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# Multisystemic Resilience as a Necessary Condition for Ensuring Child Well-Being

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## Abstract

The global community is facing multisystemic challenges, the youngest generations additionally burdened by unprecedented risks shaping their future. In the context of change and instability, resilience is a necessary element of children's physical and mental health, their development and well-being. Building multisystemic resilience means ensuring that all systems children and youth exist in, from families and schools to countries and ecosystems, are able to cope with, adapt to, and transform, in response to current and future shocks and stresses. The article presents recent theories and research on multisystemic resilience and approaches to strengthening and building resilience. The author encourages the readers to analyze ways in which they can act within their own communities to create more resilient environments, networks and support systems that nurture the well-being of children and help them not only adapt to, but also thrive in, the world as it is today.

## Keywords

multisystemic; resilience; systemic resilience; child well-being; protective factor

## Introduction

Since the beginning of the 20<sup>th</sup> century there has been continual progress made on all indicators of child well-being, however inequalities, social injustice, violence and violations of children's rights still exist. Additionally, the youngest generations face unprecedented challenges which are shaping their lives, and will shape their

future.<sup>1</sup> In a constantly shifting, often unpredictable world resilience is a necessary element of coping with uncertainty, adversity and continual change. This article is an overview of most current definitions of *resilience*, the concept of *multisystemic resilience*, factors that support the development of resilience and most effective methods of building resilience in children and youth. The author would like to encourage the readers to analyze and discuss opportunities to support resilience of children and youth in their communities, finding ways to provide them with skills and resources to cope with present and future shocks and stresses. How can we create more resilient environments, networks and support systems that nurture the well-being of children and help them not only adapt to, but thrive in, the world as it is today?

## 1. What is resilience?

Resilience was commonly understood as an inherent quality of an individual, a form of toughness; a trait that is either present or absent. Currently, it is no longer thought of as “circumscribed within the body and mind”, but rather an “adaptive capacity.”<sup>2</sup> Resilience reveals itself in a situation of adversity (understood as abnormal levels of stress or disturbances that threaten functioning or development) and allows the individual to recover, adapt or transform. It is dependent on “connections to other people and systems external to the individual through relationships and other processes.”<sup>3</sup> Though character traits and cognitive skills do play a role, resilience resides within the interactions of people, resources and systems. It is developed throughout our lives, with childhood being the most crucial moment for building resilience. One of the resilience researchers simply defined it as “a dynamic process in which we interact with the world around us to become our best selves despite exposure to atypical stress and adversity.”<sup>4</sup>

Among experts there is no single definition of resilience. Two of the most widely accepted concepts come from Ann Masten and Michael Ungar. Masten offers a systems-level definition that can be applied to both living and non-living systems (microorganisms, individuals, families, communities, businesses, economies,

<sup>1</sup> A. Michałowska, *The Need for an Expanded Concept of Child Well-Being in a Time of Unprecedented Challenges*, [in:] A. Odrowaz-Coates (ed.), *Sociology of Education: Wellbeing and Resilience in the Times of Crisis*, Warsaw 2023, pp. 13–27, <https://doi.org/10.5281/zenodo.10401504>

<sup>2</sup> A.S. Masten, A.J. Barnes, *Resilience in Children: Developmental Perspectives*, “Children” 2018, 5(7), 98, p. 2, <https://doi.org/10.3390/children5070098>

<sup>3</sup> *Ibidem*.

<sup>4</sup> M. Ungar, P. Jefferies, *Becoming More Rugged and Better Resourced: The R2 Resilience Program’s Psychosocial Approach to Thriving*, “Frontiers in Psychology” 2021, 12, 745283, p. 2, <https://doi.org/10.3389/fpsyg.2021.745283>

ecosystems). She describes resilience as the capacity of a complex and dynamic system to successfully adapt (either by restoring equilibrium or transforming) to challenges (such as stress, disturbances and trauma) that threaten its function, survival or development, through multisystem processes.<sup>5</sup>

A cross-cultural perspective on resilience of human systems is offered by Michael Ungar and colleagues (The International Resilience Project). Resilience is the “capacity of a system (whether that system is an individual, a community or an institution) in contexts of adversity to navigate to the resources necessary to sustain well-being and the ability of these human systems to negotiate for promotive and protective resources to be provided in contextually and culturally meaningful ways.”<sup>6</sup> The process of both navigation towards, and negotiating for, health-sustaining resources (psychological, social, cultural, and / or physical) is done on the individual’s, communities or institution’s own terms.<sup>7</sup> The way individuals grapple with adversity is unique to their personality, context, their relationships, as well as the community and culture they function in. There are however elements common across all cultures which Ungar and colleagues describe as *tensions* that need to be resolved. These tensions are: access to material resources (such as food, clothing, shelter, financial or educational opportunities) relationships (peers, family members, community), identity (including personal and collective sense of purpose, beliefs and values), power and control (caring for the self and others, ability to affect change in social and physical environment to access resources), cultural adherence, social justice (finding a meaningful role in community, social equality) and cohesion (balancing personal interests with a sense of responsibility to the greater good; feeling part of something larger than oneself socially and spiritually).<sup>8</sup>

On the level of the individual, there is also a lack of a common, conceptual understanding of psychological resilience. According to meta-analysis done in 2019 it can be understood as “the ability to adapt positively to life conditions. It is a dynamic

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<sup>5</sup> A.S. Masten, A.J. Barnes, *Resilience in Children...*, *op. cit.*; A.S. Masten, C.M. Lucke, K.M. Nelson, I.C. Stallworthy, *Resilience in Development and Psychopathology: Multisystem Perspectives*, “Annual Review of Clinical Psychology” 2021, 17, pp. 521–549, <https://doi.org/10.1146/annurev-clinpsy-081219-120307>; A.S. Masten, F. Motti-Stefanidi, *Multisystem Resilience for Children and Youth in Disaster: Reflections in the Context of COVID-19*, “Adversity and Resilience Science” 2020, 1, pp. 95–106, <https://doi.org/10.1007/s42844-020-00010-w>

<sup>6</sup> M. Ungar, *Modeling Multisystemic Resilience: Connecting Biological, Psychological, Social, and Ecological Adaptation in the Contexts of Adversity*, [in:] M. Ungar (ed.), *Multisystemic Resilience: Adaptation and Transformation in Contexts of Change*, New York 2021, pp. 9–10, <https://doi.org/10.1093/oso/9780190095888.001.0001>

<sup>7</sup> M. Ungar, *Resilience across Cultures*, “The British Journal of Social Work” 2008, 38(2), pp. 218–235, <https://doi.org/10.1093/bjsw/bcl343>

<sup>8</sup> M. Ungar, M. Brown, L. Liebenberg et al., *Unique Pathways to Resilience across Cultures*, “Adolescence” 2007, 42(166), p. 295, <https://www.researchgate.net/publication/5990461>

process evolving over time, that implies a type of adaptive functioning that specifically allows us to face difficulties by recovering an initial balance or bouncing back as an opportunity for growth.”<sup>9</sup> Perseverance, maintaining good self-awareness and openness to change, are all elements of resilience. The authors conclude that psychological resilience is the ability to “maintain persistence of one’s orientation towards existential purposes” despite adversities and stressful events. “Purpose” understood as “long-term objectives” as well as an overall existential objective. Resilience allows an individual to maintain an orientation towards their personal fulfilment.<sup>10</sup>

Michale Ungar describes resilience as an “interwoven set of relationships”<sup>11</sup> and the factors that enable it are rarely fixed or predictable. He argues that resilience is best compared to a tangram rather than a puzzle. The elements of resilience do not fall into a predictable pattern like a puzzle but can be composed to make a single shape (square) or a multitude of shapes (triangle, apple, fish, plane etc.). Just like in a tangram, there are many approaches to coping with adversity.<sup>12</sup> The many elements of a tangram are a metaphor of the many elements that enable a child to be resilient and the many forms childhood resilience can take, depending on, among others, the child’s unique characteristics, age, bond with caregivers, socio-cultural environment, context of their life and available resources.

## 2. Why is multisystemic resilience of such importance?

The historical moment we are collectively experiencing is described as “an inflection point.”<sup>13</sup> We are witnesses to unprecedented environmental, social and technological changes as well as the emergence of novel risks such as the COVID-19 pandemic. In the coming decade volatility is expected, including the possibility of a polycrisis, in which various crises interact and their effects compound.<sup>14</sup> Current global challenges are *multisystemic*, affecting different human and natural systems (biological, psychological, social, built environments and ecosystems). Their impacts can cascade through various areas of human activity, affecting communities globally, though in various ways and to varying degrees. A process or event in one

<sup>9</sup> A. Sisto, F. Vicinanza, L.L. Campanozzi, G. Ricci, D. Tartaglini, V. Tambone, *Towards a Transversal Definition of Psychological Resilience: A Literature Review*, “Medicina” 2019, 55(11), 745, p. 14, <https://doi.org/10.3390/medicina55110745>

<sup>10</sup> *Ibidem*.

<sup>11</sup> M. Ungar, *Modeling Multisystemic Resilience...*, *op. cit.*, p. 23.

<sup>12</sup> *Ibidem*, pp. 23–24.

<sup>13</sup> UN, *United Nations Secretary General’s Report “Our Common Agenda”*, <https://www.un.org/en/content/common-agenda-report/> [accessed: 23.08.2024].

<sup>14</sup> World Economic Forum, *The Global Risks Report 2024*, Switzerland 2024, <https://www.weforum.org/publications/global-risks-report-2024/> [accessed: 22.08.2024].

location can influence the course of development and /or severity of a process or event in another part of the globe (see World Economic Forum, *The Global Risks Report 2024*, p. 9, figure D). All of us, in every corner of the world, felt, and continue to feel, the impact of the COVID-19 pandemic and climate change, which make painfully clear the interconnection of human systems globally and the link between people and the environment. In the context of change and instability resilience will be necessary not only for maintaining well-being of individuals, but for health and survival of societies and the planet.<sup>15</sup> A resilient individual, family, community or an ecosystem is capable of withstanding, adapting, recovering and / or transforming, when confronted with adversity. Resilience is the “interaction between nested or contingent and co-occurring systems”.<sup>16</sup> A *system* is “a group or set of related or associated things perceived or thought of as a unity or complex whole.”<sup>17</sup> Each system can be broken down into components. For example: genetics, different biological systems, emotions and motivations are part of the larger *system* that is an individual; organizations, shared norms and values, processes of interaction and regulation, are all part of social systems.<sup>18</sup> The capacity of a system (a human body, a community or an ecosystem etc.) to be resilient (adapt / recover / transform), is distributed throughout, and dependent on, networks of interconnected, interacting systems.<sup>19</sup> This is *multisystemic resilience*, the most prominent theory of resilience today, which takes into account the complexity and interdependence of all parts of our world. Building multisystemic resilience supports children and youth in coping with the burden of multisystemic challenges and prepares them to confront the multisystemic risks the future will most likely bring.

### 3. How are children and youth today?

There is no single, easily generalized answer to this question. The current well-being and future outlook of a child depends on the context of the child's life. Geo-

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<sup>15</sup> M. Ungar, *Introduction. Why a Volume on Multisystemic Resilience?*, [in:] M. Ungar (ed.), *Multisystemic Resilience: Adaptation and Transformation in Contexts of Change*, New York 2021, p. 4, <https://doi.org/10.1093/oso/9780190095888.001.0001>

<sup>16</sup> M. Ungar, *Modeling Multisystemic Resilience...*, *op. cit.*, pp. 6–7.

<sup>17</sup> System, *Oxford English Dictionary*, 2018, <http://www.oed.com.ezproxy.library.dal.ca/view/Entry/196665?redirectedFrom=system#eid>, cited in M. Ungar, *Modeling Multisystemic Resilience...*, *op. cit.*, p. 7.

<sup>18</sup> I. Schoon, *A socioecological Developmental Systems Approach for the Study of Human Resilience*, [in:] M. Ungar (ed.), *Multisystemic Resilience: Adaptation and Transformation in Contexts of Change*, New York 2021, pp. 335–358, <https://doi.org/10.1093/oso/9780190095888.001.0001>

<sup>19</sup> A.S. Masten, F. Motti-Stefanidi, *Multisystem Resilience for Children and Youth in Disaster...*, *op. cit.*



graphic location, socio-economic status, strength of social networks, cultural context, health, particular life situation and age (moment in development), are some of the factors. Today, more than ever, children's lives are affected by the global context, including multisystemic challenges and risks. UNICEF described the COVID-19 pandemic as the worst crisis for children in its 75-year history, disproportionately affecting those living in low-income countries.<sup>20</sup> The pandemic and the preventive measures undertaken disrupted education, health, social protection and economic systems, impacting children's physical and mental health, access to resources and education.<sup>21</sup> Children are also particularly vulnerable to the effects of climate change. They are more likely to suffer from air pollution, more prone to dehydration, child malnutrition rates have risen due to drought, childhood diseases are spreading faster due to environmental degradation, higher rates of natural disasters cause children to become displaced or lose their homes.<sup>22</sup> Many children worldwide experience *eco-anxiety*, feelings of sadness, helplessness, anger and worry about the future.<sup>23</sup> The youth mental health crisis may be a reflection of the uncertainty and instability of today's world.<sup>24</sup> One in seven 10-19-year-olds experience a mental disorder (data from 2024).<sup>25</sup> Soon, we will also see the ways in which technological advancement (including further development of AI) will shape children's private and professional lives. Poverty, war, natural disasters, vio-

<sup>20</sup> UNICEF, *COVID-19 'Biggest Global Crisis for Children in Our 75-Year History'* – UNICEF, <https://www.unicef.org/press-releases/covid-19-biggest-global-crisis-children-our-75-year-history-unicef> [accessed: 22.08.2024].

<sup>21</sup> E.A.K. Jones, A.K. Mitra, A.R. Bhuiyan, *Impact of COVID-19 on Mental Health in Adolescents: A Systematic Review*, "International Journal of Environmental Research and Public Health" 2021, 18(5), 2470, <https://doi.org/10.3390/ijerph18052470>; WHO, UNICEF, *Protect the Promise: 2022 Progress Report on the Every Woman Every Child Global Strategy for Women's, Children's and Adolescents' Health (2016–2030)*, Geneva: World Health Organization and the United Nations Children's Fund (UNICEF), 2022, <https://protect.everywomaneverychild.org/> [accessed: 22.08.2024].

<sup>22</sup> Harvard T.H. Chan School of Public Health, Center for Climate, Health and the Global Environment, *Children's Health*, <https://www.hsph.harvard.edu/c-change/subtopics/climate-change-and-childrens-health/> [accessed: 23.08.2024]; UNICEF, *The Climate-Changed Child: A Children's Climate Risk Index Supplement*, New York 2023, <https://www.unicef.org/reports/climate-changed-child#download-the-report> [accessed: 22.08.2024].

<sup>23</sup> C. Hickman, E. Marks, P. Pihkala, S. Clayton, R.E. Lewandowski, E.E. Mayall, B. Wray, C. Mellor, L. van Susteren, *Climate Anxiety in Children and Young People and Their Beliefs About Government Responses to Climate Change: A Global Survey*, "Lancet Planetary Health" 2021, 5(12), pp. e863–e873, [https://doi.org/10.1016/S2542-5196\(21\)00278-3](https://doi.org/10.1016/S2542-5196(21)00278-3)

<sup>24</sup> S. Schweizer, R.P. Lawson, S.J. Blakemore, *Uncertainty as a Driver of the Youth Mental Health Crisis*, "Current Opinion in Psychology" 2023, 53, 101657, <https://doi.org/10.1016/j.copsyc.2023.101657>; The Lancet, *An Age of Uncertainty: Mental Health in Young People*, Editorial, "The Lancet" 2022, 400(10352), p. 539, [https://doi.org/10.1016/S0140-6736\(22\)01572-0](https://doi.org/10.1016/S0140-6736(22)01572-0)

<sup>25</sup> WHO, *Mental Health of Adolescents*, 10 October 2024, <https://www.who.int/news-room/factsheets/detail/adolescent-mental-health> [accessed: 22.10.2024].

lence and maltreatment, displacement, effects of climate change, social isolation, mental illness in parents, discrimination are just some of the risk factors which can cause chronic stress, trauma, and have a negative impact on a child's life, health, development and well-being. Children and youth in low and middle-income countries will be affected much more by global challenges than their peers in high-income countries. The groups that are the most vulnerable include girls, children from minorities and indigenous communities, migrants and refugees and young people with disabilities.<sup>26</sup>

Despite these adversities, young people have a surprisingly positive view of their lives and the world they live in, according to UNICEF's *Changing Childhood Project* which surveyed 80,189 respondents ages 15–24 in 55 participating countries.<sup>27</sup> Children globally believe that childhood has improved in comparison with their parents generation (such dimensions as access to food, clean water, quality of health care and education). Most also believe that the world is becoming a better place, however this varies hugely depending on the context of a child's life (82% agree with this statement in Indonesia, 29% in Mali). There are also country-specific variations in regards to children's opinion on whether their generation will be economically better off than their parents (only 31% of respondents agree with this statement in high-income countries, 69% in low and lower-income countries).<sup>28</sup> Differences among countries are reflected in the World Happiness Report as well. Levels of self-reported happiness increased in some areas since 2010 (such as Central and Eastern Europe or East Asia) and in some decreased (North America, South Asia).<sup>29</sup> Despite these variations, both reports show that, on average, young people are happier, more optimistic about the state of the world, and hopeful about the future in comparison with older generations. This is even true in case of the environmental crisis – 86% of UNICEF's young respondents believe humans can still act to reduce most of the effects of climate change.<sup>30</sup>

How can we protect and maintain young people's optimism and hope for a good future? Most importantly by building resilience of the systems (families, schools, communities, countries and ecosystems) that children develop in. Resilience is of key importance for the well-being of children in the context of local and

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<sup>26</sup> S. D'Angelo, *Building Resilience Now and for the Future: Adolescent Skills to Address Global Challenges*, "Development Policy Review" 2022, 40(52), e12670, <https://doi.org/10.1111/dpr.12670>

<sup>27</sup> UNICEF, *The Changing Childhood Project*, <https://changingchildhood.unicef.org/en> [accessed: 22.08.2024].

<sup>28</sup> *Ibidem*.

<sup>29</sup> J.F. Helliwell, H. Huang, H. Shiplett, S. Wang, World Happiness Report, Chapter 2: *Happiness of the Younger, the Older, and Those in Between*, 2024, <https://worldhappiness.report/ed/2024/happiness-of-the-younger-the-older-and-those-in-between/> [accessed: 23.08.2024].

<sup>30</sup> UNICEF, *The Changing Childhood Project*, *op. cit.*

global challenges and crises experienced by youth today and the potential risks of the near future. Just like crises can cascade through systems and across time, so can resilience. Providing environments, resources and tools which help build adaptive capabilities in children can have an effect on generations to come.<sup>31</sup>

## 4. Building resilience in children and youth

Resilience does not mean avoiding adversity or difficult emotions, suppressing a disorder or dysfunction. Building resilience should focus on positive development, on increasing the capacity of children, families, and communities to cope with recurring or chronic challenges and anticipate potential new challenges in the future. Resilience is not a single trait located only within an individual but a process which requires multiple systems to collaborate in supporting children and youth during challenging times. Building resilience requires an in-depth understanding of the culture the child / children function in, the context of their lives and their specific needs.<sup>32</sup>

### *Risk assessment*

To build resilience it is necessary to first examine what type of risk an individual, community, asset or system is, or could be, exposed to, as well as the level of vulnerability to the impacts of potential hazards, which is determined by physical, socio-cultural, economic and environmental factors.<sup>33</sup> On the level of the individual, risk is understood as any genetic, biological, psychological, socio-economic or environmental factor which increases the probability of adjustment problems or a negative outcome.<sup>34</sup> Building resilience in children and youth requires an assessment of current challenges existing in a child's life as well as local and global risks. It is then possible to assess the way in which different systems in the child's life (including family or school) may compound or protect from negative effects of adversity, decreasing or increasing their resilience and influencing developmental outcomes. (For a brief, non-exhaustive overview of some of the

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<sup>31</sup> A.S. Masten, F. Motti-Stefanidi, *Multisystem Resilience for Children and Youth in Disaster...*, *op. cit.*

<sup>32</sup> M. Ungar, *What Works: A Manual for Designing Programs that Build Resilience*, Resilience Research Center, <https://resilienceresearch.org/WHATWORKS/> [accessed: 22.08.2024].

<sup>33</sup> UN Office for Disaster Risk Reduction, *GAR Special Report: Mapping Resilience for the Sustainable Development Goals*, Geneva 2023, p. 16, <http://www.undrr.org/gar2023sr> [accessed: 22.08.2024].

<sup>34</sup> I. Schoon, *A socioecological Developmental Systems Approach...*, *op. cit.*; A.S. Masten, C.M. Lucke, K.M. Nelson, I.C. Stallworthy, *Resilience in Development and Psychopathology...*, *op. cit.*



short and long-term existing and potential global threats based on reports from the UNDRR, UNICEF, IPCC, World Economic Forum and the European Commission, see Appendix 1).<sup>35</sup>

### **Resilience factors**

All children will experience stress and encounter risk but the same risk or stressor may impact children differently, depending on the child's previous experiences and available protective and promotive factors, both internal and external. The elements of resilience are: intrinsic factors established at birth (such as genetics and personality); neurobiological (e.g. brain circuitries involved in stress and behavioral regulation) and psychosocial factors (e.g. coping skills, internal moral compass); a supportive environment which facilitates the regulation of the neurobiological and psychosocial factors. As adversity or stress arise, the child's resilience is put to a test. Pre-existing adaptive skills may be used to cope with the stressful situation or new skills may have to be acquired.<sup>36</sup> However, the timing and duration of adverse experiences is important. Adversity in early childhood, long periods of exposure and / or an intense experience of adversity will have a stronger negative impact on the child.<sup>37</sup> In these instances a child's "default" resilience (the skills and resources a child already has at hand) may not be sufficient and additional resources are required for coping. These resources may reduce or offset the negative effects of stressors. If absent or not sufficient, the experience of adversity may result in trauma, defined as "an adverse experience, violation, or persistent stress in one's life that overwhelms the capacity to cope, typically has long-term emotional, psychological, and physical consequences."<sup>38</sup> Childhood trauma can af-

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<sup>35</sup> European Commission, *Strategic Foresight Report 2023*, Luxembourg 2023, DOI: 10.2792/32296; IPCC, *Summary for Policymakers*, [in:] *Climate Change 2023: Synthesis Report*, Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)], IPCC, Switzerland 2023, pp. 1–34, <https://doi.org/10.59327/IPCC/AR6-9789291691647.001>; UNICEF, *The Climate-Changed Child*, *op. cit.*; UNICEF, *The State of the World's Children 2021: On My Mind – Promoting, Protecting and Caring for Children's Mental Health*, New York 2021, <https://www.unicef.org/reports/state-worlds-children-2021> [accessed: 22.08.2024]; UN Office for Disaster Risk Reduction, *GAR Special Report...*, *op. cit.*; World Economic Forum, *The Global Risks Report 2024*, *op. cit.*

<sup>36</sup> G.S. Malhi, P. Das, E. Bell et al., *Modelling Resilience in Adolescence and Adversity: A Novel Framework to Inform Research and Practice*, "Translational Psychiatry" 2019, 9(1), 316, <https://doi.org/10.1038/s41398-019-0651-y>

<sup>37</sup> I. Schoon, *A socioecological Developmental Systems Approach...*, *op. cit.*; A.S. Masten, C.M. Lucke, K.M. Nelson, I.C. Stallworthy, *Resilience in Development and Psychopathology...*, *op. cit.*

<sup>38</sup> Harvard Graduate School of Education, *Navigating Trauma — for Teachers and Learners*, <https://www.gse.harvard.edu/ideas/education-now/22/04/navigating-trauma-teachers-and-learners> [accessed: 23.08.2024].

fect adult life in many ways, including mental and physical health, academic and professional achievement, it is also correlated to substance abuse and early death.<sup>39</sup> Professionals working within the field of trauma research understand the impact of childhood experiences on development, which is why the question shifted from “What is wrong with you?” to “What happened to you that is causing you to behave the way you do?”<sup>40</sup> What were the events and relationships that shaped who you are today? Sensitive individuals may be harmed more by adversity but may also benefit more from interventions and nurturing environments.<sup>41</sup> It must be mentioned that not all exposure to stress is negative. Some exposure to low-level risk which is not overwhelming for the child may be beneficial, acting as a challenge and an opportunity to practice problem-solving skills.<sup>42</sup>

Resilience factors (protective and promotive) help buffer negative outcomes and allow for a more positive adaptation when a system is exposed to adversity. Ann Masten created a list of the most important resilience factors that can be applied to any human system (individual, family, school, community and organization). Masten’s list reveals a striking alignment of resilience factors across human systems. For example, a nurturing social connection is important on the individual, family, school and community level. So is the sense of meaning: a sense of purpose is just as important for an individual as is a sense of purpose and cohesion within a family, school or community. These complex, interrelated systems of resilience most likely developed over generations of human evolution and had sociocultural and biological survival value. (see A. Masten “Multisystem Resilience for Children and Youth in Disaster: Reflections in the Context of COVID-19” for a table showing the parallel relationship between resilience factors in different human systems and A. Masten “Resilience in Development and Psychopathology: Multisystem perspective” for a “short list” of resilience factors).<sup>43</sup> The list includes: sensitive caregivers, close relationships and social support; sense of belonging and cohesion; self-regulation, skilled family management, group or organization leadership; agency, active coping, beliefs in system efficacy; problem solving and planning; hope, confidence in a better future and optimism; motivation to adapt,

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<sup>39</sup> Harvard University, Center on the Developing Child, *ACE’s and Toxic Stress: Frequently Asked Questions*, <https://developingchild.harvard.edu/resources/aces-and-toxic-stress-frequently-asked-questions/> [accessed: 23.08.2024]; Harvard University, Center on the Developing Child, *Toxic Stress*, <https://developingchild.harvard.edu/science/key-concepts/toxic-stress/> [accessed: 23.08.2024].

<sup>40</sup> M. Ungar, *Modeling Multisystemic Resilience...*, *op. cit.*, p. 8.

<sup>41</sup> A.S. Masten, C.M. Lucke, K.M. Nelson, I.C. Stallworthy, *Resilience in Development and Psychopathology...*, *op. cit.*

<sup>42</sup> I. Schoon, *A socioecological Developmental Systems Approach...*, *op. cit.*

<sup>43</sup> A.S. Masten, C.M. Lucke, K.M. Nelson, I.C. Stallworthy, *Resilience in Development and Psychopathology...*, *op. cit.*; A.S. Masten, F. Motti-Stefanidi, *Multisystem Resilience for Children and Youth in Disaster...*, *op. cit.*

mastery motivation; purpose and a sense of meaning; positive view of self, family or group; positive habits, routines, rituals, traditions, celebrations.<sup>44</sup> The R2 Resilience Program created by Michael Ungar and colleagues proposes a different, more extensive list, including 52 resilience factors, divided into 26 internal, *rugged qualities* (such as creativity, gratitude, critical thinking, a powerful identity, compassion for self, self-efficacy) and 26 *resources* (such as access to mental and physical healthcare, education / training, opportunities to use one's talents, transportation, advocacy if treated poorly, equitable access to opportunities).<sup>45</sup> The *resources* are the external protective factors which enhance the *rugged qualities* and vice versa. Individuals navigate to the resources they need but also negotiate for resources to be provided. Therefor individual qualities "can only produce positive outcomes if social and physical ecologies provide opportunities for people to develop and apply their strengths."<sup>46</sup>

Maria Llistosella and colleagues created the Individual and Environmental Resilience Model of child and youth resilience based on an integrative systematic review of 31 academic articles, aiming to provide a comprehensive tool which could aid in more effective resilience-promoting interventions. The IERM includes 60 protective factors, divided into the environment dimension (peers, family, school, community, cultural) and individual skills dimension (biological, behaviors, cognitive, emotional, communication skills). The review found that the protective factors which were the most consistent in the analysed publications were social and family support, parenting quality and the ability of a child to self-regulate.<sup>47</sup> Llistosella's list of main resilience-building factors includes: relationships and social support, family support, coping and perseverance, self-efficacy, competence, self-regulation, self-esteem, social skills, spirituality and physical activity.<sup>48</sup> Research conducted by Jan Høltge and colleagues in 14 countries, among 18,914 adolescents, also found that support of caregivers and friends during difficult times as well as the feeling of safety in the presence of a caregiver are the most important resources for youth resilience. It needs to be noted that there were variations among countries. For example, being treated fairly by one's community is

<sup>44</sup> A.S. Masten, C.M. Lucke, K.M. Nelson, I.C. Stallworthy, *Resilience in Development and Psychopathology...*, *op. cit.*

<sup>45</sup> M. Ungar, P. Jefferies, *Becoming More Rugged and Better Resourced...*, *op. cit.*, p. 4.

<sup>46</sup> *Ibidem*, p. 2.

<sup>47</sup> M. Llistosella, P. Castellvi, J.T. Limonero et al., *Development of the Individual and Environmental Resilience Model Among Children, Adolescents and Young Adults Using the Empirical Evidence: An Integrative Systematic Review*, "Health and Social Care Community" 2022, 30(6), pp. e3277–e3299, <https://doi.org/10.1111/hsc.13899>

<sup>48</sup> M. Llistosella, B. Goni-Fuste, L. Martín-Delgado et al., *Effectiveness of Resilience-Based Interventions in Schools for Adolescents: A Systematic Review and Meta-Analysis*, "Frontiers in Psychology" 2023, 14, 1211113, <https://doi.org/10.3389/fpsyg.2023.1211113>

the resource of the greatest importance in Indonesia; getting an education was the second most important resource in India and South Africa.<sup>49</sup> These variations are again a reminder that context shapes the lives, values and needs of children, which is why it has to be considered in the study of resilience, as well as in designing and implementing resilience-building interventions.

## Approaches to building resilience

A “magic formula for cultivating resilience” does not exist.<sup>50</sup> However there are three basic methods of intervention. The first strategy focuses on risk, aiming to prevent or reduce exposure to adversity (harm reduction), which in turn lowers the burden on resilience resources the child may already have (e.g. treating depression in a parent, preventing homelessness). The second strategy focuses on providing more resources, or better access to resources, that support positive adjustment or development (e.g. providing food or scholarships). The third strategy is to mobilize or restore resilience systems that protect or allow for positive adaptation when a child experiences adversity (e.g. interventions supporting good relationships with caring adults, strengthening problem-solving skills or self-regulation). For a long term and impactful intervention, utilizing more than one approach is often needed. The most common, and proven to have high efficacy, is an intervention that supports the needs of parents or caregivers. A child’s capacity to withstand stress and challenges is inextricably linked to interactions with parental figures, therefore the well-being of caregivers influences the child’s level of resilience.<sup>51</sup> Improving parenting skills, the quality of early child-parent interactions and interventions targeting Executive Function skills in young children will all have beneficial effects.<sup>52</sup> Similarly, creating safe, stimulating, nurturing school environments and supporting educators will strengthen resilience of children who interact with those systems.<sup>53</sup> School programs directly aimed at strengthening children’s resil-

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<sup>49</sup> J. Hölte, L. Theron, R.G. Cowden et al., *A Cross-Country Network Analysis of Adolescent Resilience*, “Journal of Adolescent Health” 2021, 68(3), pp. 580–588, <https://doi.org/10.1016/j.jadohealth.2020.07.010>

<sup>50</sup> UNICEF, *The State of the World’s Children 2021...*, *op. cit.*, p. 114.

<sup>51</sup> A.S. Masten, *Resilience in Developmental Systems: Principles, Pathways, and Protective Processes in Research and Practice*, [in:] M. Ungar (ed.), *Multisystemic Resilience: Adaptation and Transformation in Contexts of Change*, New York 2021, pp. 113–134, <https://doi.org/10.1093/oso/9780190095888.001.0001>

<sup>52</sup> A.S. Masten, C.M. Lucke, K.M. Nelson, I.C. Stallworthy, *Resilience in Development and Psychopathology...*, *op. cit.*

<sup>53</sup> A.S. Masten, *Resilience in Developmental Systems...*, *op. cit.*; UNICEF, *The State of the World’s Children 2021...*, *op. cit.*

ience are proven to be effective and have the potential of decreasing stress, anxiety symptoms, depression, psychological distress and internalizing problems. Meta-analyses of resilience-based interventions in schools<sup>54</sup> show a wide variety of approaches, most common being a multicomponent intervention, which uses more than one technique. Examples of techniques include mindfulness, counselling, social and emotional learning (SEL), leadership programs, life skills education, self-efficacy, sports programs, resilience curriculum, mentoring sessions, mental-health promotion programs, Cognitive Behavioural Therapy, fostering self-esteem etc. Most of the resilience-building interventions focused on individual factors, like coping skills, self-awareness and managing stress. Those interventions which related to environment factors focused on social and school support and peer relationships. Their duration also varied, from 1 session to 32 weeks and longer, from one session per week to daily sessions, ranging from 45 to 120 min. Different scales were used to measure the outcomes of the programs, with the Connor-Davidson Resilience Scale (CD-RISC) and Strengths and Difficulties Questionnaire (SDQ) being most common. The results of resilience interventions are shown to be maintained from 8 weeks up to 6 months. The developmental stage in which interventions are the most effective is adolescence. This may be due to the fact that this phase is connected with the expansion of social networks, an important aspect of resilience, which contributes to the benefits gained from resilience-building programs. During adolescence there is also a higher probability of mental health disorders manifesting themselves, another reason for focusing interventions on this age group. The meta-analyses suggest that the most impactful approaches are multicomponent interventions and Cognitive Behavioural Therapy (CBT). Multicomponent techniques seem to be the most effective due to the wide variety of protective factors which build resilience. A single type of intervention, such as counselling, mindfulness or SEL, did not increase resilience by itself.<sup>55</sup>

Creating a program which builds or enhances resilience is a complex task. Michael Ungar, together with colleagues from the Resilience Research Centre created a manual for counselors, community facilitators, social services employees, humanitarian aid workers and policy makers, addressed to professionals working both in low-and-middle-income countries (LMIC) and high-income countries (HIC). A successful program design should build relationships; encourage powerful identities; provide participants with opportunities for power and control; promote social justice; improve access to basic material needs (like food, housing, and

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<sup>54</sup> M. Llistosella, B. Goni-Fuste, L. Martín-Delgado et al., *Effectiveness of Resilience-Based Interventions in Schools for Adolescents...*, *op. cit.*; T.M. Pinto, P.G. Laurence, C.R. Macedo, E.C. Macedo, *Resilience Programs for Children and Adolescents: A Systematic Review and Meta-Analysis*, "Frontiers in Psychology" 2021, 12, 754115, <https://doi.org/10.3389/fpsyg.2021.754115>

<sup>55</sup> *Ibidem*.



safety); develop a sense of belonging, responsibility for others, spirituality, and life purpose; and encourage a sense of cultural and historical roots.<sup>56</sup> He underlines the importance of adapting the program to the local context, tracking the program's impact, planning for sustainability and most importantly, thinking about the multiple systems an individual exists in and interacts with. Ungar illustrates this with an example of a program which would be aimed at helping young women avoid early pregnancy. If it focuses only on the level of the individual, through education on the benefits of delaying pregnancy or by promoting better self-esteem, it will ignore the context of the girl's lives – the environment around them and the resources that are available to them or that they lack. Do the young women have access to education and employment opportunities? Is contraception available? Are the young men present in their lives coercing them into having intercourse?<sup>57</sup> Without addressing these questions the program would not have long-term impact. For a change to happen, resources supporting the change need to be present. The more complex the problem, the more protective processes and resources will be needed to make resilience more likely to occur.<sup>58</sup> The manual presents case studies of successful programs. One of them is Raising Voices in Uganda, which focuses on preventing violence against women and children through developing methodologies of prevention programming (including SASA!, their evidence-based community mobilization approach and *The Good School Toolkit*, an intervention led by students, teachers and the community) and influencing public opinion through traditional and social media. The organization continually adapts its approach through practice-based learning.<sup>59</sup> ACE Africa in Tanzania is focused on enabling children and their communities to take responsibility for their health, wellbeing and development through creating long-term, holistic programs tailored to specific communities, engaging volunteers and eventually handing over the program to the community.<sup>60</sup>

## Building multisystemic resilience

Individual, societal, ecological and economic well-being are interdependent, therefore maintaining the resilience of all systems is crucial.<sup>61</sup> The multisystemic nature

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<sup>56</sup> M. Ungar, *What Works...*, *op. cit.*, p. 9.

<sup>57</sup> *Ibidem*, p. 21.

<sup>58</sup> *Ibidem*.

<sup>59</sup> Raising Voices, <https://raisingvoices.org/> [accessed: 23.08.2024].

<sup>60</sup> Ace Africa, <https://www.ace-africa.org/> [accessed: 23.08.2024].

<sup>61</sup> UN Office for Disaster Risk Reduction, *GAR Special Report...*, *op. cit.*; World Economic Forum, McKinsey & Company, *Seizing the Momentum to Build Resilience for a Future of Sustainable In-*

of current risks and the need to build multisystemic resilience is well understood by many policy makers. Decisive global action is necessary to mitigate existing risks and create a safer, more inclusive and stable future.<sup>62</sup> Many institutions, organizations and experts have researched and developed new approaches to crises and risks, including climate change mitigation and adaptation options, concepts that offer an alternative to the current economic model, and new concepts of health and well-being (see Appendix 2 for examples).

Currently most interventions which aim at building resilience in children and youth focus on the level of the individual and the family, with some aspects related to community. Programs supporting the child-caregiver relationship and school-based programs strengthening resilience skills are effective and impactful. They are an important part of supporting child health and well-being and should be advocated for and invested in. But they are not enough. Building resilience in children and youth also requires a multi-system, multi-sector, multi-stakeholder, culturally-sensitive approach, tailored to the specific contexts and needs of the recipients, taking into account intergenerational justice and protecting the well-being of future generations. Building resilience includes eliminating preventable risks and providing opportunities for learning, recreation and employment. It means addressing structural injustice and preventing exposure to toxic experiences such as social marginalization or discrimination.<sup>63</sup> Many organizations understand the need for a multisystemic approach to child and youth resilience. Some examples of recent programs which utilized multisystemic thinking include: *Child Learning and House Hold Resilience* by World Vision International, with the goal of contributing to the holistic development of 358,000 children (0-6 years old) in Kenya through the provision of quality care and education by 2025<sup>64</sup>; *Building Resilience in the Sahel Programme* by UNICEF, aiming to increase access to basic social services (including health, nutrition, WASH, education, child protection and social protection) through multisectoral community capacity building and engagement, conducted between 2019 and 2023<sup>65</sup>; *Sustainability and Climate Change Action Plan 2023–2030* by UNICEF, integrated climate change adaptation and disaster risk reduction solutions aspiring to impact 500 million children and direct ser-

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*clusive Growth*, Switzerland 2023, <https://www.weforum.org/publications/seizing-the-momentum-to-build-resilience-for-a-future-of-sustainable-inclusive-growth/> [accessed: 10.08.2024].

<sup>62</sup> UN, Summit of the Future, *What is the Summit of the Future?*, <https://www.un.org/en/summit-of-the-future/about> [accessed: 22.08.2024].

<sup>63</sup> UNICEF, *The State of the World's Children 2021...*, *op. cit.*; A.S. Masten, C.M. Lucke, K.M. Nelson, I.C. Stallworthy, *Resilience in Development and Psychopathology...*, *op. cit.*

<sup>64</sup> World Vision International, *Child Learning and House Hold Resilience*, <https://www.wvi.org/kenya/child-learning-and-house-hold-resilience-clhr> [accessed: 22.08.2024].

<sup>65</sup> UNICEF, *Building Resilience in the Sahel Programme*, <https://www.unicef.org/wca/building-resilience-sahel-programme> [accessed: 22.08.2024].

vice delivery and capacity building predicted to support 30 million children in 100 countries.<sup>66</sup> Examples of intergenerational approaches are OECD's report and benchmark *Governance for Youth, Trust and Intergenerational Justice*<sup>67</sup> and UN's *Declaration on Future Generations*.<sup>68</sup>

Resilience functions across multiple systems, fluctuates, changes over time and relies on connections. Care, time, attention, informed and focused action is needed on multiple levels to build resilience. From families and communities to businesses, policies and ecosystems, how can we create safer, nurturing, just and healthy environments for our children today? How can we ensure a safer, more stable and liveable future with equal access to resources and opportunities for all? Though a complex task, it is not impossible, and each family, school and community can take steps towards strengthening resilience of children in their care.

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<sup>66</sup> UNICEF, *Sustainability and Climate Change Action Plan 2023–2030*, <https://www.unicef.org/documents/sustainability-climate-change-action-plan> [accessed: 22.08.2024].

<sup>67</sup> OECD, *Governance for Youth, Trust and Intergenerational Justice: Fit for All Generations?*, OECD Public Governance Reviews, Paris 2020, <https://doi.org/10.1787/c3e5cb8a-en>

<sup>68</sup> UN, *Declaration on Future Generations*, <https://www.un.org/en/summit-of-the-future/declaration-on-future-generations> [accessed: 22.08.2024].

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## Appendix 1

People and societies	Economies and governments	Technology	Environment
Erosion of social cohesion + societal polarisation	Geoeconomic confrontations, including trade wars and sanctions	Internet fragmentation	Global warming, extreme heat events, increased occurrence of wildfires and drought
Cost of living crisis	Prolonged inflation + prolonged economic stagnation	Digital monopolies and their impact on society	Upper ocean acidification
Food insecurity + reduced water security, malnutrition	Commodity price shocks and volatility	Digital inequality	Biodiversity loss and ecosystem collapse
Displacement, including large-scale involuntary migration, due to war and climate change	Erosion of trust in governments and the democratic system	Misinformation and disinformation	Changes in ecosystems (terrestrial, freshwater, ocean) including structure, species ranges and seasonal timing
Rise in infectious diseases	Increasing factionalism and decreasing global cooperation	Automation and AI – impact on jobs, including displacement	Glacial retreat and sea level rise
Impact of climate change and environmental degradation on human health, including pollution and heat stress	Interstate conflict	Biotechnology – engineered pathogens	Increase in extreme weather events
Exposure to increased occurrence of natural disasters, including floods and drought	Pressure on funding connected to broadening policy priorities, demographic changes	AI misalignment and other adverse outcomes of new technologies	Human-made environmental damage
Widening skill gaps and lack of adequate competencies due to technological developments	Debt crises	Cyber attacks	Pollution of air, water and soil
Impact of crises on mental health		Widespread cyber insecurity + cyber crime	

## Appendix 2

Some examples of new approaches, concepts and models that aim at tackling global crises and risks: The United Nations *Sustainable Development Goals* and the *Pact for the Future*; the IPCC's *Climate Change 2023: Synthesis Report*; OECD's report and benchmark *Governance for Youth, Trust and Intergenerational Justice*; World Economic Forum's *Seizing the Momentum to Build Resilience for a Future of Sustainable Inclusive Growth* white paper; Kate Raworth's *Doughnut Economics* regenerative and distributive model of economy; WHO's *Geneva Charter for Well-being* proposing "well-being societies" – an integration of individual, societal, community and environmental well-being; and Harvard's *The Human Flourishing Program* which includes the *Global Flourishing Study*. All of these initiatives help the global community reimagine the ways in which we live, govern and do business and intend to move us closer to more sustainable, and resilient, futures.