FEATURE ARTICLES

The Necessity of Grit and Hardiness in Leading with Character

Celeste Raver Luning, United States Naval Academy

Andrew Ledford, United States Naval Academy

ABSTRACT

There are a myriad of character traits and attributes that are necessary for leading with character and resolve. All of which carry various benefits for the individual leader and have the potential to greatly impact teams and organizations. With this array of necessary traits and characteristics, it can be difficult to know what traits leaders should focus on understanding and developing as they build their leadership skill-set. This article argues that grit (passion, perseverance, and consistent interest toward a long-term goal) and hardiness (commitment, openness to challenge, and control) serve as quintessential traits for leading with character and resolve. While distinct traits, grit and hardiness operate in a symbiotic manner, which allows leaders to develop a strong sense of personal identity and promotes his or her ability to lead with strength and resolve. In-turn, grit enables the leader to be keenly in-tune with the organization's mission, clearly depict the mission to the organizational members, and his or her hardy nature provides the leader with the ability to positively propel organizational members through both minor and more catastrophic obstacles as they collectively work toward the shared goals and ultimately mission of the organization.

Celeste K. Raver Luning, Ph.D., is the Class of 1967 Leadership Research Fellow in the Leadership, Ethics, and Law Department at the United States Naval Academy. Her research focuses on understanding the dynamic nature of organizations, to-date her primary research has focused on extending the individual grit construct to the organizational level. Prior to embarking into the academic world, she was part of a team that built and ran a successful multi-location service business in Southern California, in which she served as the Chief Operating Officer. Dr. Raver Luning obtained her Ph.D. in Organizational Leadership from the University of Maryland Eastern Shore, holds a Masters of Business Administration with an emphasis in Entrepreneurship from Pepperdine University, and a Bachelors of Arts in Philosophy from the University of Maryland Baltimore County.

Leaders must have strength of character and resolve in order to inspire individuals, teams, and organizations. The development of character and resolve accomplishes two important tasks in leaders: 1) it enhances steadfastness in accomplishing their own goals and mission, thereby increasing the likelihood of the organization's success, and 2) it inspires those around the leader to follow suit in their passion and commitment toward the organizational goals and mission. Developing strength of character and resolve requires leaders to be aware of their own traits and how those traits can and should be utilized to inspire. Knowledge of one's traits can help individuals operate in a manner in which their own goals and actions align. When a leader operates in this manner, it sets the tone for others to follow. Ultimately, it helps create an environment of cohesion, a necessity for operational effectiveness of any organization or team (Daspit, Tillman, Boyd, & Mckee, 2013; Lehrke, 2014).

Two key attributes that can help leaders develop character and resolve are grit and hardiness. Over the last decade, there has been an increasing interest in the development of grit which consists of passion, perseverance, and a consistent effort toward a long term goal (Duckworth, Peterson, Matthews, & Kelly, 2007) in order to achieve greater success in life (Duckworth & Gross, 2014; Duckworth, Quirk, Gallop, Kelly, & Matthews, 2019; Mooradian, Matzler, Uzelac, & Bauer, 2016; Pate et al., 2017). A similar psychological construct, hardiness, consisting of commitment, an openness to challenge, and a sense of control (Kobosa, 1979), has been somewhat overlooked in the recent psychological literature. Despite its lack of popularity in recent literature, hardiness has long been a trait of interest with those who operate in extreme and stressful environments, such as the military (Bartone, 1999; Bartone, Roland, Picano, & Williams, 2008; Dolan & Adler, 2006; Westman, 1990).

In the leadership literature, the importance of the development of the leader's grit (Caza & Posner, 2019; Schimschal & Lomas, 2019) and hardiness (Bartone, 2006; Bartone, Eid, Johnsen, Laberg, & Snook, 2009; Eid, Johnsen, Bartone, & Nissestad, 2007) for leadership performance is clear. This article provides a detailed account of how the traits of grit and hardiness overlap as a foundation for leaders of character. Further, the authors will make the argument for how grit and hardiness serve as the underpinning for a leader's ability to create an environment of cohesion within teams and organizations by enabling the leader to operate in a manner in which their own values and actions align.

CDR Andrew Ledford, Ph.D., is a Permanent Military Professor and an Assistant Professor of Leadership and Ethics at the United States Naval Academy. He teaches the core class of leadership and the Code of the Warrior elective. His past research has been on social movement in Iran as well as the nexus of religion and politics in the Middle East. More recently he leads a research group based in Annapolis on mindfulness, grit, hardiness, and resilience. Dr. Ledford has a master's degree in International Relations with a focus on Irregular Warfare from the Naval War College, where he was the honor graduate. He spent over twenty years in the SEAL Teams as a Naval Special Warfare officer, which included several tours to both Iraq and Afghanistan in addition to other regions before receiving a master's degree in sociology and his Ph.D. from Princeton University where he studied political sociology and social network analysis.

Grit

Despite its recent popularity as a critical personality trait, the idea of grit as a representation of one's determination and resolve is not a new or novel idea. Some of the earliest uses of the term as a personality trait can be linked to literary work. In an excerpt in the Atlantic Monthly, Hawthorne (1863) wrote, "his main deficiency was a lack of grit. Though anything but a timid man, the combative and defensive elements were not prominently developed in his character, and could have been made available only when he put an unnatural force upon his instincts" (p. 613). Much of Alger's literary work focused on the striving of young boys as they developed strong character and resolve, or grit (Ris, 2015). In fact, one of Alger's (1892) books is titled, Grit, in which the main character Harry "Grit" Morris epitomizes the trait. Alger wrote of the character,

"...even a superficial observer could read in it unusual firmness and strength of will. He was evidently a boy whom it would not be easy to subdue or frighten. He was sure to make his way in the world, and maintain his rights against all aggression. It was the general recognition of this trait which had led to the nickname, "Grit," by which he was generally known." (p. 3)

In the 1930s, grit on the athletic fields became a popular topic, but by the 1960s and 1970s the usage of the word grit began to decline (Ris, 2015). Duckworth et al. (2007) re-introduced the concept within the field of psychology.

In the psychological literature, grit is described as a personality trait in which gritty individuals are more apt to push past obstacles and remain focused on a particular goal, not just in the short-term but over years and even decades (Duckworth et al., 2007; Duckworth

& Gross, 2014). Scales created to measure grit, assess only two-dimensions of grit: 1) perseverance of effort - the ability to overcome setbacks as one progresses toward a higher-order end goal, and 2) consistency of interests – representing an individual's ability to remain focused on a singular higher-order end goal. One missing piece in the grit scale is a specific assessment of passion as separate dimension of grit despite its theoretical contribution to the trait (Jachimowicz, Wihler, Bailey, & Galinsky, 2018); as such, we consider passion to be a distinct component of grit as supported by other researchers in the field (e.g. Jachimowicz et al., 2018; Mueller, Wolfe, & Syed, 2017; Syed & Mueller, 2014). The development of scales to measure grit (e.g. Duckworth et al., 2007; Duckworth & Quinn, 2009) have led to a body of literature that indicates that higher levels of grit predict positive life outcomes, such as graduation from West Point (Duckworth et al., 2019), retention in various life commitments (Army Special Operations Forces, work, school, and marriage) (Eskreis-Winkler, Shulman, Beal, & Duckworth, 2014), entrepreneurial venture success (Mooradian et al., 2016; Mueller et al., 2017), higher academic performance (Pate et al., 2017), and well-being (Vainio & Daukantaite, 2016). These findings have played a role in catapulting grit's popularity in both research and the general population.

Similar to the literary writing that utilizes grit, the psychological literature argues that grit is paramount to one's ability to have strong resolve and character, and as such it is a worthy trait to both understand and develop. Duckworth (2016) argued that grit is not a fixed personality trait, rather it can be developed and honed over time. Duckworth stated, "...Some of the variation in grit in the population can be attributed to genetic factors, and the rest can be attributed to experience..." (p. 82). This leaves the question, that if grit is a fundamental personal characteristic for

displaying one's strength of character, then how does one actually develop grit?

In a qualitative study, Armstrong, van der Linger, Lourens, and Chen (2018), developed a model with six self-regulatory strategies for enhancing grit:

- 1) *Maintaining a Temporal Perspective*: Individuals should focus on future goals while celebrating the accomplishment of present tasks as part of the progression toward future goals.
- Perform Perpetual Evaluation: An individual should set high standards and continually look to be challenged.
- 3) *Motivational Orientation*: One should search for alignment of personal goals as well as alignment with team goals.
- 4) Strength and Resource Gathering: Know one's own strengths and display a willingness to gather the support in areas of weakness.
- 5) Systems Thinking: One should focus on developing capacities to break-down a challenge, while seeing the big picture.
- 6) *Framing*: Focus on the desire to succeed, while at the same time having the courage to fail.

Overall, developing into a gritty individual takes active recognition of one's higher-order end goals. This active recognition precedes an understanding of the connection between lower-order tasks and goals to the higher-order end goal, which is imperative when the lower-order goals fail and a new approach is required. Further, a gritty individual forges, over time, an unrelenting determination to

achieve their end goal and demonstrates courage and growth when faced with setbacks. In many ways, the setbacks serve as catalysts and reinforcement for a gritty individual's determination to reach a particular end goal. Ultimately, developing grit requires flexibility, continual evaluation of goals, higher-order thinking, and growth in the face of setbacks.

With this discussion of grit and the processes for developing grit, a related question becomes why is grit valuable and necessary for leaders in creating an environment where their values and actions align? We believe there are two reasons that grit is necessary for leading with character and resolve, which aides with this alignment. One, since gritty individuals operate with a clear understanding of what their higher-order end goal is, a gritty leader is more apt to clearly establish a higher-order end goal for the team or organization. Essentially, the gritty leader is able to paint a clear vision for followers as they work toward the pursuit of the mission of the team or organization. This clarity of an end goal enables gritty leaders to set the tone for how to respond when their teams are faced with setbacks or obstacles. The gritty leader does not let setbacks deter the focus on the end goal, but motivates as they forge ahead. His or her own actions serve as a representation of how the leader expects others to respond in the face of setbacks.

With this discussion of grit and the processes for developing grit, a related question becomes why is grit valuable and necessary for leaders in creating an environment where their values and actions align?

The second reason is that gritty leaders have a clear sense of identity (Duckworth, 2016). This sense of identity can over time become infused into the culture of an organization or team (Lee & Duckworth, 2018). For example, in her research on grit at the organizational level, Raver Luning (2019) found that when senior leaders displayed actions that aligned with hard-work, determination, and courage in the face of setbacks, organizational members collectively adopted those behaviors and then those characteristics, over time, became part of cultural identity of the organization. Essentially, since gritty leaders have a clear sense of their identity, they are well positioned to have a clearly established value-system. As a gritty individual who operates with strong resolve, the leader acts in a manner that aligns with his or her value-system, in turn setting the tone for all to follow.

Hardiness

Within the sports and business worlds especially, grit has recently become a more popular concept than hardiness, even though hardiness has a more robust academic history. There have been numerous studies on hardiness following Maddi (2002) and Kobasa's (1979) seminal work examining 837 mid-level and senior managers of a subsidiary company of AT&T, the Illinois Bell Telephone. The study found three factors that greatly contributed to the managers' ability to weather the daily grind of stress in their jobs: 1) they had a higher sense of commitment, 2) they were often optimistic and open to challenge, and 3) they also had a higher sense of control of their outcomes (Maddi, 2002). Similar to grit, these factors combine to the higher-order construct of hardiness, which is considered a personality trait. This combination of factors allows individuals to weather daily hardships over long periods of time, enhance performance, and have also been known to increase resilience to illness (Bartone, 2006; Bartone et al., 2008; Maddi, 2002; Maddi et al., 2012).

Hardiness as a personality trait has been shown to significantly aid in coping with high stress environments such as with military operations (Bartone, 2006), so much so that numerous efforts have been made to increase hardiness within organizations both in the military and in business with the aim to mitigate stressors and increase performance. The initial study of Illinois Bell Telephone in the late 1970s and the subsequent deregulation of AT&T resulted in the subsidiary company requesting the researchers' aid with the coping of the transition to a new telecommunications world (Maddi, 2002). The Hardiness Institute was formed to provide a 15-week session to managers for both the benefit of their own hardiness personality trait, as well as to enable the managers to encourage hardiness within their subordinates.

Organizations with high levels of stress and challenge have been particularly interested in the hardiness attribute for many years. For example, a study of West Point cadets in their first year of training found that hardiness was a significant predictor of performance during that year (Maddi et al., 2012). Additionally, students with higher levels of hardiness were found to have a greater ability to weather West Point's grueling first summer of training, sleep deprivation, and physical activity, as well as persist through the cognitive strain of heavy academic course loads. The study indicated that the efficiency of West Point's organizational mission of producing well-balanced leaders for the U.S. Army, was greatly enhanced with higher levels of hardiness.

Within the organization, hardiness also plays a role in enhancing key group dynamics that have well known links to organizational performance such as group cohesion and sensemaking. In a study of Norwegian Navy midshipmen (Bartone, Johnsen,

Eid, Brun, & Laberg, 2002), squads with higher levels of hardiness showed greater cohesion in an intense two-week training exercise. In addition, leaders with high levels of hardiness positively influenced their squad's performance during this period, allowed their subordinates to better deal with the stress in the event, and increased cohesion significantly over the two-week exercise. Bartone, Barry, and Armstrong (2009) argued that leaders play a key role in influencing the mental hardiness of their followers, which in-turn increases the resilience of the team and organization. Bartone et al. (2009) indicated "Leaders who are high in hardiness and understand the value of the kinds of frames they use for making sense of experience can encourage those around them to process stressful experiences in ways characteristic of high hardy persons" (p. 5). This in-turn can help the group shape how stressful an experience is, react to the experience in an appropriate manner, and ultimately move through the stressful experience in a positive and productive manner. Therefore, it can be said that at the team and organizational level, hardiness can play an important role in the success of the group.

Similarities And Differences Between Grit And Hardiness

Two pertinent questions that one might ask are if grit and hardiness are truly distinct traits and if distinct, is one of more value to leading with character than the other? Several studies have evaluated grit and hardiness as predictors of various life outcomes (Kelly, Matthews, & Bartone, 2014; Maddi, Matthews, Kelly, Villarreal, & White, 2012; Maddi, Erwin, Carmody, Villarreal, White, & Gundersen, 2013) and to assess if grit and hardiness are distinct constructs (Georgoulas-Sherry & Kelly, 2019). While the studies have revealed a positive correlation between grit and hardiness (Matthews, Panganiban, Wells, Wohleber, & Reinerman-Jones, 2019; Georgoulas-Sherry & Kelly, 2019), the two traits are generally considered distinct from one another. It can be said, however, that there is considerable overlap

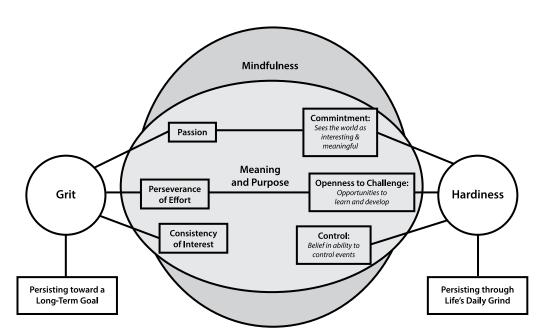


Figure 1 . The Symbiotic Relationship Between Grit and Hardiness

between grit and hardiness. As researchers that study grit and hardiness and also as practitioners that train others in the traits, we recognize the overlap, yet, emphasize the importance of building both into one's leadership skill-set. Figure 1 provides a visual depiction of similarities between grit and hardiness and an indication of the distinctions between the two traits.

Considering the similarities, grit and hardiness both fall under the umbrella of positive psychology (Maddi, 2006; Matthews, 2008). The most direct alignment between the two traits appears between the passion of grit and the commitment of hardiness, as well as the perseverance of effort dimension of grit and the openness to challenge aspect of hardiness. A gritty individual displays passion toward a particular

The perseverance of effort in grit is one's ability to persist through both minor and major obstacles as one works toward a specific end-goal, which requires a growth mindset in the face of obstacles.

life-goal which serves to provide purpose for that individual. Similarly, commitment represents one's ability to find meaning in the world (Maddi, 2002); it provides one with a sense of purpose (Eschleman, Bowling, & Alarcon, 2010). The perseverance of effort in grit is one's ability to persist through both minor and major obstacles as one works toward a specific endgoal, which requires a growth mindset in the face of obstacles. The openness to challenge in hardiness is an individual's ability to face obstacles head-on, learning and growing while overcoming those obstacles. In essence, these aspects of grit and hardiness provide one with an uncanny ability to push through seemingly insurmountable challenges, while at the same time

prevailing through daily obstacles with consistent energy. Essentially, the traits enable one to endure hardship on a daily basis over long periods of time, all while growing and learning.

Despite the similarities between grit and hardiness, there are clear distinctions between the constructs both from a theoretical and a practical standpoint. With grit, an emphasis is placed on a long-term goal, which acts as the driving force behind why an individual is able to persist past obstacles and maintain passion toward their long-term objective (Duckworth et al., 2007), represented in consistency of interest. Whereas with hardiness, emphasis is placed on maintaining a positive mindset as a method to maintain homeostasis when experiencing onerous events (Kelly et al., 2014),

represented in the component of control in hardiness. For example, one can be passionate about an activity, task, or job but if the individual's interest jumps easily to the next shiny object, the individual is not demonstrating grit. Hardiness also requires a persistent mindset to get through great hardship, or "the grind," for long periods of

time. However, the difference is that hardiness is not focused solely on one particular goal. It is an enduring personality trait that, in general, enables individuals to persist. Hardy individuals persist through the grind of life, while gritty individuals persist through the grind because of a focus toward a specific long-term goal.

Although grit and hardiness have distinct objectives, they both continuously operate as driving forces in how individuals' function, and how leaders motivate and propel teams and organizations. Grit and hardiness have a symbiotic relationship which are connected by two important mechanisms that permeate each of the traits' components. Underlying both grit and

hardiness are two foundational elements: 1) meaning and purpose, and 2) mindfulness. Meaning and purpose are the catalyst or flame that provides one with the ability to persist over short and long periods of time despite challenges and obstacles. Mindfulness is required and practiced by those with high degrees of grit and hardiness, which is what provides one with the ability to recover and maintain energy when faced with endless obstacles and adversity.

Meaning and purpose are essential to how grit and hardiness operate and when extended to an organizational level, are the foundation for the operations of any organization or team. For grit, meaning and purpose are what serve as the driver toward one's long-term goal. The intensity of one's meaning and purpose is what propels one to work through seemingly insurmountable tasks and weather the ups and downs. It is the individual's passion in their purpose that drives the person toward the long-term end goal. For example, the path to becoming a Navy SEAL is a long one. Just to get an opportunity at the initial training school, Basic Underwater Demolition/ SEAL (BUD/S), requires substantial long-term passion and perseverance in the Navy. If one's goal is simply to "be a SEAL," it is considerably more difficult to undergo the years of waiting for an opportunity to enter training. However, if one is driven by a higher meaning and purpose, such as working with a highcaliber team and/or serving one's country in a special way, those individuals are often found to endure and ultimately, are the ones who are more successful in BUD/S and beyond. Those individuals display the necessary ingredients from all of grit's components of passion, perseverance, and consistency of interests over years and even decades.

Meaning and purpose demonstrate the same importance for hardiness. As with grit's passion, the

commitment for hardiness requires a deep sense of purpose over time. Whereas grit is focused on a longterm goal, hardiness' commitment is to something broader, such as being a leader of character, an honest and good person, or simply someone that finishes what they start. Likewise, with openness to challenge in hardiness, the meaning and purpose foster one's sensemaking capabilities, helping one to recognize when challenges are indeed worth the effort. Without a sense of purpose, one could simply take on every challenge presented and quickly be led down deadend paths; meaning and purpose provide a compass to the "right" challenges. Additionally, the component of control in hardiness requires meaning and purpose in order to enhance one's self-efficacy and belief in one's ability to control his or her destiny. Overall, it can be said that meaning and purpose serves as an essential element to the sub-components of both grit and hardiness relative to one's ability to stay the course.

The other foundational element that is essential in both traits is mindfulness, "paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally" (Kabat-Zinn, 1994, p. 4). As with meaning and purpose, mindfulness is requisite in both grit and hardiness. In grit, mindfulness allows for one to remain passionate about a long-term objective despite setbacks. Mindfulness allows for one to focus on the moment and not become distracted by "what if" scenarios, which divert one from an intended course. A gritty person uses mindfulness to practice keeping moments simply as temporary moments, while maintaining a focus on the long-term goal. Mindfulness is an essential component of hardiness in the same way. Commitment and openness to challenge requires the presence of mind to be present in the moment; helping an individual to push through the daily grind by remembering that the present moment is fleeting and will pass. The element of control in hardiness involves

examining what is happening and why it is happening. The belief that one has some level of control in their outcomes requires a non-judgmental introspection that is found in mindfulness. Objectively looking at events as they happen enables a greater confidence in one's own control of their outcomes. As with meaning and purpose, mindfulness serves as a building block for the generation of one's grit and hardiness, helping to foster the traits in an individual.

Symbiosis occurs when the leader's grittiness is coupled with hardiness – the traits help the leader to fight through daily obstacles, while facing larger challenges with control and a positive mindset – all to achieve the mission of the organization or team.

The Symbiosis Of Grit And Hardiness For Leaders

As established, grit and hardiness, fostered by one's meaning and purpose and mindfulness, operate together, driving one to persist overtime and succeed in one's life goals. For leaders, it is necessary to understand how the traits work together both for one's own development (knowing oneself) as well as for leading one's teams (knowing others) and organizations. As a leader, remaining focused on a long-term goal despite setbacks (grit) and maintaining control while responding positively to challenge (hardiness) are necessary capabilities both for operating as a leader of character and for influencing one's teams and organizations. Ultimately, the symbiotic relationship between the two traits enables the leader to respond with resolve in the face of challenges, which in turn sets the tone for the rest of the organization.

Grit allows the leader to have a clear sense of the end-goal or mission of the organization, which enables the leader to paint a clear picture of what that mission is for their followers. The followers realize that the leader values the mission and why the mission is of value due to the passion that the leader displays toward achievement of the mission. Symbiosis occurs when the leader's grittiness is coupled with hardiness – the traits help the leader to fight through daily obstacles, while

facing larger challenges with control and a positive mindset – all to achieve the mission of the organization or team. Throughout, the leader has a clear sense of who he or she is and is resolute in that knowledge. As such, the leader is well positioned to make decisions in which his or her own values and actions align. The leader sets the tone for those within the organization to respond to both daily as well as catastrophic challenges with strength, grace, and determination

to persist toward both individual and shared goals of the followers. Moreover, the grit and hardiness of the leader can have a trickle-down effect to the followers, at least within the setting of the organization, helping followers to respond with strength and resolve to the obstacles that they face. Over time, these values can become infused as part of the value-system of the organization, the cultural identity of the organization.

Developing Grit And Hardiness

In effort to develop one's grit and hardiness, the first step is to actively recognize what one values; identify what is meaningful. This can be done by reflecting on personal values and what captures one's interest. Duckworth (2016) argued that interest is the first step in developing grit. Jachimowicz, Wihler, Bailey, and Galinsky (2018) expanded on this indicating that grit requires passionate interest in a particular goal. Similarly, with hardiness, one must recognize what

one finds meaningful in order to demonstrate the commitment component of hardiness (Maddi, 2002). Once one has actively recognized what is meaningful, the second step is to identify the driving forces in one's life, one's purpose. To identify one's purpose:

- 1) Write a personal purpose statement.
- Align the purpose statement with what one finds to be meaningful.
- 3) Keep the purpose statement at the forefront of how one operates. For example, print a copy and carry it in one's wallet or post it in one's office.

This identification of what one values and one's driving life forces helps to actively recognize an individual's meaning and purpose, which is the catalyst for the development of grit and hardiness.

The third step in developing grit and hardiness is to learn the art of mindfulness. Mindfulness allows one to be less reactive to difficult experience (Germer, 2013). As a foundational element of grit and hardiness, an individual must learn how to practice mindfulness and in-turn, utilize mindfulness in one's daily life. To practice mindfulness, it can help to ask reflective questions (Germer, 2013), such as "How do I feel about this situation?" or "This event generates what thoughts in me?" An individual should focus on remaining in the present moment. For example, focus on remaining present in everyday conversations; recognize when the mind begins to wander and bring it back to the present conversation and event. Each time one brings their attention back to the present, it is strengthening the "mindfulness muscles." Developing mindfulness will serve as an underpinning for one's ability to persevere through both major and minor obstacles, which are aspects of grit and hardiness.

With the foundation of meaning and purpose well-established and strategies for mindfulness developed, an on-going step is to continually self-evaluate. During self-evaluation, one should assess if they are maintaining their desired standards and pushing themselves to grow and develop. Armstrong et al. (2018) indicated that perpetual evaluation is a self-regulatory strategy for enhancing grit. It can be argued that this too serves as a strategy for enhancing hardiness, as it should serve to enhance an individual's openness to challenge, a component of hardiness. The perpetual self-evaluation serves as an honesty check for an individual. It helps an individual to refocus if they momentarily lose sight of their meaning and purpose, which undergirds one's grit and hardiness.

Conclusion

It can be argued that there are an abundance of personality traits and attributes that leaders must develop and hone in an effort to be considered a leader. Grit and hardiness serve as two of those quintessential characteristics for leading with character and resolve, both for their own internal benefits to the leader and the role that grit and hardiness can play in operational effectiveness for teams and organizations. Grit considered passion, perseverance, and consistent interest toward a long-term goal (Duckworth et al., 2007), and hardiness - considered commitment, openness to challenge, and control (Kobasa, 1979), have a symbiotic relationship which helps an individual persist through life's challenges with determination and grace. For a leader, the two traits operate together to help establish a clear sense of personal identity and remain positively aligned with that identity despite challenges. In essence, the leader's grit and hardiness allow the leader to display strength of character and resolve when faced with adversity. Extended to the organizational level, the grit of the leader can help the leader to establish a clear sense of identity for

the organization centered around the organization's mission, while hardiness operates to help followers to remain positive in the face of both minor and major obstacles as the team collectively works toward achievement of shared goals and ultimately the mission of the organization.

• • •

References

- Alger, H. (1892). Grit. New York, NY: New York Hurst & Company Publishers.
- Armstrong, A., van der Lingen, E., Lourens, R., & Chen, J. (2018). Towards a new model of grit within a cognitive-affective framework of self-regulation. *South African Journal of Business Management*, 49(1), a13. doi: 10.4102/sajbm.v49i1.13
- Bartone, P. T. (1999). Hardiness protects against war-related stress in Army Reserve forces. Consulting Psychology Journal: Practice and Research, 51(2), 72 - 82. doi: 10.1037/1061-4087.51.2.72
- Bartone, P. T. (2006). Resilience under military operational stress: Can leaders influence hardiness? Military Psychology, 18(Suppl.), S131 - S148. doi: 10.1207/s15327876mp1803s_10
- Bartone, P. T., Barry, C. L., & Armstrong, R. E. (2009). To build resilience: Leader influence on mental hardiness. *Defense Horizons*, 69, 1 - 8.
- Bartone, P. T., Eid, J., Johnsen, B. H., Laberg, C., & Snook, S. A. (2009). Big five personality factors, hardiness, and social judgement as predictors of leadership performance. *Leadership & Organizational Development Journal*, 30(6), 498 521. doi: 10.1108/01437730910981908
- Bartone, P. T., Johnsen, B. H., Eid, J., Brun, W., & Laberg, J. C. (2002). Factors influencing small-unit cohesion in Norwegian Navy Officer Cadets. *Military Psychology, 14*(1), 1 22. doi: 10.1207/S15327876MP1401 01
- Bartone, P. T., Roland, R. R., Picano, J., & Williams, T. J. (2008). Psychological hardiness predicts success in US Army Special Forces candidates. *International Journal of Selection and Assessment, 16*(1), 78 81. doi: 10.1111/j.1468-2389.2008.00412.x
- Caza, A., & Posner, B. Z. (2019). How and when does grit influence leaders' behavior? *Leadership & Organizational Development Journal*, 40(1). 124 134. doi: 10.1108/LODJ-06-2018-0209

- Daspit, J., Tillman, C. J., Boyd, N. G., & Mckee, V. (2013). Crossfunctional team effectiveness: An examination of internal team environment, shared leadership, and cohesion influences. *Team Performance Management*, 19(1/2), 34 – 56. doi: 10.1108/13527591311312088
- Dolan, C. A., & Adler, A. B. (2006). Military hardiness as a buffer of psychological health on return from deployment. Military Medicine, 171(2), 93 98. doi: 10.7205/MILMED.171.2.93
- Duckworth, A. L. (2016). Grit: The power of passion and perseverance. New York, NY: Scribner.
- Duckworth, A. L., & Gross, J. J. (2014). Self-control and grit: Related but separable determinants of success. *Current Directions of Psychological Science*, 23(5), 319 - 325. doi: 10.1177/0963721414541462
- Duckworth, A. L., Peterson, C., Matthews, M. D., & Kelly, D. R. (2007). Grit: Perseverance and passion for long-term goals. Journal of Personality and Social Psychology, 92(6), 1087 - 1101. doi: 10.1037/0022-3514.92.6.1087
- Duckworth, A. L., & Quinn, P. D., (2009). Development and validation of the short grit scale (Grit-S). *Journal of Personality Assessment*, 91(2), 166 - 174. doi: 10.1080/00223890802634290
- Duckworth, A. L., Quirk, A., Gallop, R., Hoyle, R. H., Kelly, D. R., & Matthews, M. D. (2019). Cognitive and noncognitive predictors of success. *Proceedings of the National Academy of Sciences*, 116(47), 23499 23504. doi: 10.1073/pnas.1910510116
- Eid, J., Johnsen, B. H., Bartone, P. T., & Nissestad, O. A. (2007). Growing transformational leaders: Exploring the role of personality hardiness. *Leadership & Organizational Development Journal*, 29(1), 4 - 23. doi: 10.1108/01437730810845270
- Eschleman, K. J., Bowling, N. A., & Alarcon, G. M. (2010). A metaanalytic examination of hardiness. *International Journal of Stress Management*, 17(4), 277 - 304. doi: 10.1037/a0020476
- Eskreis-Winkler, L., Shulman, E. P., Beal, S. A., & Duckworth, A. L. (2014). The grit effect: Predicting retention in the military, the workplace, school, and marriage. Frontiers in Psychology, 5(36), 1 12. doi: 10.3389/fpsyg.2014.00036
- Georgoulas-Sherry, V., & Kelly, D. R. (2019). Resilience, grit, hardiness: Determining the relationship amongst these constructs through structural equation modeling techniques. *Journal of Positive Psychology & Wellbeing*, 3(2), 1 12.
- Germer C. K. (2013). Mindfulness: What is it? What does it matter? In C. K. Germer, R. D. Siegel, & P. R. Fulton (Eds.), Mindfulness and Psychotherapy (pp. 3 - 35). New York, NY: The Guilford Press.
- Hawthorne, N. (1863). Up the Thames. *The Atlantic monthly: A magazine of literature, art, and politics*, 11, 598 614.

- Jachimowicz, J. M., Wihler, A., Bailey, E. R., & Galinsky, A. D. (2018). Why grit requires perseverance and passion to positively predict performance. PNAS, 115(40), 9980 - 9985. doi: 10.1073/ pnas.1803561115
- Kabat-Zinn, J. (1994). Wherever you go, there you are: Mindfulness meditation in everyday life. New York, NY: Hyperion Books.
- Kelly, D. R., Matthews, M. D., & Bartone, P. T. (2014). Grit and hardiness as predictors of performance among West Point Cadets. *Military Psychology*, 26(4), 327 - 342. doi: 10.1037/mil0000050
- Kobasa, S. C. (1979). Stressful life events, personality, and health: An inquiry into hardiness. *Journal of Personality and Social Psychology*, 37, 1 - 11. doi: 10.1037/0022-3514.37.1.1
- Lee, T. H., & Duckworth, A. L. (2018). Organizational grit. Harvard Business Review, 96(5), 98 - 105.
- Lehrke, J. P. (2014). A cohesion model to assess military arbitration of revolutions. *Armed Forces & Society*, 40(1), 146 - 167. doi: 10.1177/0095327X12459851
- Maddi, S. R. (2002). The story of hardiness: Twenty years of theorizing, research, and practice. *Consulting Psychology Journal*. 54. 173 - 185. doi: 10.1037/1061-4087.54.3.173
- Maddi, S. R., Erwin, L. M., Carmody, C. L., Villarreal, B. J., White, M., & Gundersen, K. K. (2013). Relationship of hardiness, grit, and emotional intelligence to internet addiction, excessive consumer spending, and gambling. *The Journal of Positive Psychology*, 8(2), 128 - 134. doi: 10.1080/17439760.2012.758306
- Maddi, S. R., Matthews, M. D., Kelly, D. R., Villarreal, B., & White, M. (2012). The role of hardiness and grit in predicting performance and retention of USMA cadets. *Military Psychology*, 24(1), 19 - 28. doi: 10.1080/08995605.2012.639672
- Matthews, M. D. (2008). Toward a positive military psychology. *Military Psychology*, 20(4), 289 298. doi: 10.1080/08995600802345246
- Matthews, G., Panganiban, A. R. Wells, A., Wohleber, R. W., & Reinerman-Jones, L. E. (2019). Metacognition, hardiness, and grit as resilience factors in unmanned aerial systems (UAS) operations: A simulation study. Frontiers in Psychology, 10(Article 640), 1 - 17. doi: 10.3389/fpsyg.2019.00640
- Mooradian, T., Matzler, K., Uzelac, B., & Bauer, F. (2016).Perspiration and inspiration: Grit and innovativeness as antecedents of entrepreneurial success. *Journal of Economic Psychology*, 56, 232 242. doi: 10.1016/j.joep.2016.08.001
- Mueller, B. A., Wolfe, M. T., & Syed, I. (2017). Passion and grit: An exploration of the pathways leading to venture success. *Journal of Business Venturing*, 32(3), 260 - 279. doi: 10.1016/j. jbusvent.2017.02.001

- Pate, A. N., Payakachat, N., Harrell, T. K., Pate, K. A., Caldwell, D. J., & Franks, A. M. (2017). Measurement of grit and correlation to student pharmacist academic performance. *American Journal of Pharmacy Education*, 81(6), a105. doi: 10.5688/ajpe816105
- Raver Luning, C. K., (2019). Exploring organizational grit in midsized enterprises in the Mid-Atlantic region: A multiple case study (Doctoral dissertation). Retrieved from ProQuest Dissertation and Theses. (22588533).
- Ris, E. W. (2015). Grit: A short history of a useful concept. *Journal of Educational Controversy*, 10(1), 1 18.
- Schimschal, S. E., & Lomas, T. (2019). Gritty leaders: The impact of grit on positive leadership capacity. *Psychological Reports*, 122(4), 1449 - 1470. doi: 10.1177/0033294118785547
- Syed, I., & Mueller, B. (2014). Finding the passion to persevere: An exploration of the mechanisms by which passion fuels entrepreneurial grit. Frontiers of Entrepreneurship Research, 34(6), 1-14.
- Vainio, M. M., & Daukantaite, D. (2016). Grit and different aspects of well-being: Direct and indirect relationships via sense of coherence and authenticity. *Journal of Happiness Studies*, 17, 2119 - 2147. doi: 10.1007/s10902-015-9688-7
- Westman, M. (1990). The relationship between stress and performance: The moderating effect of hardiness. *Journal of Human Performance*, 3(3), 141 155. doi: 10.1207/s15327043hup0303 1