



## Reflections on resilience

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### KEYWORDS

### ABSTRACT

*In these COVID-19 agitated times the term resilience has gained widespread resonance in scientific texts and in the media. This widely used analogy in the psychological lexicon was borrowed from metallurgy (a metallic beam under stress returns to normal in a short period of time when the stressor is removed). It reflects, in hindsight, a conception of the world based on competition. But, as cooperation is another powerful force driving human evolution, it must be reconsidered and improved. Using this frame, the resilience concept is narrow and functional, so it should be more critically used, especially in the psychological domain.*

## Reflections on resilience

The term resilience derives from metallurgy, as it evokes the possibility to come back like a steel beam that bends under stress and returns afterward to where it started. It was once considered extraordinarily dauntless in the face of adversity, as convention held that psychological resilience to life's stress remained a rare event, due to good parenting or a particular gene set. Now it is deemed a basic human adaptive system (Stix, 2011). In practice, it means that you are brought back to functioning in a short period. Of course, our functioning is more complicated than the metallic analogy, because we are not an ore, that can be mined, treated, and sold at a profit. This is because the term overlooks the fact that man is not a metal that does not break under stress: he is not an inanimate object without emotions, sensations, feelings, passions, desires and so on. In short, it is not enough for him to resist. Man is a social animal, therefore he needs participation, so to be strong and self-controlled only does not mean to be part of the common stress that life proposes to all of us. At a closer look, the term reflects, in practice, the *Weltanschauung* of a WEIRD individualist society nuanced by the male primacy: "I bend but I don't break" is the typical assumption of a macho that suffers without crying. WEIRD, by the way, is an acronym with which some cultural psychologists like Arnett (Arnett, 2008) years ago, labelled most of the studies found in the psychological domain. In fact, they realized that more than 90% of the published papers found in relevant literature in their field belonged to Western, Educated, Industrialised, Rich, and Democratic societies, aka WEIRD. With a lot of implications in several social spheres (Viviani, 2020a and 2020b). And in fact, Bollig (Bollig, 2014) in the abstract of his critical paper affirmed: "The resilience concept has been blamed for depoliticizing social-ecological dynamics, for its functionalist and narrow systems-based analytical perspective, for its neglect of power relations and its non-consideration of agency".

The use of a novel term like resiliency borrowed from other disciplines happened many times in science: the fact to have found a name implies that a status is found as well. As anthropologist, for example, every time I am obliged to fill a questionnaire aiming to define my “racial” status and I found Caucasian (Moses, 2017), I laugh to keep from crying, as I feel myself Armenian or Circassian. Probably, resiliency is not a correct term for humans: much better would fit locutions such as *fortitude* (from the Stoic sage Epictetus) or in suborder *temperance* but, given that the term is now well established, well, let’s keep it.

At a closer look resilience (from Latin *re* = back and *salire* = to leap) was used as a concept in ecology (Holling, 1973), in anthropology (Vayda & McCay, 1978), and archaeology (Redman, 2005), but after Werner & Smith’s paper (Werner & Smith, 1979) flourished in psychology. According to Bollig (Bollig, 2014), however, psychological resilience was not often conceptually connected to studies belonging to social resilience, or the ability of social entities to tolerate, absorb and cope with threats. Nor to ecological resilience, or the capacity of an ecosystem to resist perturbation and retrieve quickly, even if in this domain, it is often replaced by the vague concept of “sustainability” (Folke *et al.* 2002). In literature it has been defined by French psychiatrist Boris Cyrulnik “the art of navigating streams”, intending how to stay afloat getting hit in a stream (Cyrulnik, 2005). In Italy, Primo Levi, a Hebrew chemist interested in metals deported to Auschwitz, was the first to use the term when he reported the atrocities seen and suffered (Levi, 1958).

Studies focused mainly on bereavement and natural disasters (Betancourt & Khan, 2008) found that the quality of resilience is, in fact, quite common. Behaviours shown in response to the worst life has to offer showed that we “stand though” and that this helps with adaptation in a crisis (Bonanno, 2009). We can imagine that our evolution created the basis for emotional strength. Both neuroscientists and psychologists investigating on when something terrific happens (a death in a family, an earthquake or tsunami, a pandemic, a terroristic attack), when they look back at the consequences of horrific events, they have learned that most victims of tragedy soon begin to recover and ultimately emerge largely emotionally intact. Most people adapt surprisingly to whatever the world presents, life returns to a measure of normalcy in a matter of months. Many scientists now believe that resilience prevails as a *status quo* for virtually all of us, but a 10% or so, in the face of emotional trauma, will fail to bounce back (developing anxiety and depression). The fact is that when we face danger, our brains initiate a complex chemical cascade that primes us to *fight or flight* (Stix, 2011; Bonanno, 2009). The property of toning down the brain’s alarm system should be very old, as the cascade of chemicals promoting resilience to stress is working in 90% of the cases. Clearly, resilience is multifaceted, as biological, psychological, and socio-cultural factors interacting with one another determine how an individual will respond to stress. Some researchers suggest that resilience is innate (Bonanno, 2009). Others affirm that, like building muscle, increasing our resilience takes time and intentionality, as they imagine that resilience is ordinary, not extraordinary (Stix, 2011).

The resilience issue is very complex, but some attempts have been devised to help the 10 percent of individuals that are not able to bounce back. For example, a technique called critical incident stress debriefing (Jacobs, Horne-Meyer & Jones, 2004), revealed its inefficacy. Using the positive psychology frame other investigators were more successful. It encourages techniques such as the *mental reframing* permitting patients to rework their thoughts in a more positive way, revealed to be effective in children (Seligman, 2005).

In anthropology the use of the concept is variegated and debated, especially when it has to do with social resilience, which refers to the qualities and capacities of a community to recover from a

calamitous event. Sometimes it is confused with resistance, that is more linked to authority and power and inspired many counter-hegemonic processes. Famous, in fact, is Foucault's assertion (1976:125): "Where there is power, there is resistance". Without entering into the ongoing debate among cultural and social anthropologists on the differences existing between resistance and resilience (Dousset & Nayral, 2019), the impact of being exposed to extreme stress, being it individual, collective and symbolic, should contain some positive effects like *adaptation*, in which some individuals are able to imagine strategies to cope with adversities. Interesting is Keck & Sakdapolrak paper on social resilience (Keck & Sakdapolrak, 2013) and, among the flowering of studies carried out recently on COVID-19, a survey on young Belgian and Italian people (Marchini, Zaurino, Bouzotis *et al.* 2021). In addition, Young and collaborators study on pets and touch should be mentioned (Young *et al.*, 2020). Then, for example, after Grant's book (Grant, 2021), that defined some adults who stay apparently well in this COVID-19 era as being "languishers" (for him they are not depressed, nor in burn-out but just lacking joy and aim), various interventions with different purposes flourished in the NET to cope with this state. Sociologist Corey Keyes, in fact, defined languishing as a state in which people do not function at full capacity, as even if they don't have signs of mental illness but could develop serious depression and anxiety disorders in the future (Keyes, Dhingra & Simoes, 2010). This is because joy is a vital mechanism, connected to relations and events: our "joy capital", in the last year and half was blocked and it is running out, with unknown future implications for vulnerable people, especially children. Interesting is the Global Workplace Study 2020 (Hayes, Chumney & Buckingham, 2020) carried out in 25 countries, whose focus was engagement and workplace resilience during the pandemic to which reference should be made for further details. Then, it is important to contextualize a danger and its perception. In some African countries that during time faced several public health crises (AIDS, Ebola virus disease, swine flu) COVID-19 was perceived as being just another "familiar alien threat" driving to stigma and secrecy when infection emerged. Home remedies, herbal treatments and faith flourished (de Graft-Aitkins, 2021). In the USA the 2020 data on more than 5000 adults belonging to the Center for Disease Control and Prevention, showed that around 25% of the subjects developed symptoms of anxiety and 24.3% of the sample declared symptoms of depression (Czeisler *et al.* 2020). In black and Hispanic workers, the unemployment rate was much higher than that of white workers, so were the COVID-related deaths, and for Native Americans the percentages are worse. The future repercussions of this findings are, of course, unknown, as we don't know if and how these subjects will be able to bounce back.

To cope with adversities of life, we need *participation* and not only resistance to life difficulties, something very difficult in societies like the Western one, characterized by an exasperated individualism. Probably the best suggestion to increase resilience is to *cultivate compassion*, intending the one towards ourselves and the one towards the others (Levesque, Boucher & Latendresse, 2021). The feeling of benevolence, in fact, can modify and alter the volume of some brain tissues, and furnish a faster reaction to stimuli and a diminution of stress (Richard & Lutz, 2014). Some Stanford University's programs specifically aimed to train "bigheartedness" demonstrated that they move towards an increased well-being and the diminution of stress. (Hone, 2019).

Concluding, the new science of resilience must be improved, being its perspective narrow and functional. For example, the dynamics of social relationships are more complicated than imagined as recently shown by studies on social space (Schafer & Schiller, 2018). In fact, there is emerging evidence that in a group hierarchy we use shortcuts to understand where individuals reside inside a specific group hierarchy and how close or distant individuals are among them. Then we must revise the idea that struggle for life is a dog-eat-dog mechanism, as emphasis is put on competition in many societies. Cooperation is required because the mechanism of indirect reciprocity based on reputation works well in humans (Nowak, 2012). This is because cooperation, even if unstable, is an important

driving force in evolution (Nowak, 2006). In difficult times all is needed is method, common sense, and measure, as shown by some of the papers recently published (Veer, Riepenhauser & Zerban, 2021; Barzilav *et al.* 2021; Killgore *et al.* 2020) Given the precariousness of our existence it's much better to pool the defects of life, something that is much better than to resist because we cannot exempt ourselves from the common suffering. Therefore, sociability is needed and not individuals conceited and full of pride because they "did it".

## References

- Arnett, J. J. (2008). "The Neglected 95% Why American Psychology Needs to Become Less American". *American Psychologist*, 63(7): 602-14.
- Barzilav, R., Moore, T. M., Greenburg, D. M., DiDomenico, G. E., Brown, L.A., White, L. K., Gur, R. C., Gur, R. E. (2020). "Resilience, COVID-19-related stress, anxiety and depression during the pandemic in a large population enriched for healthcare providers". *Translational Psychiatry*, 10: 291. Doi: <<https://doi.org/10.1038/s41398-020-01150-4>>. Accessed: May 20, 2021.
- Betancourt, T. S. & Khan, K. T. (2008). "The Mental Health of Children Affected by Armed Conflict: Protective Processes and Pathways to Resilience". *International Review of Psychiatry*, 20(3): 317–28.
- Bollig, M. (2014). "Resilience. Analytical Tool, Bridging Concept or Development Goal? Anthropological Perspectives on the Use of a Border Object". *Zeitschrift für Ethnologie*. 139: 253-279.
- Bonanno, G. A. (2009). *The other Side of Sadness: What the New Science of Bereavement Tells Us about Life After Stress*. New York: Basic Books.
- Cyrulnik, B. (2005). *The Whispering of Ghosts: Trauma and Resilience*. Dripping Springs (TX): Big Bills Books.
- Czeisler, M. É., Lane, R. I., Petrosky, E. *et al.* (2020). "2020 Mental Health, Substance Use, and Suicidal Ideation During the COVID-19 Pandemic – United States, June 24-30, 2020". *MMWR Morbidity and Mortality Weekly Report*, 69: 1049-1057. <DOI: <<http://dx.doi.org/10.15585/mmwr.mm6932a1external icon>> Accessed May 26, 2021.
- de Graft-Aitkins, A. (2021). "A too familiar threat". *New Scientist*, 249: 23.
- Douset, L. & Nayral, M. (2019). *Pacific Realities: Changing Perspectives on Resilience and Resistance*. New York: Berghahn.
- Folke, C., Carpenter, S., Elmqvist, T, Gunderson, L. H., Holling, C. S. & Walker, B. (2002). "Resilience and Sustainable Development: Building Adaptive Capacity in a World of Transformations". *AMBIO. A Journal of the Human Environment* 31(5): 437-40.
- Foucault, M. (1976). *Histoire de la sexualité*. Paris: Gallimard.
- Grant, A. (2021). *Think Again: The Power of Knowing What You Don't Know*. London: Ebury Publishing.
- Hayes, M., Chumney, F. & Buckingham, M. (2020). *Global Workplace Study 2020*; <[https:// www.adpri.org/assets/global-workplace-study/](https://www.adpri.org/assets/global-workplace-study/)> Accessed May 25, 2021.
- Holling, C. S. (1973). "Resilience and Stability of Ecological Systems". *Annual Review of Ecology and Systematics* 4(1): 1–23.
- Hone, L. (2019). "3 Secrets of Resilient People". *TED Talks*. <[https://www.ted.com/talks/lucy\\_hone\\_3\\_secrets\\_of\\_resilient\\_people?language=en](https://www.ted.com/talks/lucy_hone_3_secrets_of_resilient_people?language=en)> Accessed May 20, 2021.
- Jacobs, J., Horne-Moyer, H. & Jones, R. (2004). "The effectiveness of critical incident stress debriefing with primary and secondary trauma victims". *International Journal of Emergency Mental Health*, 6(1): 5-14.
- Keck, M. & Sakdapolrak, P. (2013). "What is Social Resilience? Lessons Learned and Ways Forward". *Erdkunde*. 67(1): 5-19.
- Keyes, C. L. M., Dhingra, S. S. & Simoes, E. J. (2010). "Change in Level of Positive Mental Health as a Predictor of Future Risk of Mental Illness". *American Journal of Public Health*. 100(12): 2366-2371.
- Killgore, W. D. S., Taylor, E. C., Cloonan, S. A. & Dailey, N. S. (2020). "Psychological resilience during the COVID-19 lockdown". *Psychiatric Research*, Vol. 291. 291:113216. <Doi: 10.1016/j.psychres.2020.113216>. Epub 2020 Jun 9. Accessed May 16, 2021.
- Levesque, M., Boucher, T. & Latendresse, E. (2021). "Primum Non Nocere Orbis Non Sufficit. First Do Not Harm Isn't Enough". *Journal of Behavioral Health* 10(2): 1-2.
- Levi, P. (1958). *Se questo è un uomo*. Turin, Laterza. English Translation: Levi, P. (2003). *If this is a man. The truce*. Translated by Stuart Woolf. Reprint edition. London: Abacus.
- Marchini, S., Zaurino, E., Bouziotis, J., Brondino, N., Delvenne, V. & Delhay, M. (2021). "Study of resilience and loneliness in youth (18–25 years old) during the COVID-19 pandemic lockdown measures". *Journal of Community Psychology*. 49: 469-480.
- Moses, Y. (2017). "Why Do We Keep Using the Word "Caucasian"?" *Sapiens*. <<https://www.sapiens.org/column/race/>

- caucasian-terminology-origin/> Accessed May 24, 2021.
- Nowak, M. A. & Highfield, R. (2012). *Super Cooperators: Altruism, Evolution, and Why we Need Each Other to Succeed*. New York: Free Press.
- Nowak, M. A. (2006). "Five Rules for the Evolution of Cooperation". *Science*. 314:1560-15.
- Redman, C. L. (2005). "Resilience Theory in Archaeology". *American Anthropologist*. 107(1): 70–77.
- Richard, M., Lutz, A. & Davidson, R. J. (2014). "Mind of Meditator". *Scientific American*. 311(5): 22-29.
- Schafer, M. & Schiller, D. (2018). "Navigating Social Space". *Neuron*. 100(2): 476-489.
- Seligman, M. E. P. (2005). *Flourish: A Visionary New Understanding of Happiness and Well-Being*. New York: Free Press.
- Stix, G. (2011). "The Neuroscience of True Grit". *Scientific American*. 304(3): 20-25.
- Vayda, A. P & McCay, B. J. (1975). "New Directions in Ecology and Ecological Anthropology". *Annual Review of Anthropology*. 4: 293–306.
- Veer, I. M, Riepenhausen, A., Zerban, M. *et al.* (2021). "Psycho-social factors associated with mental resilience in the Corona lockdown". *Translational Psychiatry*. 11(1): 67. Doi: <https://doi.org/10.1038/s41398-020-01150-4>. Accessed May 26, 2021.
- Viviani, F. (2020a). "The WEIRDNESS of Scientific Associations". Brussels: *Boardroom Magazine*. <<https://boardroom.global/category/current-affairs/page/5/>> accessed May 15, 2021.
- Viviani, F. (2020b). *Advice is free. Tips for Associations*. Turin: Carta & Penna.
- Werner, E. E. & Smith, R. S. (1979). "A Report from the Kauai Longitudinal Study". DOI:[https://doi.org/10.1016/S0002-7138\(09\)61044-X](https://doi.org/10.1016/S0002-7138(09)61044-X) . Accessed May 15, 2021.
- Young, J., Pritchard, R., Nettle, C. & Banweel, C. (2020). "Pets, touch, and COVID-19: health benefits from non-human touch through times of stress". *Journal of Behavioral Economics for Policy*. Vol. 4, COVID-19 Special Issue 2: 25-33.