch, in referencing the research comparing WWII veterans with Vietnam veterans regarding rates of PTSD and combat stress, notes the time it took to return home. By the 1970s, Vietnam veterans were landing on U.S. soil hours after being in combat. Whereas, WWII veterans boarded ships that took 2- 4 weeks to return home, allowing soldiers the opportunity to share war stories, make meaning of their experiences collectively, while simultaneously preparing for homecoming by talking about what they most missed and hoped to do first (expectancy).

Physiologically, it can take up to 90 days to reset circadian rhythms and lower their psychological defenses allowing them to interact with their families on a more "normal" level.

T.J. Creamer, a NASA Astronaut and Flight Controller, believes it can take 4-6 weeks for an astronaut's brain to adapt to the international space station. Mountaineers, such as Dr. Rodrigo Jordan, believe it can take 30-60 days to acclimatize to high altitude mountaineering.

As actors, both Scott Glenn and Tom Hardy speak about days after shooting. Hardy describes the "Wall of silence, this is the numbing phase"; while Glenn explains, "When it is over and you are wrapped, what I do is give myself the next four or five days to let it sink in, during which I'll replay everything that happened and formally say goodbye to it—whether I mean it or not, as my life is no longer ruled by a call sheet and that's a relief because I get to be lazy and have freedom."



Harry Moffit, a former member of the Australian SAS and active psychologist, described a conversation he had with Coleman Ruiz: "I asked him how his transition was, noting mine was imminent, and he said, "it is still going, 8 years later." "So, what you are saying is it takes up to 10 years?" I said. He said, "Maybe. I just know it takes a lot longer than 6 weeks, 6 months, or a year." This exchange made me reflect on how my mind shifted profoundly from that moment ... I cut myself some slack to be patient and accept that it was a much longer process than I (previously) thought."

Dr. Josh Gold, a neuroscientist at the University of Pennsylvania, points out that part of this equation is related to issues of neuroplasticity and an individual's ability to "update" the substrate of cognitive control to a new environment, mission, goal. The point is that we may have to recognize that humans require a certain amount of time to transition from one world to another and that this needs to be intentional.

Section 3: Changing the Conversation

Asset vs Deficit Frameworks

N.D. raises the question as to whether Operators' trauma is created by a specific event, or the interpretation of that event, as not all traumatic events in our lives lead to lasting trauma. Do we see the winning of an award, or the loss of a friend as experiences that might move us toward our potential (an asset), or an injury that will weigh us down (a deficit)?

Dr. Art Finch notes that these perspectives can be learned: "Individuals who survive traumatic childhoods can fall anywhere on the continuum from highly pathological to highly resilient, and likewise, individuals raised in nurturing and protective environments can demonstrate the same spectrum as adults, ranging from pathology to strength." In the field of human development there is a growing research to indicate that asset-based approaches to growth, while not perfect (Chamorro-Premuzic, 2016), are more successful than deficit, or pathological, approaches (Green & Haines, 2011, p. 7).

Asset Based	Deficit Based
Strengths Driven	Needs Driven
Opportunity focus	Problems focused
Internally focused	Externally focused
What is present that we can build upon?	What is missing that we must go find?
May lead to emergent and novel solutions	Often leads to downward spiral negativity

Chief David Morkal, in reading Sebastian Junger's book *Tribe*, references the idea that Iroquois warriors may have struggled less with alienation because warfare and society existed in congruence (Junger, 2016). The community would experience the event and move forward as one.



If, as a society, we welcome warriors back into the community, not as broken humans, but as contributing parts of the community, the easier the healing process. Junger, in reading Chief Morkal's comments, agreed, and went on to state that he is sure that's true of most small-scale societies. Dr. Finch points out that, in some organizations, those Operators who have legitimate injuries are required to become "patients" in order to obtain care. They are then given labels, treatments and medications, by external events/people over which they have little to no control.

Asset Based Frameworks

Developmental Assets and Protective Factors

Founded in 1958, Search Institute (<u>https://www.search-institute.org/</u>) was created to reframe the theory of child development from one of pathology, to a strengths-based approach.

Their research has identified 40 developmental assets that children need to succeed (Appendix B; (Plummer, 2011; Scales & Leffert, 1999). These developmental assets, or "Protective Factors," are conditions or attributes (skills, strengths, resources, supports or coping strategies) that help individuals deal more effectively with change and uncertainty (Rutter, 1985).

Referencing this framework, along with the Research Domain Criteria (RDoC) from the National Institutes of Health, our goal is to identify those protective factors that might help transitioning Operators more sustainably navigate liminality, or the uncertainties associated with their transition. Our premise is Operators possess the ability to process residue, or make meaning of their life experience, in a way that strengthens rather than wounds.

Deficit Based Frameworks

Labelling Theory

When Shaun Huls described his unease with how some Operators are being labelled as broken, he was referencing a psychological phenomenon first identified in the 1950s called Labeling Theory (Rosenthal, 2002). The theory describes how the self-identity, and behavior, of individuals may be influenced by the terms used to describe or classify them. For example, if you tell a child they are dumb, they are more likely to act dumb as a powerfully negative label can change a person's self-concept and social identity (Plummer, 2011). The problem is that no two people will ever have the exact same life experiences, neurological pathways, embedded experiences, etc., so it is non-sensical to try and label all trauma the same (Van der Kolk, 1994).

Coleman Ruiz, in speaking of his own experience, states that, "there is no way to really describe or label 22 years of an "all out" effort, but that it was OUR effort and we are the ones who will have to do the work."

Risk and Pathology

Most research on human development emerges from Psychology and the Social Sciences which is often grounded in a pathological approach, such as Psychopathology (the study of mental disorders).



This methodology is based on looking for what is wrong, what is in deficit, what is at risk, all from a place of trying to achieve certainty. What happens, however, when we are trying to understand how to sustainably navigate uncertainty itself? Dr. Josh Gold notes that "in the process of developing strategies to help individuals deal more effectively with change and uncertainty (we) need to take into account the fact that different individuals can have very different ways of even being able to recognize, monitor, or estimate the magnitude of change and/or uncertainty. What might seem like a fundamental change in the environment to one person might be seen as insignificant noise to another, and vice versa."

Dr. Al'ai Alvarez informs us that Emergency Medicine has a huge challenge with medical burnout, partly associated with issues of "uncertainty tolerance" (Grutters, van Asselt, Chalkidou, & Joore, 2015).

The idea is that in life and death situations, some medical professionals have the false expectation that they should be able to achieve certainty around solutions given the volume of scientific data, even when true certainty is not possible. This is one of the reasons that the word *Risk* is now being defined in some quarters as "the effect of uncertainty upon objectives" (Purdy, 2010), to require us to focus more on our objectives, rather than our potential losses. Where you look, is where you go.

Moral Injury

Dr. Art Finch notes that, for the past 5-10 years, uniformed chaplains have been working on the concept of "moral injury." Moral injury may occur when an Operator is forced to behave in ways that conflicts with deeply held moral beliefs (Litz et al., 2009). The research goes on to say that veterans can usually recover from horror, fear, and grief of war once they return to civilian life, so long as "what's right" has not also been violated" (Shay, 2010, p. 20). According to this research, Moral injuries require "moral repair" after the traumatic event (Litz et al., 2009).

This paper asks the question: Can provide Operators effective assets, or protective factors, prior to extreme events that can better help them process those experiences?

Section 4: Building the Skills and Environment to Process Residue

Internal Protective Factors

Question: What Are You Actively Doing To Influence Your Attitude?

W.D., a Senior Trainer in Naval Special Warfare, believes young Operators need to establish a "Positive Joy Vector" early in their career. The idea is that the energy an individual applies toward the dedication of their occupation must be equal to the energy they apply to personal happiness. There must be a deliberate effort toward the balance between Self, Team, and Family. Too much energy on any one of the three, the other two will always suffer, and all of them require intentional focus. Without all three, the Operator will be unable to achieve or sustain joy.



Denis Leary notes the balancing act is difficult, but in a job such as acting any and all of your emotions may come into play with every role.

So, it's easy for it to become a place where you can utilize grief, sorrow, anger etc. in such a way that they are tools which help you to achieve a goal. That's residue in action. Of course, the downside of that is making sure you keep those emotions close at hand so you can access them. So, a deeply felt personal moment of pain is literally bubbling somewhere on a low flame until you need it to reignite for a day or multiple days or even just a few hours. Denial is the one of the greatest weapons our brains employ. So, for me—in between jobs—I try hard to erase the residue of my most recent role while forcing the residue of my own emotions to linger somewhere inside.

There is an old saying that we cannot fix what we cannot talk about. In the case of residue, in order to talk about it, we first need to develop a shared authentic language to name and acknowledge both our challenges and opportunities, as we need to focus on both positivity and positive affirmation.

To that end it is important to note that in my research, I separate the terms *Robust, Resilient* and *Mindful* in the following way:

Robust is the ability to take a hit and not fall down; Resilient is taking the hit and getting right back up; and Mindfulness is about avoiding the hit altogether.

This difference matters because people who are more comfortable in a robust mindset, get hit more. M.A. talks about the fact for most Operators, "speed is security," and when transitioning back to civilian life, that lack of speed can become stagnation and "insecurity." In Japanese Zen Buddhism there is the term *Shoshin*, meaning 'beginner's mind': "In the beginner's mind there are many possibilities, in the expert's mind there are few" (Suzuki, 2010).

One of the challenges that Operators face is that they have been judged and rewarded in their career for their answers, not for their questions. The movement from the certainty of knowing an answer, to the ambiguity of the question can be destabilizing. In order to move out of liminality we need to weaponize our curiosity, carefully craft our question and listen deeply to the wisdom of others.

Question: Have You Had Your Chemistry And Sleep Tested?

Referencing his research on the physiology of transition and how our chemistry (hormones) change over time, Coleman Ruiz points out the fact that we cannot address any of the protective factors in isolation. Paddy Steinfort, Director, Performance and Leadership Development for the Philadelphia 76ers, has started to focus on the four major chemicals in the brain that influence our happiness—Dopamine, Endorphins, Oxytocin, and Serotonin.



When Operators spent time on the teams, they had a great deal of structure around accomplishing small and large goals. The constant anticipation of achieving those goals can release dopamine. Dopamine is an important neurotransmitter needed to predict rewards and learn how to acquire them. It is key to motivating goal-directed behavior, and its levels increase during anticipation.

The nature of the work, high arousal situations, can lead to increased Endorphins.

The team-based nature of the work, focused on a higher purpose, involves interactions with individuals we trust and value, which releases Oxytocin.

Lastly, one of the biggest predictors of optimism is psychological safety that comes with consistency which positively influences Serotonin—often recognized as the key factor in common cases of depression (relates to levels of optimism or depression) can actually be influenced heavily by what we eat (up to 70% of the levels are influenced by what happens in our gut).

When we have high levels of these chemicals, we are better positioned to resolve our challenges and problems. When these levels are low, we are often not happy, and when they are dangerously low, we do stupid things. As Dr. Josh Gold points out, we must integrate "many levels of information" including exercise, sleep, medications, hydration, nutrition, etc.

The Arousal/Regulatory Systems are the cognitive systems responsible for activating contextually appropriate parts of the brain, while also regulating energy balance and sleep systems. These systems are impacted by states of arousal, circadian rhythms, sleep and wakefulness (Insel et al., 2010).

Question: Are You Working On Improving Your Breathing?

Almost every contributor brought up the importance of breathing, both in life and in transition, because the body is often forgotten. Scott Glenn goes on to explain that "Lately I have been going to breathing, working on patterns and ways of breathing when my mind or feelings go to negative places. You always have your lungs with you, and different ways of breathing can always be improved. With breathing, unlike pushups, you can never hit a limit. You will never un-balance yourself with breath work." Coleman Ruiz believes that "We can't get psyched out about what may appear to be mystic approaches to getting back in touch with ourselves. Trauma (again, any kind) separates us from ourselves. It's of course a natural defense mechanism."

Things like Pranayama breathing only sound mystical when we don't know the science behind how the autonomic nervous system interacts with our physiology via the vagus nerve. Even a reasonable understanding of the physiology points to massive benefits via activating (or reactivating in some of our cases) the parasympathetic nervous system (Rama, Ballentine, & Hymes, 1998)."



Dr. Al'ai Alvarez notes that tactical breathing has been used to quickly de-stress and focus on combat and during high performance events. "Emotions have been documented to change breathing patterns and breathing patterns have been documented to change emotions. Controlled patterns of breathing thus can serve as powerful tools to impact and shift emotional states" (Philippot, Chapelle, & Blairy, 2002). Dr. Art Finch points out that breathing, and a focus on breathing, lies at the core of virtually every meditative state/mindfulness process known to man, from a yogi in a box, to a sniper in the zone, to hypnosis, to performance visualization.

Question: How Are You Actively Managing Your Sleep?

M.A. notes that after 8 months outpatient at National Intrepid Center of Excellence (NICoE): "I can testify to the fact that sleep is absolutely the center of gravity. Exercise powers deep and healthy sleep cycles. Hydration & Nutrition powers exercise." Dr. Finch goes on to say that humans typically experience 4 periods of Rapid Eye Movement (REM) sleep events each night which allows the brain to consolidate memories. It does this by connecting the chronology of new memories with old memories; essentially anchoring the day's most important events to prior events.

For survivors of traumatic events, such as military combat veterans, this means that relatively benign daily events that occur in an environment composed of military locations, other members of the military, military uniforms, sights, smells, etc., can be linked during REM to previously established memories, which are likely to be more significant memories with a higher emotional valence, such as traumatic/intense combat events. This process is often experienced as "nightmares," by such individuals upon awakening.

Question: Are You Regularly Pursuing Laughter, Joy And Play?

Every Operator I have ever met, whether a trauma nurse, a SEAL, or a firefighter, shares the habit of always looking to make someone laugh or to laugh themselves. Scott Glenn, citing Rinzai Zen, noted that "suicide is many things, but whatever else, is always a symptom of taking yourself too seriously" (Borup, 2008). Glenn went on to suggest that we "laugh as much as possible, even if it begins by being forced, and spend time with little kids and animals, neither of which have adult agendas and can help you lighten up on yourself and see the clutter of your life for what it is—just clutter. Even if it was once important."

It also turns out that adults need a certain amount of play: "Exercise or activity engaged in for enjoyment or recreation rather than for a serious or practical purpose; amusement, entertainment, diversion; the spontaneous or organized recreational activity of children" (S. L. Brown, 2009; Simpson & Weiner, 1989).

Question: How Are You Positively Influencing Your Inner Monologue?

It turns out that the voices in our head, sometimes deceptive, are often the loudest. To reprogram these inner monologues of past hurts, regrets, shame, guilt, and anger we need to practice positive self-talk. Research regarding Goal Setting, Arousal Regulation, Mental Imagery and Positive Self Talk have all been shown to be very effective in helping operators reset after a setback (Barwood, 2006). This is not a simple act, as research has also shown that we need to focus on at least three positive thoughts or memories in order to counteract one negative thought or memory (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001).



Question: Are You Mourning Your Losses?

If you work in the world of Mission Critical Teams, you are going to experience loss. It might be the loss of community, the loss of identity, the loss of status, or the loss of a friend. The question is, How can we prepare Operators to manage those losses? One solution might be to better understand the five stages of grief and loss: denial, anger, bargaining, depression and acceptance, first described by Kübler-Ross (Kübler-Ross, 1973). Scott Glen talks about letting go of an experience, "In most cases, the next mission (where you are headed next) is waiting to be found or will find you. The more you've enjoyed the experience, the more you'll miss it—the discipline and the joy and the excitement. But it's done and it's not coming back."

Chief David Morkal, in talking about the days after 9/11, getting promoted and dealing with endless funerals and loss: "I remember one day thinking, probably after therapy, that we had all been given a pebble in our shoe that day and it was up to each of us to decide what to do with that pebble. We each had a choice, we could stop walking, leave it there and feel the pain, take it out, clean it up, put it in our pocket, polish it, cherish it, regret it, anything but forget it. Our choice. I still have mine and it reminds me that I am who I am because of that pebble. It didn't cripple me, I hope it made me a better person in the memory of that "pebble" and the people it represents. Dr. Art Finch goes on to point out that mourning applies not only to the loss of a loved one, but also loss of the tribe, a shared experience, or the "old normal."

M.A. describing the death of his closest teammate and best friend: "Bluntly, he was shot in the head on a rooftop and I wasn't there to back him up. I pursued a different path and therefore was not at his side. Plain and simple. No warrior poetry or prose is going to undue that hard reality. Survivor's guilt is real and it, in my experience, is the densest form of residue. Ultimately, we must embrace our sorrow. We must weep hard. We must draw motivation. We must embrace the family. And most importantly, we mustn't let ourselves become numb to the idea or feeling of loss or the WHY behind their sacrifice."

Question: Are You Engaged In An Intentional Mindful Practice?

Dr. Art Finch notes that from a psychological intervention perspective, "mindfulness training" is the approach that seems to have the most helpful impact across breathing, arousal/regulatory systems, sleep, pain, and flow states. It comes in many forms and is a skill that must be learned, practiced, and continually utilized and improved. Dr. Al'ai Alvarez points out that meditation, in the form of the Mindfulness-based stress reduction (MBSR) has been shown to be successful in pain management (Kabat-Zinn, Lipworth, & Burney, 1985). It has the potential to make good people better and injured people healthier.

Dr. Elizabeth "Zab" Johnson, neuroscientist and Executive Director of the Wharton Neuroscience Initiative, points out mindfulness is not the silver bullet, as it still requires action and intent that can prevent our minds from wandering.



The act of mind wandering allows the brain's default mode network (DMN) (Spreng, 2012) to work on problems that we are struggling with that are important, but that are not necessarily active, externally directed tasks. A growing body of evidence suggests that the DMN is critical for internal focus, such as recollecting one's past, imagining one's personal future, social cognition, learning associations, and memory formation—likely aspects of problem-solving, as well. It is why those stories exist of people suddenly having an epiphany on a walk or in a shower.

Question: How Are You Becoming More Self-Aware?

All of these protective factors are predicated on the idea that the Operator must want to engage with them. They must want to learn, to grow, and to better understand themselves. Tom Hardy states: "Knowledge of self is key. In knowing self, in mastering self, it may be journeyed, and indeed is the hardest path, and battlefield, to take." Coleman Ruiz states, "Probably the largest lesson I've learned in working with residue is how open of mind I had to actually be. I've always fancied myself an open-minded person but doing this work over the last three years has forced me to a new level of awareness and recognition of how much I didn't know about any of these concepts. The first thing I learned was that it wasn't just me. I didn't have a "problem," and I wasn't broken." Dr. Josh Gold notes that self-awareness includes wanting to improve, but it also includes knowing specific weaknesses that need improvement.

How we can cope will depend on addressing those specific assumptions and skills. In *An Unspoken Voice*, Peter Levine says, "the people who are most resilient, and find the most peace in their lives, have learned to tolerate extreme sensations while gaining the capacity for reflective self-awareness" (Levine, 2010). The problem is that self-awareness requires work, and as Dr. Art Finch points out, that is not a question of cognitive horsepower, as much as the intellectual curiosity to continue to make meaning of your evolving lived experience.

That process, as Reverend Sue Phillips notes, cannot be made just once or in isolation, but requires ongoing encounters with one's own story as it connects to other people's story, ancestors, texts, and wisdom lessons.

Question: What Do People See When They Watch You?

To this point, M.A. notes that after 20 years in Military Special Operations, "I have experienced eight close friends/teammates Killed In Action (countless others injured), suicides, overdose, and military punishment for conduct. Unbecoming has infested the SOCOM culture." It was only after urging from his wife, and seeing others he trusted go through the program, that he enrolled in the NICoE to address his mental health. Part of the reason for doing so was to send a signal to his subordinates that they have a duty to look after themselves. "Ultimately you have to determine what it is that makes me hold others in high regard, and they to hold me in high regard."



Question: How Are You Actively Practicing Self-Compassion?

Dr. Al'ai Alvarez introduced me to Kristen Neff's research on self-compassion—which consists of three elements: self-kindness, common humanity, and mindfulness (Neff, 2011). Dr. Alvarez goes on to point out that the dual nature of sacrifice and always striving to be the best can be challenging because of the difference between self-compassion and narcissism. The former allows us to be self-forgiving and self-tolerant. It's also not self-pity, which is a form of narcissism (Jinpa, 2016). The author Thupten Jinpa argues that self-compassion is tough to train.

Researchers have discovered that achievement-dependent self-esteem makes us vulnerable to feelings of inadequacy and failure when things don't unfold as expected. Some researchers offer evidence that the pursuit of self-esteem may hinder learning, specifically learning from our mistakes. When our purpose in doing something is the validation we anticipate from positive results – running for the sake of winning and feeling like a winner, say, instead of running because it's good for us, it helps us manage our depression, and it's a nice day outside – we are not well equipped to deal with negative results. Then when failure and disappointment confront us, as inevitably they will, we feel personally threatened by them. Either we pretend that everything is fine (denial), or we go to the other extreme and judge ourselves harshly. (Jinpa, 2016)

Dr. Alvarez goes on to say that self-compassion allows one to name shame and move past its crippling effects. Even in training, imposter syndrome is greatly affected by lack of self-compassion. Feeling inferior to colleagues is brought upon by the negative self-talk associated with lack of self-compassion, constantly answering, "Am I good enough?" Self-compassion, we've seen, not only is protective from burnout, it also provides a means to overcome burnout. Coleman Ruiz, referencing *What It's Like To Go To War*, notes that compassion must be elicited consciously in warfare, or, many years later, "all the jammed wiring starts coming loose" (Marlantes, 2011).

Question: What Are You Actively Doing To Reflect On Your Lived Experience?

Shaun Huls, in working with both transitioning Operators and professional athletes, notes that structured journaling can be a profound way to make meaning of your evolving life. By putting emotions on paper, you make them real. You can ask questions like "Why did I lose my friend?" and "What was it all for?" in a private personal context. M.A. notes that, "just writing my thoughts/feelings down was deeply helpful for me as it helped me translate thoughts into words and practice communicating in a more academic framework, albeit most of my ramblings were stream of consciousness." It is also true, as Dr. Art Finch notes, MCTs often have high rates of ADHD, so traditional journaling can be tough to adopt.



Question: Are You Interacting Regularly With The Natural Environment?

Many contributors pointed at time spent in wilderness as a protective factor. Jelani Hale would often spend several days alone in the wilderness backpacking, camping, hiking, etc. after getting back from deployment to ground him and help him reflect.

Over 40 years of research showing that experiences of nature are linked to a remarkable breadth of positive health outcomes. This includes improved physical health, lower mortality from cardio-vascular disease, improved self-perceived general health, improved mental wellbeing, greater social wellbeing, and promotion of positive health behaviors. (Shanahan et al., 2016)

Dr. Finch goes on to say that this works well, and is often absolutely necessary for the more introverted Operators. Truly extroverted Operators will be miserable, unless they have at least one other person with them.

Question: What Is Your Personal Mythology And How Is It Evolving?

Beyond just the stories that we tell about ourselves, each of us has a personal mythology (Feinstein & Krippner, 1988), a deep sense and conviction of who we really are. What can become challenging is when that mythology needs to evolve. Operators have had diverse experiences even before joining the teams and we cannot minimize the fact that all of us are a sum of our own history. In order for protective factors to work, we will need to identify the personal mythologies that contribute to self-destruction.

Tom Hardy says, "One needs to dig a little deeper. And each individual will have their own story, the pre-journey that their professional journey and narrative is built upon. Or what are we running from? Where are we running to? What unresolved and often deeply pedestrian pains have we covered up with the pursuit of whatever that brings us here now?"

J.R. states, "A person's starting point, their past experience, matters. Grounded people seem to have collected more residue and can still be effective. Those with less grounding or sense of bigger self (whatever that is) struggle more with less residue. Not absolute, but the norm for sure. Once on the team, if the idea of being an Operator defines you, at some point your world is going to change abruptly and you will crash.

Harry Moffit goes on to note that, "how you define yourself matters, and if all you are is your title, you will have a challenge when you no longer have that title." M.A.: "I think most Operators believe they should take on the persona of the wounded, salty, slightly mentally damaged, road weary nomad. Not that they want sympathy but they also want their "character" to reflect the cost and the miles on them even if they appear in physical tip top shape. I have broken bones from blasts, spinal injuries, gunshot wounds, and my organs are discombobulated from overpressure, but I don't showcase any of that on the outside." As the Operator transitions, N.D. asks, "How do we help Operators craft their personal mythology?"

MISSION CRITICAL TEAM INSTITUTE

Question: What Are The Stories You Are Telling Yourself And Others?

All Mission Critical Teams share a culture of storytelling, so the story of one's life, the narrative, is really important. As the professional Irish story teller Clare Muireann Murphy notes, all stories have "bones," those essential moments that are required for the story to make sense. The question is whether Operators have the skills to determine what bones to use to tell the story of who they are.

The structure of these stories is strengthened when they are told in what Steve Jackson describes as an intimate environment absent from fear—where laughter from hearing the story and the resulting joy that comes from telling the story help guide the narrative framework.

Murphy goes on to say, "Carrying a story can be heavy work. For me, there is a limit on how many stories I can carry. After a while I have to retire certain stories, to give my psyche space to breathe. If there is no release valve, then the stories build up and create tension." As Dr. Art Finch, and Reverend Sue Phillips reference, the act of telling a story, which requires listeners and witnesses and being listened to, relieves some of that tension. As part of this, Murphy believes it is essential to open and close the story telling space in a ritualistic fashion to allow her psyche to know that that story has come to an end.

Dr. Al'ai Alvarez goes on to say that one strategy for dealing with that is Narrative Medicine (Charon, 2001), to help tell the story beyond the data. With the slant toward introversion within Operator populations, we often have more lurkers and listeners than we have storytellers. In our modern and more isolated social network environment, organizations like membership in the VFW, bowling leagues, and other fraternal organizations are on a significant decline. What replaces/can replace these story-telling forums?

Chief David Morkal notes:

When working in the firehouse, whenever we would go to a fire, we would come back and after cleaning up, we would sit around the kitchen table and talk about the fire. What did you do, what happened, what did you see? This was an informal debrief and it let us process things that could affect us without us even knowing it did. It let us process our first child victim, or first "roast," or first near-death experience. When we started doing more medical calls, we would come back from the medical call and go back to the rack, or back to whatever we were doing before the call. There was no sitting around the kitchen table. I realized, as a firefighter, this was not healthy when we had 5 DOAs in 5 tours in a row. The residue from the EMS runs was never processed out.

Question: What Is Your Expertise? Is It Evolving?

Learning the new rules of a new environment is a long term and deliberate game that requires patience. Being an expert learner is more valuable than being an expert. Shaun Huls notes that many Operators walk around with little notebooks constantly developing a task list. They feel good when they cross off an item. The question then becomes, What is the new task list? What motivates you? Could you take pleasure in being a great janitor?



By and large, Operators are experts at becoming experts; over time, they have weaponized their curiosity. How do we refocus that skill? For people who have been judged on their performance for years, How do they now judge what great performance might be? If you pride yourself on knowing the right answer, what happens when you don't? What happens, when it is now your job to ask questions?

Question: What Are You Intentionally Learning?

It can be any new skill, as long as it's not too easy: a language, designing something, a new sport. Denis Leary notes that as part of his transition process he will also spend time writing and reading. "This gets your mind off of the part and scenes you just played—the emotional world you just lived in and helped to create—and points you toward new roles and new emotional spaces." It is important to understand that when a person learns, they are literally modifying their neural architecture. It is about changing both behaviors and beliefs which allow new ways of thinking, or living.

N.D. notes that all good Operators require some degree of adaptation or adaptive thinking to be successful. I have often noticed that the Operators that struggle the most during their transition are the ones that stop learning, that plateau, or get stuck in old ways.

Learning is also about uncovering deeper truths. Tom Hardy states, "The Unconscious never lies. Trusting that is key. Knowing its intricacies takes time, and for that, one must come off the line for extended periods to gain a deeper wisdom. Inevitably, to begin the new fight."

Scott Glenn experienced this process of adaptive thinking riding an 850 lb. Harley Davidson cruiser bike at parade pace (very slowly). "What was great about that was that it requires behavior that is counter-intuitive; it requires complete attention and as much relaxation as possible." What Glenn is describing is a type of deep, generative learning that works to rewire the schema and heuristics in the brain (Wittrock, 1992). N.D. points at the historical importance of non-martial hobbies in martial societies.

It is reported that in ancient Sparta the second most valued skill in a man, after martial prowess, was his singing ability (Pressfield, 1999). "This is interesting as I think it likely contributes to the type of solitude and contemplation that brings meaning, value, and growth to suffering." Jelani Hale also comments on the importance of learning a new skill, "Many martial cultures encourage non-martial hobbies (painting, calligraphy, tea ceremony). I seemed to notice that the guys who had hobbies outside of work seemed to be better able to cope post deployment. It may have had a similar grounding effect. I was fortunate to have plenty of friends and interests outside of NSW, and I was able to stay fairly balanced."



External Protective Factors

Question: What Are You Doing To Stay Active?

Denis Leary relies heavily on hockey to help him decompress, as it is serious physical activity that involves the brain and the body. Getting out onto the ice several times a week—where speed, physical contact, and possible bodily harm are a constant given—often does the trick. "Hockey does not allow you to think about anything except what is going on in the game—otherwise you'll get crushed." Many contributors have referenced hiking, fishing, biking, skiing, singing, horseback riding, yoga, etc.

Question: What Is Your Craft?

There is a Zen Proverb that states, "Before enlightenment, chop wood and carry water" (Suzuki, 2010). There are certain truths only revealed in the practice of precise skilled workmanship, whether it is wood working, knife making, bonsai tree curation, or any craft or art. S.B. talks about his ownership of a 20-acre property and the fact that "there is always something to do or tie up my mind and focus my efforts. It challenges me both physically and mentally and tends to shift my attention to the now and the desired outcome of the activity I am engaged with and thus fades the memories and loss which I strongly believe continues to assist my now." He goes on to talk about the profit of a hard day's work. "The only advice I can offer is to get those people busy both mentally and physically in an activity where they can see the desired goal and once achieved, feel proud of what they obtained, thus strengthening their mind and body."

Question: What Are Your Rituals?

There are reasons that religious rituals, birthdays, and weddings have endured for hundreds of years. The structure, the certainty, the touchstone of predictability can be a comfort in times of uncertainty (Bell, 1997; Turner, 1995). Jelani Hale, in talking about the loss of team member, asks, "What is the best way to honor a lost friend? Many of my colleagues were never able to say goodbye to a friend or attend a funeral, and as a result they never had closure and the loss continued to eat away at them." Shaun Huls also asks, "What is the right ritual for closure?" In addition, what role should ritual play at the end of a deployment or after an intense experience? Briefly, it should be noted that whatever ritual exists must be created, and made sacred, by the community that utilizes the ritual (Van Gennep, 2011).

Coleman Ruiz believes that without reinstating rituals and ceremony, without mentors, elders, and expectations set, one cannot effectively process residue. Dr. Al'ai Alvarez points to ritual as a form of connection and a sense of community. Harry Moffit is one of many contributors to point toward surfing as a significant protective factor: "I used to go for a surf the day prior to deployment, shitty waves or not, and say goodbye to the beach as I drove away and hope I would be back for a wave soon ... then not long after we got home, I would go for a wave, shitty waves or not, and when I jumped in I knew I was home and safe. Indeed, we used to go for a wave as a team in the same way on many occasions . . ."



Dr. Art Finch describes rituals as bookmarks, or lines in time that mark a point of departure in some process. The ceremony itself is a bundle of traditions that set a bookmark and transition point in life that validates and endorses the relationship and typically brings together "tribes," where the grey beards can enlighten the younger generation. But rituals must be organic and meaningful to the participants.

Jelani Hale goes on to ask, "What is the best way to turn off the warrior mindset, and return to the peacetime mindset?" Many I know continue to maintain their warrior mindset after they come home, and I imagine that over time, that will have a very negative effect on the central nervous system and psychological state.

Denis Leary says:

The act of letting go of a character or job has a lot to do with the clothing and especially any props that belong to the character, a gun, a ring, a watch, a tee shirt or a pair of shoes, that acts to remind me every single morning that I am playing someone else. It becomes a touchstone that helps me drop into the zone each day. So, when the shoot is all over—after that final day of work—I can take it off and know I'm back to civilian life.

When I played Tommy Gavin on Rescue Me for seven years, his bunker gear and helmet were real touchstones for me. The last time I peeled them off felt like the day I let that character go and returned to being myself. Of course, that job carried the weight of many friends and a family member who were firefighters and had given their lives in the line of duty. So, the day Tommy Gavin turned in his gear was a day of mourning on several levels for me.

Because I was able to deal with my grief over losing those guys in such a direct fashion on that show—as a writer and as an actor. But I also loved playing the character. That was a very complicated process—playing him off and on for seven years and finally letting him go. Took a long time.

Reverend Sue Phillips goes on to imagine Operators being lovingly released from their oaths and their service, by the people they were committed to in the first place. Imagine his/her family/civilian community ritually welcoming them back. Rites of Passage safeguard and support threshold moments. There need be no abandonment of one's previous self to move into another phase, or emphasize another part of oneself. Rites of passage ritualize, formalize, encourage, ennoble, and invite the community to participate in an individual's movement from one way of being to another.



Question: How Are You Creating Connection And Belonging?

Jeff Tiegs, former U.S. Army Special Operations, and now leading veteran Operators to combat human trafficking with Guardian Group, believes that we will forego basic essentials for moments of Love and Belonging. "Operators will suffer immensely for our tribe, and it is the tribe that reinforces our self-esteem, which is based in honor, integrity, reputation." Reverend Sue Phillips identifies three needs of the soul:

- Belonging: Being fully Known and fully loved.
- Becoming: Growing our capacity to become the people we are called to be.
- Beyond: Experiencing ourselves as part of something more.

Reverend Phillips explains that belonging requires an outward need of psychological security and an inward provision for self-compassion. It turns out that at the edge of things, some problems cannot be resolved in the absence of love. Of both loving someone and being loved in return.

Dr. Al'ai Alvarez believes that it is the role of mentors and coaches to normalize the feeling of isolation and to encourage development of self-compassion in order to create connection to a community. Reverend Phillips references the concept of Eldership, of taking on the role of the community elders. M.A. then asks, "What happens when you surround yourself with what you view as mediocre performers after decades with high performers? Part of transition is understanding that you will never replicate the caliber of teammates you left, but that you can harness your leadership skills to shepherd your new teammates to excellence."

Question: How Are You Balancing Your Solitude With Connection?

Coleman Ruiz notes that upon return home, "I found myself outside of my tribe, and dropped into a foreign country (civilian community), wondering what the new rules were. To make matters worse, I didn't know what type of rules to look for. The rules of a stable, non-physically threatening environment weren't believable at first." This "lack of rules," when what's permitted or not permitted simply isn't clear anymore, is referred to as *Anomi*—which can often lead to alienation, or being "isolated or estranged," either intentionally or unintentionally. Ruiz comments that "alienation in transition is being constrained by the social system you don't fully understand while induced or encouraged to act in ways that go against your goals." The challenge is that returning Operators have no way to describe their experiences, and so isolate to try and make meaning. The problem, as Shaun Huls notes, "Isolation is Bad."



Dr. Alvarez makes an important distinction between solitude and isolation:

As a physician, I need solitude at times to recharge and gather my thoughts. Isolation or loneliness differs from solitude in that it is a form of solitude plus avoidance of connection due in part to shame. From a physician standpoint, isolation or loneliness happens after key events: a medical error, a death, patient complaint, litigation, or more commonly, simply being involved in resuscitation or care of an emotionally charged case. We take this home. This is referred to as the second victim phenomenon (SVP) or the second trauma phenomenon. SVP happens regardless of whether there's medical error, complaint, or litigation, and may lead to isolation because the physician is not able to reach out for help because of the shame they are feeling. Shame, it seems, is the core of isolation.

M.A. believe that alienation is the number one cause of depression in returning servicemembers. This is a direct result of the incongruency between the positive and the negative of the lived experience. The excitement of returning home, while also knowing that you are headed right back out sooner than later, which never allows for closure. "Every time we hit turbulence on a plane ride, I take my wife's hand that is dripping with sweat and tell her it's going to be okay. Without fail she turns to me with concern and asks why I don't reflect her same concern. I feel alien. I couldn't muster the fear if I tried. Part of me wishes I could regain that fear."

Dr. Art Finch also notes that isolation and alienation are magnified because Operators tend to skew toward the introverted side of the personality spectrum. Introverts are less skilled at accurately tracking social and interpersonal cues, so they need to actively elicit feedback from significant others. "When you leave a social interaction, tell your significant other what you thought was happening during the exchange, then ask them what they saw and thought. It will most likely be different from yours. If so, you are wrong, and you should believe their observations."

Question: How Are You Intentionally Maintaining Your Family Bonds?

Jelani Hale and Denis Leary both talk about spending a lot of time with family and friends to get back into real time and real life to help process the residue. This is obvious but often overlooked. Hale states that "Most develop really strong bonds with their fellow Operators, and these bonds are different and often more intense/fun/exciting than the bonds created with family. I always tried to prioritize family over work when I got home. I took all of my vacation (and more). I did not volunteer for every cool lock picking or race car driving school right after a deployment. I visited extended family whenever possible."

Coleman Ruiz notes the mixed messages, as family time is often a call to slow down, to rest, to take care of themselves for once. They often just do not know how and need outside support, which they do not know how to ask for. M.A. talks about family as the great neutralizer, the people who can instantly disarm the cloak of invisibility and peel away the curtain to reveal the whole engine churning away. They may not see the residue, but they are the best gauge to benchmark and run diagnostics on you. They definitely should know when the "check engine light" comes on.



Dr. Art Finch points out that families are the single setting where Operators can be as uncompartmentalized, anxious, and vulnerable as they will ever be. It can be very therapeutic, as long as the family can tolerate it.

Loss of family is one of the most significant, yet common casualties in the life of an Operator. For more introverted personalities, being around family can be highly stressful. The stress comes from the pressure of interacting with multiple people in close proximity for extended periods of time.

The stress is elevated by the realization that they are becoming stressed out, by the very people they are supposed to love unconditionally and whom they believe they should always want to be around. At times, just slipping away for a drive or a movie by themselves is sufficient to break through the stress. The Operator's high level of emotional compartmentalization can make them seem "cold, detached, and inaccessible to family members." Low anxiety and mismatched anxiety can cause great stress in Operator family relationships. When a family member is stressed about something and the Operator is not, then that family member will do things to elevate the Operator's anxiety until they are compelled to respond or act.

Question: What Is Your Third Thing?

The Third Place are the locations in our lives that separate us from the two usual social environments of home ("first place") and the workplace ("second place"). Places like wilderness, gyms, cafes, clubs, churches, libraries, etc. (Oldenburg, 1989; Putnam, 2000). Shaun Huls, along with many contributors, believe that Operators need multiple hobbies—woodworking, gardening, leading youth groups—to separate work from home life. Harry Moffit believes that one of the reasons his transition went smoother than others is because in addition to being an Operator, he was always part of a rock and roll band (The Externals, an amazing Australian SAS rock band) made of people outside of the team and 20 years with a football and cricket club. "I have a whole other habitat full of trusted and lifelong mates who are completely different, but exactly the same as my Operator mates." Dr. Art Finch agrees that the Operators who struggle the most with transition are the ones for whom the military, team, and rank were their whole world. In addition, those who seem to struggle the most are those whose family members wear the Operator's career and status as their own: "*Well, I'm the Command Sargent Major's wife!*"

Question: What Are You In Service To?

Operators need goals and purpose. Dr. Josh Gold, in referencing issues of cognitive control, notes that Operators constantly need to accurately represent, update and maintain their goals. Coleman Ruiz comments that "alienation emerges primarily from a misalignment of your personal values and how best to use them in impacting the people around you. The two questions I often ask myself today is 'Who do you want to help?' and 'What do you want to learn?' This helps to give me tremendous clarity and direction."

Dr. Al'ai Alvarez notes that for stress to be enhancing, rather than stressful, the Operator must be in service to something greater than themselves (Dweck, 2008; McGonigal, 2016).



This perspective often allows people to experience a stress such as negative feedback as a way to move toward the larger goal rather than just personal criticism. Dr. Art Finch goes on to note that Operators who are able to receive negative feedback in the civilian world are able to become more comfortable allowing emotions and anxiety to better inform and influence their decision-making as leaders, rather than avoiding the perceived intrusion. "In my mind, this has always been 'residue' being metabolized into 'wisdom.'"

Organizations like Team Rubicon (https://teamrubiconusa.org/) were founded on the idea of continued service, and have positively impacted thousands of Veterans. Scott Glenn noted that in between films "...volunteering for anything that serves something other than yourself" has been really helpful to his transitions. Glenn describes entering a character: "For me it all boils down to finding the bare bones of the character—this is about re-entry, coming back to neutral, and understanding that the mission of your life has changed." As he transitions out of the role, however, Glenn describes the downside of the transition: "Because I no longer have the security or structure, no longer have that special purpose to wake up with or go to sleep with." Shaun Huls notes that Operators don't want charity, they want challenge. They miss being dangerous, of having skin in the game, meaning, and significance.

Closing Thoughts From The Author

It has been almost a year and half since that first conversation with Tom Hardy. In that time, I have lost several more friends to suicide. Each time, it shattered me, and at times this paper felt like a lingering self-inflicted wound. Then, as the residue project grew, people quietly approached to let me know that being part of the project—learning that they weren't broken, victims, or cursed to live in pain with no hope—was what ultimately made them decide not to take their own life.

This paper is based on the rejection of the idea that Operators in Medicine, Fire, Law Enforcement and Military, must sacrifice their lives and souls in exchange for living a life of service. That together, as a community of Operators and academics, we can find ways to help them process their extreme experiences into the fuel that grows their wisdom, not the poison that fuels their sorrow.

It is now time to turn this project over to you, and the Mission Critical Team community, to assist with this ongoing research. Below is a survey link to get your thoughts, and a live link to the survey report so you can read what others are saying. Thank You.

Survey Link https://corexmsdff4qgcml5by2.sjc1.qualtrics.com/jfe/form/SV_e9k9JL7fOhT6oyF

Live Report Link

https://corexmsdff4qgcml5by2.az1.qualtrics.com/reports/RC/public/Y29yZXhtc2RmZjRxZ2Ntb DVieTItNWU5MDY0NjE0YzY4MDEwMDEwYzBjNzYxLVVSX1RqOE1zUlB0NXVzbHRW bg==



Section 5: Appendices Research Methodology

After first hearing Tom Hardy's description of *residue*, the emergent idea was turned into a "Green Paper" to provoke a generative discussion within the MCTI Collaborative Inquiry research community, allowing us access to the diverse perspectives of practitioners and researchers to bridge the divide between the theoretical and the applied (Bishop, 1995, 1999; Lucas, 1988).

I had key conversations with Jelani Hale, who introduced me to Scott Glen; Chief David Morkal, who introduced me to Denis Leary; and Shaun Huls, who at the time was the head of performance for the Philadelphia Eagles. Shaun and I had met years earlier when he worked in the Human Performance cell at Naval Special Warfare. After hearing me talk about residue, he explained how he had become acutely aware of the downside of the "recovery" movement and had a growing belief that, in the well-intentioned effort to get Operators the physical, psychological, and emotional help they need, professionals are too quick to label Operators as "broken, victims, or survivors," or something else that acts to diminish the Operator in some way. It was that conversation with Shaun that triggered the idea that perhaps it was time to help move the conversation from one of deficit and victimizing to one of strength and intention.

Using the Search Institute Developmental Asset Framework (Appendix B) (Scales & Leffert, 1999) I first encountered studying under Dr. Mike Nakkula at Harvard Graduate School of Education, I presented Version 2 of this Green Paper in both New York and Melbourne, at our yearly 2019 Mission Critical Team summit. At these summits I received feedback from 30 independent contributors as well as 190 professionals representing Mission Critical Teams in Australia, Canada, New Zealand, the UK, and the U.S. That initial feedback, followed by iterative reviews, was then organized into this White Paper.

Contributors were discovered through "Chain Referral" sampling methods, where trusted and informed subject matter experts (SMEs) refer me to other SMEs (Robson, 2002, pp. 275-276). After a year of distribution and dialogue, the "Residue Green Paper" was presented at the Mission Critical Team Summits in both New York, United States, June 27-28, 2019 and Melbourne, Australia, July 18-19, 2019. Focused group discussions (Robson, 2002) were used at both summits to gather their input.

In addition, to the 30 individual contributors (Appendix A), we received input and commentary from an additional 192 individuals representing Special Operations, Emergency Medicine, Urban and Wildland Fire, Tactical Law Enforcement and Aerospace (NASA). This data was then imported into the qualitative software NVIVO 12 and "coded" and organized based on shared themes using a methodology qualitative researchers refer to as thematic coding and analysis (Saldaña, 2012) resulting in an initial 77 codes which were populated by 261 references.

This data was then organized referencing the RDoC Domains and constructs (Insel et al., 2010), and the Search Institute (Appendix B) (Scales & Leffert, 1999).



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Appendix B

Search Institute Developmental Assets <u>https://www.search-institute.org/</u> developed 40 developmental assets associated with positive youth development (Scales & Leffert, 1999)

EXTERNAL ASSETS: The supports, opportunities, and relationships young people need across all aspects of their lives.

- 1. Support: Young people need to be surrounded by people who love, care for, appreciate, and accept them.
 - a. Family support—Family life provides high levels of love and support.
 - b. Positive family communication—Young person and their parent(s) communicate positively, and young person is willing to seek parent(s) advice and counsel.
 - c. Other adult relationships—Young person receives support from three or more nonparent adults.
 - d. Caring neighborhood—Young person experiences caring neighbors.
 - e. Caring school climate—School provides a caring, encouraging environment.
 - f. Parent involvement in schooling—Parent(s) are actively involved in helping young person succeed in school.
- 2. Empowerment: Young people need to feel valued and valuable. This happens when youth feel safe and respected.
 - a. Community values youth—Young person perceives that adults in the community value youth.
 - b. Youth as resources—Young people are given useful roles in the community.
 - c. Service to others—Young person serves in the community.
 - d. Safety—Young person feels safe at home, school, and in the neighborhood.
- 3. Boundaries and Expectations: Young people need clear rules, consistent consequences for breaking rules, and encouragement to do their best.
 - a. Family boundaries—Family has clear rules and consequences, and monitors the young person's whereabouts.
 - b. School boundaries—School provides clear rules and consequences.
 - c. Neighborhood boundaries—Neighbors take responsibility for monitoring young people's behavior.
 - d. Adult role models—Parent(s) and other adults model positive, responsible behavior.
 - e. Positive peer influence—Young person's best friends model responsible behavior.
 - f. High expectations—Parent(s) and teachers encourage the young person to do well.
- 4. Constructive Use of Time: Young people need opportunities—outside of school—to learn and develop new skills and interests with other youth and adults.
 - a. Creative activities—Young person spends three or more hours per week in lessons or practice in music, theater, or other arts.
 - b. Youth programs—Young person spends three or more hours per week in sports, clubs, or organizations at school and/or in community organizations.
 - c. Religious community—Young person spends one or more hours per week in activities in a religious institution.
 - d. Time at home—Young person is out with friends "with nothing special to do," two or fewer nights per week.



INTERNAL ASSETS: The personal skills, commitments, and values they need to make good choices, take responsibility for their own lives, and be independent and fulfilled.

- 5. Commitment to Learning: Young people need a sense of the lasting importance of learning and a belief in their own abilities.
 - a. Achievement motivation—Young person is motivated to do well in school.
 - b. School engagement—Young person is actively engaged in learning.
 - c. Homework—Young person reports doing homework every school day.
 - d. Bonding to school—Young person cares about their school.
 - e. Reading for pleasure—Young person reads for pleasure three or more hours per week.
- 6. Positive Values: Young people need to develop strong guiding values or principles to help them make healthy life choices.
 - a. Caring—Young person places high value on helping other people.
 - b. Equality and social justice—Young person places a high value on promoting equality and reducing hunger and poverty.
 - c. Integrity—Young person acts on convictions and stands up for their beliefs.
 - d. Honesty—Young person "tells the truth even when it is not easy."
 - e. Responsibility—Young person accepts and takes personal responsibility.
 - f. Restraint—Young person believes it is important not to be sexually active or to use alcohol or other drugs.
- 7. Social Competencies: Young people need the skills to interact effectively with others, to make difficult decisions, and to cope with new situations.
 - a. Planning and decision-making—knows how to plan ahead and make choices.
 - b. Interpersonal competence—has empathy, sensitivity, and friendship skills.
 - c. Cultural competence—Young person has knowledge of and comfort with people of different cultural/racial/ethnic backgrounds.
 - d. Resistance skills— Young person can resist negative peer pressure and dangerous situations.
 - e. Peaceful conflict resolution—Young person seeks to resolve conflict nonviolently.
- 8. Positive Identity: Young people need to believe in their own self-worth and to feel that they have control over the things that happen to them.
 - a. Personal power—feels they have control over "things that happen to me."
 - b. Self-esteem—Young person reports having a high self-esteem.
 - c. Sense of purpose—Young person reports that "my life has a purpose."
 - d. Positive view of personal future—Young person is optimistic about their personal future.



Appendix C

Factors to help process the Residue from Extreme Positive and Negative Experiences Internal Protective Factors

- What Are You Actively Doing to Influence Your Attitude?
- Have You Had Your Chemistry and Sleep Tested?
- Are You Working on Improving Your Breathing?
- How Are You Actively Managing Your Sleep?
- Are You Regularly Pursuing Laughter, Joy and Play?
- How Are You Positively Influencing Your Inner Monologue?
- Are You Mourning Your Losses?
- Are You Engaged in An Intentional Mindful Practice?
- How Are You Becoming More Self-Aware?
- What Do People See When They Watch You?
- How Are You Actively Practicing Self-Compassion?
- What Are You Actively Doing to Reflect on Your Lived Experience?
- Are You Interacting Regularly with The Natural Environment?
- What Is Your Personal Mythology and How Is It Evolving?
- What Are the Stories You Are Telling Yourself and Others?
- What Is Your Expertise? Is It Evolving?
- What Are You Intentionally Learning?

External Protective Factors

- What Are You Doing to Stay Active?
- What Is Your Craft?
- What Are Your Rituals?
- How Are You Creating Connection and Belonging?
- How Are You Balancing Your Solitude with Connection?
- How Are You Intentionally Maintaining Your Family Bonds?
- What Is Your Third Thing?
- What Are You in Service To?



Lexicon

Anomie: Lack of the usual social or ethical standards in an individual or group. Condition in which society provides little moral guidance to individuals. This evolves from conflict of belief systems and causes breakdown of social bonds between an individual and the community.

Collaborative Inquiry: In this context, it refers to a process where researchers partner with communities of practice to collaboratively resolve an emergent question (Miles, Huberman, & Saldaña, 2013, p. 56).

Community of Practice: Is a group of people who share a distinct profession, language, culture and mythology (Turner, 1995; Van Gennep, 2011; Wenger, 2000).

Flow: A term coined by Mihaly Csikszentmihalyi to denote a type of focused motivation and optimal state of execution where time and space seem to slow (Csikszentmihalyi, 1990).

Immersion Event: A discreet liminal event, where the individual or the team must pass through a crisis. They cannot volunteer out of the event, they must see it through (Fighting a fire, combat, surgery, rocket launch, etc.).

Liminality (from the Latin word *līmen*, meaning "a threshold") is a state of being where the individual, or group, is on the "threshold" between two realities. A Rite of Passage, Initiation, or Transition is often used to recognize a change of status. The liminal state is characterized by internal and external uncertainty, where new ways of being are possible. The liminal state is characterized by ambiguity, openness, and indeterminacy. One's sense of identity dissolves to some extent, bringing about disorientation. Liminality is a period of transition where normal limits to thought, self-understanding, and behavior are relaxed—a situation which can lead to new perspectives. Those who remain in a state between two other states may become permanently liminal. (Turner, 1995; Van Gennep, 2011).

Mission Critical Team: Defined as a small (4-12 agents) integrated group of indigenously trained and educated experts that leverage tools and technology to resolve complex adaptive problems in an immersive temporal environment of five minutes or less, where the consequence of failure is death or catastrophic injury (Cline, 2017).

Rite of Passage: In anthropological theories, a Rite of Passage is a ritual that involves some change to the participants, especially their social status. It is a process that transitions a person through a liminal space from one status to another (Turner, 1995; Van Gennep, 2011).

Separation: The first stage of a Rite of Passage where an individual withdraws from their current status and community to enter into liminality—with the hope and intention of being incorporated into a new community with a new status.

Tribe: Used by anthropologists to describe a group of distinct people, who are largely self-sufficient, and not integrated into the national society (Fried, 1975).





References

- Barwood, M. J. (2006). Breath-Hold Performance During Cold Water Immersion: Effects fo Psychological Skills Training. *Aviation, Space, and Environmental Medicine, 77*(11).
- Baumeister, R. F., Bratslavsky, E., Finkenauer, C., & Vohs, K. D. (2001). Bad is stronger than good. *Review* of general psychology, 5(4), 323-370.
- Bell, C. (1997). *Ritual: Perspectives and dimensions*: Oxford University Press.
- Bishop, R. (1995). Collaborative research stories: Whakawhanaungatanga. Unpublished PhD thesis, University of Otago, Dunedin.
- Bishop, R. (1999). Collaborative Storytelling: Meeting Indigenous Peoples' Desires for Self-Determination in Research.
- Borup, J. (2008). Japanese Rinzai Zen Buddhism: Myōshinji, a Living Religion: Brill.
- Brown, S., Cockett, P., & Yuan, Y. (2019). The neuroscience of Romeo and Juliet: an fMRI study of acting. *Royal Society open science*, *6*(3), 181908.
- Brown, S. L. (2009). *Play: How it shapes the brain, opens the imagination, and invigorates the soul:* Penguin.
- Campbell, J. (2008). The hero with a thousand faces (Vol. 17): New World Library.
- Campbell, J., & Moyers, B. (2011). The power of myth: Random House LLC.
- Catmull, E., & Wallace, A. (2014). *Creativity, Inc: overcoming the unseen forces that stand in the way of true inspiration*: Random House.
- Chamorro-Premuzic, T. (2016). Strengths-based coaching can actually weaken you. *Harvard Business Review*.
- Charon, R. (2001). Narrative medicine: a model for empathy, reflection, profession, and trust. *Jama*, *286*(15), 1897-1902.
- Cline, P. (2017). *Mission Critical Teams: Towards a University Assisted, Mission Critical Team Instructor Cadre Development Program*. Dissertation for Doctorate in Education. University of Pennsylvania Graduate School of Education.
- Csikszentmihalyi, M. (1990). Flow: The psychology of optimal performance. In: New York: Cambridge University Press.
- Dweck, C. S. (2008). *Mindset: The new psychology of success*: Random House Digital, Inc.
- Feinstein, D., & Krippner, S. (1988). *Personal mythology: The psychology of your evolving self*: Jeremy P. Tarcher Los Angeles.
- Fried, M. H. (1975). The notion of tribe (Vol. 342): Cummings Publishing Company Menlo Park, CA.
- Green, G. P., & Haines, A. (2011). Asset Building & Community Development: SAGE Publications.
- Grutters, J. P., van Asselt, M. B., Chalkidou, K., & Joore, M. A. (2015). Healthy decisions: towards uncertainty tolerance in healthcare policy. *Pharmacoeconomics*, *33*(1), 1-4.
- Insel, T., Cuthbert, B., Garvey, M., Heinssen, R., Pine, D. S., Quinn, K., . . . Wang, P. (2010). Research domain criteria (RDoC): toward a new classification framework for research on mental disorders. In: Am Psychiatric Assoc.
- James, H. (1881). The Portrait of a Lady: 1881: Infomotions, Incorporated.
- Jinpa, T. (2016). A fearless heart: How the courage to be compassionate can transform our lives: Avery.
- Jung, C. G. (2014). *The archetypes and the collective unconscious*: Routledge.
- Junger, S. (2016). Tribe: On homecoming and belonging: Hachette UK.
- Kabat-Zinn, J., Lipworth, L., & Burney, R. (1985). The clinical use of mindfulness meditation for the self-regulation of chronic pain. *Journal of behavioral medicine*, 8(2), 163-190.

Kübler-Ross, E. (1973). On death and dying: Routledge.

Levine, P. A. (2010). *In an unspoken voice: How the body releases trauma and restores goodness:* North Atlantic Books.



- Litz, B. T., Stein, N., Delaney, E., Lebowitz, L., Nash, W. P., Silva, C., & Maguen, S. J. C. p. r. (2009). Moral injury and moral repair in war veterans: A preliminary model and intervention strategy. 29(8), 695-706.
- Lowe, C., Brimah, T., Marsh, P.-A., Minter, W., & Muyangwa, M. (1997). *Talking about" tribe": Moving from stereotypes to analysis*: Africa Policy Information Center.
- Lucas, P. (1988). An Approach to Research Based Teacher Education Through Collaborative Inquiry. Journal of Education for Teaching, 14(1), 55-73. doi:10.1080/0260747880140105
- Marlantes, K. (2011). What it is Like to Go to War: Atlantic Monthly Press.
- McGonigal, K. (2016). *The upside of stress: Why stress is good for you, and how to get good at it:* Penguin.
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2013). *Qualitative data analysis: A methods sourcebook:* SAGE Publications, Incorporated.
- Neff, K. D. (2011). Self-compassion, self-esteem, and well-being. *Social and personality psychology compass*, 5(1), 1-12.
- Oldenburg, R. (1989). The great good place: Café, coffee shops, community centers, beauty parlors, general stores, bars, hangouts, and how they get you through the day: Paragon House Publishers.

Philippot, P., Chapelle, G., & Blairy, S. (2002). Respiratory feedback in the generation of emotion. *Cognition and Emotion, 16*(5), 605-627. doi:10.1080/02699930143000392

- Plummer, K. (2011). The labelling perspective forty years on. In *Langweiliges Verbrechen* (pp. 83-101): Springer.
- Pressfield, S. (1999). Gates of fire: An epic novel of the battle of Thermopylae: Bantam.
- Purdy, G. (2010). ISO 31000:2009--Setting a new standard for risk management. *Risk Anal, 30*(6), 881-886. doi:10.1111/j.1539-6924.2010.01442.x
- Putnam, R. D. (2000). Bowling alone: America's declining social capital. In *Culture and politics* (pp. 223-234): Springer.
- Rama, S., Ballentine, R., & Hymes, A. (1998). *Science of breath: A practical guide*: Himalayan Institute Press.
- Robson, C. (2002). Real world research (Vol. 2): Blackwell publishers Oxford.
- Rosenthal, R. (2002). The Pygmalion effect and its mediating mechanisms. In *Improving academic achievement* (pp. 25-36): Elsevier.
- Rutter, M. J. T. B. J. o. P. (1985). Resilience in the face of adversity: Protective factors and resistance to psychiatric disorder. *147*(6), 598-611.
- Saldaña, J. (2012). The coding manual for qualitative researchers: Sage.
- Scales, P. C., & Leffert, N. (1999). *Developmental assets: A synthesis of the scientific research on adolescent development:* Search Institute.
- Shanahan, D. F., Bush, R., Gaston, K. J., Lin, B. B., Dean, J., Barber, E., & Fuller, R. A. (2016). Health benefits from nature experiences depend on dose. *Scientific reports*, *6*, 28551.
- Shay, J. (2010). Achilles in Vietnam: Combat trauma and the undoing of character: Simon and Schuster.
- Simpson, J. A., & Weiner, E. S. C. (1989). *The Oxford English dictionary* (2nd / ed.). Oxford University Press,: Clarendon Press ; New York :.
- Spreng, R. N. (2012). The fallacy of a "task-negative" network. *Frontiers in psychology, 3*, 145.
- Suzuki, S. (2010). Zen mind, beginner's mind: Shambhala Publications.
- Turner, V. (1995). The ritual process: Structure and anti-structure: Transaction Publishers.
- Van der Kolk, B. (1994). The body keeps the score: Memory and the evolving psychobiology of posttraumatic stress. *Harvard review of psychiatry*, 1(5), 253-265.
- Van Gennep, A. (2011). The rites of passage: University of Chicago Press.

Vogler, C. (2007). The Writer's journey: Michael Wiese Productions Studio City, CA.



Wenger, E. (2000). Communities of practice and social learning systems. *Organization, 7*(2), 225-246. Wittrock, M. C. (1992). Generative Learning Processes of the Brain. *EDUCATIONAL PSYCHOLOGIST, 27*(4), 531-541.