
Social Resilience

The Value of Social Fitness With an Application to the Military

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Resilience has been regarded narrowly as a quintessential individual property by most investigators. Social resilience, however, is inherently a multilevel construct, revealed by capacities of individuals, but also groups, to foster, engage in, and sustain positive social relationships and to endure and recover from stressors and social isolation. Emergent levels of organization, ranging from dyads, families, and groups to cities, civilizations, and international alliances have long been apparent in human existence, but identifying the features of individuals, relationships, and group structures and norms that promote social resilience—and determining effective interventions to build social resilience—represent some of the most important challenges facing the military as well as contemporary behavioral science. We identify nine personal resources that foster social resilience, and we describe an educational, computer-based program that builds on these resources in an effort to improve the social resilience among troops in the U.S. Army. Data from this program should provide valuable evidence regarding the challenge of building social resilience.

Keywords: resilience, social resilience, military, group processes, cooperation

In our Scripture, it is written that when you do not have hope, you look for it in the face of your friend.

—Gazan man quoted by Gordon (2009)

On January 3, 1864, the *Grafton*, an English schooner piloted by Captain Thomas Musgrave, was struck by a hurricane that broke its anchor chains and sunk it on the rocky beach on the southern end of Auckland Island. The captain and his crew of four men made it to shore but not to safety. Auckland Island is one of the most inhospitable places on earth, with freezing rain, howling winds, and little to eat year round.

On May 10th of the same year, the *Invercauld*, an Aberdeen clipper piloted by Captain George Dalgarno, was struck by a heavy gale and driven between two steep cliffs on the northern side of Auckland Island and sunk. Nineteen of the twenty five men aboard the *Invercauld* made it ashore, unaware of the existence of the other crew despite their spending more than a year together on the desolate and inhospitable island.

The survivors of the *Grafton* abandoned formalities from the past and adopted group problem solving and

decision making, whereas the survivors of the *Invercauld* retained the formal hierarchy that served them so well on the high seas. Although the challenges to survive were quite similar, the outcomes for these two crews could not have been more different. The crew of the *Grafton* worked together to find food and water, consulted with and looked after one another, constructed shelter, and contributed to their rescue by building a vessel and setting out to sea where they were found by Captain Cross of the *Flying Scud*. The crew of the *Invercauld*, on the other hand, fought and splintered, lost 16 of the 19 to cold or hunger, descended into cannibalism, and was found only by chance. The *Julian*, a Peruvian ship, had sprung a leak off the island and set a boat ashore to seek assistance. There they found and rescued the three remaining crew members of the *Invercauld* (Druett, 2007).¹

We may aspire to be self-sufficient and celebrate our individual achievements, but our remarkable accomplishments as a species are attributable to our collective action, not our individual might. Human evolutionary heritage has endowed us with the capacity to feel the pain of social isolation and the rewards of social connection. Importantly, it has also endowed us with the capacity to feel others' social pain and the compassion to care for the sick and the elderly far beyond their reproductive or instrumental utility. Social species generally do not fare well when forced to live solitary lives, and we are certainly no exception. Humans, born to the longest period of utter dependency of any species and dependent on conspecifics across the life span to survive and prosper (Cacioppo & Patrick, 2008; Hartup & Stevens, 1997), do not fare well when living solitary lives or when it simply feels that way. Social isolation is associated not only with lower subjective well-being (Berscheid, 1985; Burt, 1986; Myers & Diener, 1995) but

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¹ We thank William Patrick for suggesting this example of social resilience.



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with broad-based morbidity and mortality (Cacioppo & Hawkley, 2009; House, Landis, & Umberson, 1988).

Humans are a social species, and by definition social species create emergent structures that extend beyond the individual. Whales swim in pods, wolves hunt in packs, penguins share warmth in huddles, fish swim in schools, and birds migrate in flocks. The emergent social structures created by humans are more abstract, flexible, and variable than those in other species. These structures range from dyads and families to nations, international alliances, and virtual global communities. Whereas genetic similarity likely has an impact on the behavior of all social species, ideological similarity (e.g., brothers in arms, an army of one) has a uniquely powerful impact on the behavior of our species. These emergent organizations are not all created equal, however, and differences in the properties of these superorganismal structures are only partly a function of the characteristics of the individuals who constitute these structures. The captains and crews of the *Grafton* and the *Invercauld* developed different governance structures and group norms when confronted with conditions that to solitary individuals meant likely death. The captain and crew of the *Grafton* eliminated the formal hierarchy and norms that functioned well at sea in favor of group consultation and cohesion in the face of these new and dire challenges. They instead created a culture in which everyone's survival was tied to the survival of one another. These norms encouraged individuals to work for the good of the group rather than for themselves at the expense of the group because they believed their contributions would be repaid in kind, a social rule promoting cooperation and effective collective action: what Bowles (2006) termed *network reciprocity*. The captain and crew of the *Invercauld*, in contrast, maintained the hierarchical structure and privileges

that existed at sea even though the challenges faced on the island demanded a more flexible authority structure. The behaviors of the crew were guided by individual self-interests rather than group interests, which resulted in a high rate of mortality. In short, the social structures of these two groups differed in their resilience, leading to survival and rescue for one crew and disastrous outcomes for the other.

What Is Social Resilience?

Social resilience is the capacity to foster, engage in, and sustain positive relationships and to endure and recover from life stressors and social isolation. Its unique signature is the transformation of adversity into personal, relational, and collective growth through strengthening existing social engagements, and developing new relationships, with creative collective actions. As noted in the companion articles in this issue, individual resilience emphasizes an individual's capacity to find opportunities in tragedy and to turn adversity to advantage. *Social* resilience emphasizes an individual's capacity to work with others to achieve these endpoints and, consequently, the group's capacity to do so as well. Social resilience, unlike other forms of personal resilience, therefore is intrinsically multilevel and includes an individual's (a) characteristic ways of relating (e.g., agreeableness, trustworthiness, fairness; compassion, humility, generosity, openness); (b) interpersonal resources and capacities (e.g., sharing, attentive listening, perceiving others accurately and empathically, communicating care and respect for others, responsiveness to the needs of others, compassion for and forgiveness of others); and (c) collective resources and capacities (e.g., group identity, centrality, cohesiveness, tolerance, openness, rules for governance).

Social resilience also modulates the development and expression of individual resilience. For instance, social resilience leads to growth through enhancing relationships, meaning-making, social engagement, and coordinated social responses to challenging situations. Of course, other forms of resilience—for example, emotional or spiritual resilience—may also strengthen and preserve, but social resilience emphasizes the role of connections with other individuals, groups, and large collectives as a means of fostering adaptation through new learning and growth. Importantly, social resilience does not imply monolithic pressures toward uniformity nor an uncritically rosy view of the joys of relating. Both fair competition and cooperation, for instance, can contribute to resilience. What is unique about social resilience is an appreciation for the key contributions to human welfare of coordinated social activity and feelings of connectedness and “we-ness.” In other words, when people work together toward their common benefit, taking into account their differences and seeking to profit from them while recognizing and valuing the bonds that link them to each other, their collective outcomes typically transcend those that would be obtained from more solitary activities and promote the development and expression of individual resilience.



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The significance of social groups in the design of human societies is highlighted by multilevel selection theory (Wilson, Van Vugt, & O’Gorman, 2008). This theory proposes that “early human evolution represented a major transition, turning our ancestral groups into the primate equivalent of bodies or beehives” in which well-functioning social groups had significant adaptive advantages over “mere individuals and less coordinated groups” (Wilson et al., 2008, p. 7). Attributes such as the empathic response (DeWaal, 2009), which enhanced participation and coordination in social groups, thereby became part of the human genome. Consistent with this thesis, extensive evidence demonstrates that relationships exert pervasive influences on human behavior and development throughout life (Reis, Collins, & Berscheid, 2000). The same may be said of groups and collectives.

Social resilience applies to nearly all forms of human association, from dyads of all types, to families, small groups, neighborhoods, communities, and cultures. Although social resilience is most commonly studied in the context of smaller units (e.g., dyadic relationships within families), the construct is intended to apply across all of the interpersonal groupings that are relevant to responding effectively to contemporary challenges and opportunities. For example, when Sarason (1974) wrote of the “sense of community,” he defined a type of social relationship characterized by weak ties among persons held together by mutual purpose and a shared social identity. From relationships with co-workers to mechanics to neighbors, these weak ties serve a variety of important social functions (Blau & Fingerman, 2009). With urbanization, globalization, and modern technology, large-scale social groups and institutions affect individual well-being as never before, but the human need to have confidants and to connect with

other individuals remains important for personal resilience (Cacioppo & Patrick, 2008) and for the resilience of the group (Cacioppo, Fowler, & Christakis, 2009).

How Does Social Resilience Operate?

Given the centrality of social relations to human evolution, it is perhaps not surprising that the social situations people face in everyday life are complex and multifaceted (Bugental, 2000; Kelley et al., 2003). As a consequence, numerous specific attributes may serve as resources that facilitate social resilience. Although a detailed delineation is beyond the scope of this article, it is instructive to consider several broad constructs that appear repeatedly in studies of social resilience. A selective list is shown and defined in Table 1. Each construct represents an attribute measurable as a property of individuals but founded, furthered, and sustained by past and present social relationships that foster resilience-enhancing behavior. Thus, when we inquire of the social fitness of individuals, we also are asking about the structure of that person’s social life: Each personal attribute is nested within relationships or groups in the sense that interaction with others elicits and supports the expression of that attribute.

Consider the capacity and motivation to perceive others accurately and empathically. One’s ability to see others from the same lens with which one views oneself, and to respond supportively to them, is a cornerstone of social relations. To be socially resilient, one needs to understand how other persons perceive the diverse experiences and situations of life, because successful coordination of activity requires shared perspectives and coordinated goals. Also, heightened awareness of and concern for the needs of another person promotes positive interpersonal bonds. Of course, there are numerous other personal resources beyond those listed in Table 1 that advance social resilience.

Although many resilience-enhancing qualities reside within individuals, it is valuable to recognize that they are effective primarily when mutual and reciprocal, and when social tasks and situations encourage their expression. Resilience resources contribute to social resilience in a manner that is both interactive and iterative—in other words, they are constructive because one interacting partner’s display of resilient behaviors fosters complementary behaviors by interacting others, and this process then unfolds repeatedly through ongoing interaction. Thus, ongoing virtuous cycles of resilient behaviors enhance problem solving and the maintenance and growth of relationships and groups, whereas downward spirals of nonresilient behavior lead to poor problem resolution and the deterioration of relationships and groups.

Social resilience depends on more than the personal attributes of interacting persons. The architecture of social situations is also important, as the history of social psychological research makes plainly evident (e.g., Janis, 1972). Situations can be structured in ways that encourage or inhibit the emergence of resilience-fostering thoughts, feelings, and behaviors. For example, the cooperative governance structure of the *Grafton* made it possible for prosocial emotions and behavior to emerge, fostering trust and



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collaborative problem solving and increasing the frequency of interactions that promoted acceptance and bonding among the survivors. Self-serving or antisocial behaviors, when and if they occurred, would be extinguished. In contrast, the rigid hierarchy of the *Invercauld* discouraged prosocial behavior, inhibited empathy, caring, and shared problem-solving, and made it unlikely that a sense of “we-ness” would emerge. Social resilience, therefore, is a *multilevel construct* because it represents a feature of groups as well as a feature of the individuals in the group.

Building Social Resilience

Embarking on programs to enhance social resilience means departing from the usual ways of thinking about the problems of people in three fundamental ways. First, the term itself emphasizes strengths that encourage patterns of positive adaptation rather than sources of vulnerability that place people at risk (Masten & Wright, 2009). In this way, resilience research shares some of the features of positive psychology (Seligman, Steen, Park, & Peterson, 2005) but without the risk of overattention to the positive when put into practice. Second, stressful experiences are inherently tied to the formulation, so that interventions to promote resilience need to be designed with specific sources of adversity in mind and with attention to the nonlinear dynamics of coping with and adaptation to that adversity (Zautra, Hall, & Murray, 2008). Third, the “social” in social resilience widens the angle of the researcher’s lens from a focus on individual capacities to the examination of ways to build more adaptive social ecologies for people, groups, organizations, and communities.

As we have noted, this reorientation to the social systems that underlie individual fitness is by necessity multilevel and calls for interventions that extend the met-

aphor of personal fitness to adaptive relationships among peoples and the governance of groups. Indeed, one of the outstanding features of resilience is that it can be thought of as a systemic process (or processes) inherent in virtually any type of organized entity, from a simple biological system to a person, an organization, a neighborhood, a community, a city, a state, or even a nation (Zautra & Reich, 2011). In essence, social resilience represents a paradigmatic shift in our ways of thinking about people and their problems and thus requires a fresh look at the design of interventions to promote the kinds of qualities that increase the likelihood of resilient outcomes.

How might one apply these ideas in an intervention program? We use the idea of trust to illustrate how this might be done generally (see Table 2). We then address specifically how social resilience has been implemented thus far in the U.S. Army’s Comprehensive Soldier Fitness program.

At the level of neurophysiology, researchers target oxytocin and various mechanisms of social reward such as dopamine and endorphin receptor densities, and they may inspect the size and integrative signaling of the anterior insula and cingulate, the amygdala, and prefrontal cortex (e.g., Uchino, Cacioppo, & Kiecolt-Glaser, 1996; Uvnäs-Moberg, Arn, & Magnusson, 2005). Clinicians may inquire of the capacities of these neural systems to deliver signaling that provides for the foundation for social relatedness, and empathy, and may review pharmaceutical alternatives to treat deficiencies. These approaches have value, but alone, they miss the broader vision needed to advance social resilience. Personality assessments would focus on attention to socioemotional intelligence attributes such as self–other awareness and perspective taking and also attributes of secure attachment such as empathy, generosity, social connection, and intimacy, as shown in Table 1 (Simpson, 2007). Therapeutic and other instructional forms of intervention such as life coaching (Hart, Blattner, & Leipsic, 2001) and seminars could advance individuals’ capacities for trust, but again, these approaches do not directly attend to the relationships themselves that give rise to trust and distrust.

Small units, whether in combat, in the office, or at home, represent social entities with system dynamics that may encourage or discourage trust among their members. Acceptance of diversity, mutuality, sharing of resources, commitment, and generativity are some of the attributes of small groups with a high trust quotient. A social network analysis of these small groups provides the basis for an understanding of communication gaps and sources of misunderstanding but also the unique strengths of strong ties within groups that can facilitate the growth of social fitness (Reis et al., 2000). Processes and patterns of relationship are the focus, with attention to the positive as well as the problematic in the assessment and advocacy for growth and advancement. For example, “forgiveness” methods have been advocated for use with families to aid recovery and release constraints on the positive feelings that family members with a history of troubled relations still may have

Table 1
Nine Personal Resources That Foster Social Resilience

Resource	Definition
Capacity and motivation to perceive others accurately and empathically	To be socially resilient, one needs to understand the diverse experiences and perceptions of other persons from their perspective and to supportively engage those understandings in a way that promotes bonding and coordinated activity.
Feeling connected to other individuals and collectives	Acceptance by stable, positively valenced relationships and groups fosters well-being, whereas social exclusion, or ostracism, has deleterious effects on health and well-being.
Communicating caring and respect to others	Acceptance is communicated to others by responsive acts that signal concern for their well-being and understanding and validation of them as individuals. Because reciprocity norms are ubiquitous in social life, communicating concern and respect for others is likely to foster responsive behavior on their part.
Perceiving others' regard for the self	Recognizing (or slightly overestimating) others' regard for the self promotes connections with others. Underestimates of one's standing in the eyes of others—as is typically the case for chronically lonely, shy, socially anxious, low-self-esteem, or anxiously attached individuals—often leads to defensively self-protective behaviors that can create further distance from others.
Values that promote the welfare of self and others	Values such as benevolence (concern for others with whom one has frequent contact) and universalism (concern for humanity) facilitate prosocial cognition, motivation, and action, such as altruism, tolerance, cooperation, empathy, and trust. These values complement rather than contradict healthy self-interest.
Ability to respond appropriately and contingently to social problems	Socially resilient persons recognize that many problems are inherently social: Such problems require appreciation of the nature of one's interdependent situation, and their solution depends on successful coordination of information and action between self and others. Thus, socially resilient persons promote constructive, team-oriented problem-solving strategies while avoiding individually focused strategies and social pressures that stifle open communication.
Expressing social emotions appropriately and effectively	Social resilience allows people to express social emotions such as gratitude, compassion, jealousy, and loneliness in constructive ways. It also promotes appropriate responses to others' displays of social emotions, through such responses as sympathy, forgiveness, and respect.
Trust	Trust refers to the belief that others can be relied upon and to the willingness to act on the assumption of the other's benevolence. When people trust, they may open themselves to potential exploitation, but more important, they signal their constructive intent to others, thereby inviting cooperation and mutually beneficial actions. Socially resilient people are neither insufficiently nor uncritically trusting; rather, their trust tends to be situationally contingent (which includes prior experience with the same persons).
Tolerance and openness	Socially resilient individuals value diverse perspectives and recognize that many tasks require coordination among persons with differing backgrounds, values, and priorities. Social resilience implies not merely acceptance of diversity but the intention to incorporate diverse perspectives into group activity. Nonresilient persons seek to eliminate diversity by excluding individuals who differ or by accentuating pressures toward uniformity.

toward one another (e.g., McCullough, Pargament, & Thoresen, 2000).

Large units, such as neighborhoods, communities, and combat battalions in the armed forces, defined both by place and mutual interests provide yet another level for assessment and possible intervention to further social fitness. Here, the focus is on furthering the expansion of

social capital and strengthening connectivity by the reorganization of social exchange (Kretzmann & McKnight, 1993) and the development of a shared social identity that marks others as ingroup members. Relevant to trust at this level are concepts such as strength of collaborative ties, reciprocity, fairness in the distribution of resources, impartiality in the delivery of justice, and wise and compassion-

Table 2
Enhancement of Trust Across Multiple Levels of Analysis

Level of analysis	Sample constructs	Illustrative assessment/intervention approaches
Neurophysiology	Neurochemistry: oxytocin, dopamine, endorphin receptor density Neurological substrates: anterior insula/cingulate, amygdala	Assessment of neurophysiological capacity for positive social relations Pharmacological treatment
Individual	Interpersonal awareness, perspective-taking, connection, generosity, and empathy	Assessment of emotional intelligence Training in empathy, social awareness, social skills, and attention to relationship strengths
Families/small combat units	Acceptance of the diversity of life-style choices, mutuality, sharing of resources, generativity	Family interaction and social network analyses Family therapy to resolve conflicts and restore mutuality Social interventions to enhance communication Diversity training to foster inclusion and reduce isolation
Communities/battalions	Collaborative ties, reciprocity, fairness, justice, impartiality, leadership	Assessment of social capital, distribution of resources, diversity Interventions focused on group identity, strength-based initiatives, and grass-roots collaboration fostering community development and sustainable and inclusive social networks

ate leadership. These qualities are thought to describe the amount of social capital available to develop and sustain communities through adversity (Coleman, 1990; Klinenberg, 1999; Putnam, Felstein, & Cohen, 2003). One important difference between military and civilian communities, for example, the battalion versus a neighborhood, is that members of combat units migrate in and out more quickly yet share a stronger social identity and unified sense of purpose compared with other groups. The transient nature of these groups presents a special challenge to creating social resilience. At the same time, the common collective identity presents a special opportunity. In the military, leadership training, promotion of values of fairness and social responsibility throughout, emphasis on the valued social identity they share, and close attention to military discipline and hierarchies promote a coherent sense of community. The new attention to resilience training in the Army is an example of system-wide reform aimed at providing a greater understanding of the fundamental ingredients of a successful military experience, getting beyond survivorship and individual advancement, and including camaraderie and good stewardship (Hames, 2009). The outcome of those efforts will depend, of course, on implementation of assessment and interventions on systemic influences as well as the training of recruits.

There are a number of examples of community approaches to social resilience. In the Experience Corps (Fried et al., 2004), retired senior citizens help young children within inner-city schools. The seniors are provided a way to participate meaningfully in bettering the lives of children in their community. In turn, the children have a surrogate, caring grandparent who watches over them dur-

ing part of the school day. The Health in a New Key program (St. Luke's Health Initiatives, 2008), the Healthy Communities Initiatives by the World Health Organization (1997), as well as the National Civic League's All-American Cities awards and its development of the Civic Index (National Civic League, 1999) all reformulate health as the presence of social strengths to aid in recovery from illness and sustain well-being.

Family therapists recognized long ago that the restoration of hope in social units does not succeed through exclusive attention to alleviation of psychological distress from ongoing conflicts; it is also critical to broaden the family's perspective on the sources of social goods within the family in spite of its troubles (e.g., Dattilio, 2005; Minuchin, Lee, & Simon, 1996). On a broader scale, social connectedness and cohesion are linked to greater vitality and stability in communities (Langdon, 1997), and indicators of social capital have been associated with beneficial health outcomes (Kawachi, Kennedy, Lochner, & Prothrow-Stith, 1997; Veenstra et al., 2005). In contrast, inequality and prejudicial treatment are associated with poorer health and life expectancy (Mays, Cochran, & Barnes, 2007).

Social Resilience in the Comprehensive Soldier Fitness Program

The social resilience component of the Comprehensive Soldier Fitness program includes four 15-minute modules developed on the nine personal resources outlined in Table 1. Although each module draws on more than one of the resources in Table 1, each module was designed to stimulate an awareness of and an appreciation for one or more

specific personal resources. For instance, the first module features several personal resources, including “feeling connected to other individuals and to collectives” (e.g., a group, squad, or team), “perceiving others accurately and empathically,” and “adopting values that promote the welfare of self and others.” The concept of social resilience is introduced, the soldier’s focus on himself or herself is addressed, and the soldier is refocused on his or her role as a member of a larger team, going from “me” to “we” (a theme also encountered in the social awareness effects of spiritual resilience, as discussed by Pargament and Sweeney, 2011, this issue). Connections between social resilience and the Army’s seven core values (loyalty, duty, respect, selfless service, honor, integrity, and personal courage) are detailed at the individual and unit levels of organization, and how these connections can increase social resilience and advance group outcomes are noted. The point is made that soldiers are more likely to fight effectively and adapt to the hardships and challenges they will confront if they are more inclusive about those around them—their team—rather than simply considering themselves.

One obstacle to social resilience is viewing others as different from oneself and, therefore, as outgroup members who represent a threat rather than a resource. The second module addresses this obstacle and illustrates how differences among the members of a squad or team can make that group stronger, more adaptable, and more resilient. Awareness is also created of the possibilities that squad or team chemistry can be more important than the strength and talent of the individual warriors and that diversity on various dimensions can increase the adaptability of the group in the face of new problems and challenges. The resource of “tolerance and openness” (see Table 1) serves as the primary foundation for this module.

In the third module, information is provided about the inherent need to belong and to form meaningful connections with others as well as the tendency in humans to mimic each other, to affiliate and communicate with one another, and to transmit emotions to one another. The module provides hands-on experience with the value of inclusion and the cost of exclusion, and practice is provided in perspective taking, empathy, regulating one’s own emotions, and supporting one another. This module underscores the notion that people influence one another both intentionally and unintentionally, and this influence can be positive or negative. The point is again made that soldiers fight more effectively and deal more effectively with the challenges they will confront if they think and act as a team rather than simply considering themselves. Evidence is reviewed that a focus on “we” rather than “me” has risks but that it can also buffer the effects of traumatic stressors soldiers may confront and help them learn and grow from those stressors. In doing so, the module draws most on three resources: “feeling connected to other individuals and collectives,” “the ability to respond appropriately to social problems,” and “expressing social emotions appropriately and effectively.” The experiential nature of this module is designed to reinforce the material covered in the prior

modules and to motivate the soldiers to take the lessons learned from these modules and apply them in their everyday lives.

The final module is focused on social skills development and provides specific information on how to create alliances with others. The resources that serve as foundations for this module include “communicating caring and respect to others,” “perceiving others’ regard for the self,” and “values that promote the welfare of self and others.” This module introduces the ABCDEs of good listening: (A) attend with genuine interest; (B) be responsive to what is said; (C) care about the other person and accept that their perceptions reflect how things look from their perspective; (D) don’t interrupt, but instead wait until they are finished; and (E) encourage the person to say more and to feel safe in speaking to you as confidant.

Enjoying good times together is important to friendship, but sharing difficult experiences is the glue that cements social bonds. The final module acknowledges that wartime will involve both good times and bad times, and it walks the troops through what it means to be a good friend and team member in difficult circumstances. Finally, the troops are exposed to information and perform tasks that are designed to underscore the importance of trust in resilient social relationships. Among the resources that undergird this module are “the capacity and motivation to perceive others accurately and empathically,” “communicating caring and respect to others,” and “trust.”

Limitations

Although the nine personal resources upon which this program is built were based on the extant research, there are at least four significant limitations to the social resilience modules in this educational, computer-based program. First, these modules provide information about social emotions, skills, and interactions, but the educational and computerized nature of the program precludes implementation of real-life social interactions in the modules. On the positive side, the computerized nature of the Soldier Fitness Tracker (see Fravell, Nasser, & Cornum, 2011, this issue) should provide baseline information about the soldier’s social integration and engagement, and it should permit follow-up analyses to determine whether improvements on these dimensions were observed (or for whom they were observed) following completion of the social resilience modules. It may also make it possible to construct natural experiments in which the social resilience of troops who were exposed to traumatic events is compared with that of others with similar backgrounds and training who were not exposed to traumatic events to determine whether those who had previously scored well on the social dimensions of the Global Assessment Tool did better following the stressor, relative to the matched comparison group, than those who had scored poorly on these dimensions, relative to the matched comparison group.

Second, these modules represent a form of translational research—taking what is known from laboratory and clinical research and applying it to address a specific social problem. The term *translational research* has the word

“research” in it because such efforts are more likely to succeed when the translation of the basic research to an applied problem is part of a research program that includes randomized control studies, evaluation of treatment efficacy, and iterative revision of the program to improve its efficacy and generalizability. To date, even pretesting has not been possible. Data from the program should provide valuable evidence regarding the challenge of building social resilience among the troops, especially if translational research becomes a central component of the program. Again, the Soldier Fitness Tracker makes such research possible, but what is possible will not be sufficient for the vision of Comprehensive Soldier Fitness to be realized (see Casey, 2011, this issue; Cornum, Matthews, & Seligman, 2011, this issue).

Third, social resilience is a multilevel construct, but the educational, computer-based program into which these modules fit targets only the individual level of organization—the individual soldier. Thus, the modules on social resilience focus on fostering the personal resources that promote social resilience, although an explicit effort is made in these modules to make the soldiers aware of the broader level of social resilience they must also strive to achieve. Interventions at the group level would also be worthwhile. Such organizational interventions focus on the context, aiming to improve the contingencies in place that support and/or constrain social fitness. As the Comprehensive Soldier Fitness program unfolds, such interventions might be worth considering.

Finally, the program may increase the average level of social resilience within the troops, but a shift in the mean does not imply that those at the bottom of the distribution of social resilience showed significant improvement. Given that this group may be at the greatest risk for problems such as posttraumatic stress disorders and suicide, special attention should be given to evaluating the effects of the program on those who need it most. This should be possible given the number of soldiers who will be going through this training and whose outcomes will be quantified in the dataset generated by the Soldier Fitness Tracker.

Conclusion

The key to resilience is not individual strengths alone. As Charles Darwin (1871/2004) noted when considering the limits of the principle of the survival of the fittest (individual),

a tribe including many members who, from possessing a high degree the spirit of patriotism, fidelity, obedience, courage, and sympathy, were always ready to aid one another, and to sacrifice themselves for the common good would be victorious over most other tribes; and this would be natural selection. (p. 166)

Social resilience depends on the development of greater awareness of our connections with others and multiple capacities for social action that can lead to the attainment of both personal hopes and social purposes. Choices informed by social connection as well as personal values lead to resilient outcomes that are sustainable with respect

to the social worlds in which we live as well as personal motivations for success and long life.

We offer one example of a program to further social resilience. Though designed only for Army recruits, we think the modules described here could be tailored to fit other social arenas and potentially yield sizeable benefits. Nevertheless, great promise needs to give way to careful testing of the efficacy of these programs to assure us that the interventions enhance the capacities of people to face calamities better as a group than they could alone.

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