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Global Societal Challenges: A Plea for Strong Voices from Developmental Psychology

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Abstract

The world is facing complex global societal challenges including accelerating climate change, a pandemic, rising social inequalities also in well-functioning welfare states, cultural and linguistic diversity, and a renewed call for racial justice. Developmental psychology can make strong contributions to address these and other global challenges because developmental psychologists have the necessary theoretical, methodological, and empirical knowledge. This paper discusses (1) the usefulness of a relational developmental theoretical perspective, (2) implications for study designs and methodologies, (3) which competences should ideally be fostered early on to prepare adults to cope with global societal challenges that need high levels of future-oriented, cooperative, and collective efforts, and (4) the implementation gap between what is known in developmental psychology and what is done in educational settings. Overall, this paper is a plea for strong voices from developmental psychology to help solving current and future global societal challenges.

Keywords: Relational Developmental Theory, Future Orientation, Solidarity, Global Challenges, Preventive Intervention Programmes

Raise your words, not your voice.

It is rain that grows flowers, not thunder.

Rumi

There is no doubt that the world is facing major global challenges including accelerating climate change, a recent global pandemic, rising social inequalities also in well-functioning welfare states, cultural and linguistic diversity, and a renewed call for racial justice. Developmental psychology can help solving societal challenges, because developmental psychologists have some of the needed theoretical, methodological, and empirical knowledge which competences should be fostered early on to prepare adults to cope with global societal challenges that need high levels of future-oriented, cooperative, and collective efforts. This paper is a plea for strong voices from developmental psychology and discusses some theoretical, methodological, and conceptual foundations that might be helpful for developmental psychologists to make strong contributions.

Because the perception of phenomena always depends on our theoretical perspective and the related research depend on the applied methodology, this paper starts by discussing the main theoretical foundations on which the present analysis is based on. The main insight of this paper is that humans might need strong future-oriented, cooperative, and collective mind-sets to cope with global challenges. Based on this assumption, this paper outlines some possibilities how these competences might be fostered through education and identifies some major gaps in knowledge which developmental psychology could help to fill.

A Relational Developmental Theoretical Perspective

Because global challenges are highly complex issues that require the capacities of multiple and interacting systems to successfully respond to them, a relational developmental theoretical perspective is well suited to capture these complexities. Understanding human development within a relational paradigm means building on concepts like holism and complexity, activity, and agency, change and becoming, processes and relational analysis, as

well as the use of multiple perspectives and explanatory forms (Overton, 2015). A relational worldview tries to avoid reductionist models, because human development is understood as containing both continuous and discontinuous lifelong changes. Therefore, such a worldview is critical of the assumption of linearity. Instead, a relational developmental perspective aims to better understand the processes that are produced by mutually created relations between individuals and their environments and that are often interpreted as “adaptive developmental regulations” when they are mutually beneficial (Lerner et al., 2014; Lerner & Overton, 2008; Grütter & Buchmann, 2021). Viewed from a relational developmental perspective, to not consider the environments in which individual human development takes place makes not much sense, as development is produced by co-acting dynamic systems. Bronfenbrenner (1979) developed a prominent relational theoretical framework in which human development is understood as the result of ontogenetic characteristics and complex interrelations at the ontogenetic, micro-, meso-, exo-, macro-, and chronosystem levels.

A relational developmental perspective has also been applied in resilience research that is when dynamic systems need to withstand and rebound from disruptive challenges that seriously threaten their function, viability, or development (Masten, 2014). Resilience is the capacity of dynamic systems that foster their successful adaptation, recovery or even growth after experiencing serious challenges. On the level of the individual, resilience is often inferred from observable success after experiencing serious challenges or when resources are present in a person’s life that are associated with good adaptation under general or specific adverse circumstances (Masten, 2016). Ungar (2008) suggests shifting the focus from understanding resilience as an individual capacity only to understanding it in terms of the quality of the individual’s social and physical ecologies. A socio-ecological understanding of resilience focusses on the qualities of dynamic and interacting socio-ecological systems. The assumption is that when growing up under adversities, the locus of change does not reside in

either the individual or the environment alone, but in the processes by which environments provide meaningful resources that are accessible by individuals (Ungar, 2011).

In this line of thinking, outcomes at the individual level are understood as results of cocreated adaptive processes that are caused by both individual and system level capacities (Masten & Motti-Stefanidi, 2020). A relational developmental perspective also assumes that one process might lead to a multitude of different outcomes on different systemic levels (e.g., multifinality); as well as one outcome on a certain systemic level can be caused by different processes (e.g., equifinality).

Consequences for Developmental Research

To capture some of the complexities of global challenges on human development, there are several major implications for study designs and methodologies, for instance (1) the purposeful integration of contextual variations, (2) the thorough analysis of individual in context variations, and (3) the analysis of dynamic multi-level changes. Opposing reductionism and a simplified linear understanding of causality (Overton, 2015), a relational developmental theoretical position advocates to intentionally enhance the existing complexities of dynamic systems in study designs by explicitly integrating contextual variations.

Bronfenbrenner's thinking (1979) helps to structure spatial and temporal complexities by differentiating several levels of development and by identifying meaningful starting points, turning points and transition phases in study designs. Thus, a relational developmental theoretical position intentionally picks developmentally meaningful temporal windows, explicitly gathers contextual information, and purposefully chooses the time spans between waves of measurement with the goal to best capture possible changes of dynamic systems. Furthermore, a relational developmental theoretical position does not assume that developmental processes are the same for all dynamic systems. Instead, it is theorized that there is some or even a large amount of variability between them. To be able to capture and to

describe this variability, statistical methods of analyses are ideally person- and not variable-centred, because these methods have been developed to be able to identify and to map variabilities between sub-groups of individuals.

The investigation of reciprocal multi-level processes represents the core of a relational developmental analysis because it is theorized that there is dynamic change on all systemic levels that is produced by complex interrelations of both individuals and their contexts. As Kloep, Hendry and Saunders (2009) put it, change comes about by complex interrelations of resources and challenges on different systemic levels as these interrelations are the drivers for change and major transformations of all systems involved. Development happens when this change results in major re-organisations and transformations, while stagnation results when challenges would be avoided, and the systems would be kept near to equilibrium. Thus, for development to happen there must be a time of instability and major disturbances, because only then dynamic systems are able to fundamentally re-organize themselves (Hendry & Kloep, 2002). Thus, a better understanding of the processes that un-balance dynamic systems is equally necessary to be able to later understand how these systems get re-organised on a more complex level.

A prominent recent example of a global challenge is the COVID-19 pandemic. From a relational developmental theoretical perspective, the COVID-19 pandemic represented a highly dynamic cause of multisystem disturbances that evoked complex, largely differing and time-varying responses of countries, communities, neighborhoods, families, schools, and individuals. By recognizing these multisystemic and dynamic complexities, developmental psychologists realized studies that took into consideration that COVID-19 represented a highly contextualized phenomenon that did not unfold identically in different socio-ecologies (Branje & Morris, 2021; Strohmeier & Branje, 2023). The accelerating climate change is another highly relevant example of a multisystemic and dynamic global challenge that has however not received a comparably high attention from developmental psychologists yet.

Future-Oriented, Cooperative, and Collective Mind-Sets

Global challenges like the COVID-19 pandemic and the climate change have been analysed in terms of social dilemmas (van Lange et al., 2013), because they involve a conflict between immediate self-interests and longer-term collective interests. The nature of this conflict implies that social (individual vs. collective) and temporal (short vs. long term) interests are inversely related, because choosing a course of action that leads to positive short-term consequences for the individual, might lead to negative long-term consequences for the collective. Based on these analyses, van Lange and colleagues (2018) suggested that the promotion of future-oriented, cooperative, and collective mind-sets is needed to enable humans to prioritize positive long-term consequences for the collective over positive short-term individual gains and to perform the corresponding behaviours.

Thinking about and acting upon the future is a key characteristic of the human mind that makes individuals direct their development and actively select their life trajectories (Nurmi, 1991; 2005). Thus, future-orientations are genuine expressions of human agency, e.g., of autopoietic, open, complex, and co-acting dynamic systems. It is well researched that individuals shape their lives' courses regarding their goals, possible selves, or personal projects and that these goals are age-dependent (Nurmi, 1992; Salmela-Aro, 2009; Ashby & Schoon, 2012). In essence, future orientations capture what individuals want to happen in the future. The future-orientation three-component model (Seginer, 2009) distinguishes between motivational, cognitive, and behavioral aspects of future-oriented thinking. Steinberg et al. (2009) showed that adolescents are less oriented to the future than adults. This relatively weaker future orientation among adolescents was found for individuals' self-reported likelihood of planning ahead, the extent to which they say that they think about the future, and their reported inclination to anticipate the future consequences of their actions before acting, as well as in their preferences for smaller rewards that are delivered sooner over larger ones delivered at a more distant time point.

In developmental research, thinking about and acting upon the collective future has been much less investigated (Strohmeier et al., 2017; Strohmeier & Tenenbaum, 2019), although pursuing longer-term collective goals might be even more relevant for positively transforming collective global challenges compared to shorter-term personal projects. A study that investigated longer term visions and worries for the future of Europe among adolescents and young adults aged 16 to 25 years located in seven different European countries found that economic challenges, human rights, and the environment were the most important future visions; unemployment and poverty, climate change, civil unrests and the collapse of the EU were the most important future worries (Strohmeier & Tenenbaum, 2019). It was also shown that different forms of young people's (dis)engagement with the European Union were differentially associated with different future visions and worries demonstrating the importance of longer-term collective goals for current and future behaviour.

In a similar vein, Grüttner & Buchmann (2021) theorized that solidarity is characterized by the willingness to accept a shorter-term individual loss for a longer-term collective gain and conceptualized solidarity in times of the COVID-19 pandemic as a multidimensional construct comprising of disease, community, and peer-norm related components. Grounded in a relational developmental theoretical perspective, these authors conceptualized solidarity in times of the COVID-19 pandemic as a mutually beneficial individual in context relations. Therefore, high levels of solidarity are indicators of adaptive developmental regulation, while low levels or the absence of solidarity are indicators of maladaptive developmental regulation. It was hypothesized that the competences needed to respond to the COVID-19 pandemic by showing solidarity are formed over the course of development. To test this hypothesis, data were collected from a regional representative longitudinal sample of Swiss young adults aged 20 years during the first lockdown in late spring 2020. Applying a person-oriented method of data analysis three groups characterized by low (23%), average (54%), and high solidarity (23%) were identified. The high solidarity

group was characterized by high levels of concern for others health, high levels of concern for vulnerable groups and high levels of perceived peer concern for vulnerable groups, while the low solidarity group was characterized by high levels of non-compliance with social distancing rules, and low levels of all other constructs including perceived control of and responsibility for catching COVID-19. Sympathy, social trust, and peer exclusion measured when the young adults were 12, 15 and 18 years old predicted the membership in these three pandemic related solidarity profile groups. Controlling for the stability of each predictor and for the within-time associations (i.e., correlations between variables at each time point), high levels of sympathy and high levels of social trust at age 18 predicted the membership in the high compared to the low solidarity group at age 20, while high levels of levels of sympathy and low levels of peer exclusion predicted the membership in the high compared to the average solidarity group. Remarkably, high levels of sympathy at age 12 predicted the membership in the high compared to the low solidarity group and in the high compared to the average solidarity group at age 20. These results indicate that the development of intentions and behaviours that benefit the common good during the COVID-19 pandemic rests upon normative developmental processes from early to late adolescence.

This study is one remarkable example how relational developmental theorizing in combination with a person-oriented longitudinal research design contributes to a better understanding of the developmental foundations of solidarity, a competence that was highly relevant during the COVID-19 pandemic. The understanding of the emotional states and perspective of others accompanied by feelings of concern for another (e.g., sympathy, Eisenberg et al. 2010) among children and in early adolescence was a precursor of solidarity during the COVID-19 pandemic. Therefore, it can be concluded that sympathy is one important competence that should be promoted through education. Certainly, much more research like that is needed to put developmental psychology in a strong position to make evidence-based recommendations for which sets of competences should ideally be fostered in

early ages to best prepare adults to cope with global challenges that need high levels of future-oriented, cooperative, and collective efforts.

Fostering Competencies through Education

In developmental and educational sciences, several competence frameworks have been developed with the goal to exemplify the concrete competencies that should be fostered early on to best prepare humans to deal with complex personal, collective, and global challenges. One of these frameworks has been developed by the Council of Europe (2018) and is called “Reference Framework of Competences for Democratic Culture” (RFCDC). The RFCDC describes 20 competences, grouped into four domains (values, attitudes, skills, and knowledge and critical understanding) that are needed by individuals to act as effective, respectful, and responsible democratic citizens. Examples of the 20 competences are e.g., valuing human dignity and human rights, openness and respect, empathy, cooperation skills, knowledge languages, or critical understanding of communication. This competence framework was developed based on an audit and analysis of 101 existing competence schemes, using a set of principled criteria to identify the core competences that are required to function as an interculturally respectful democratic citizen (Barrett, 2016). All 20 competences in the model are teachable, learnable, and assessable.

In line with relational developmental theorizing, the RFCDC proposes that these competences are rarely used and applied individually. Instead, these competences are mostly applied in clusters. Depending on the situation and the specific demands, challenges, and opportunities of a particular situation, as well as the specific needs of the individual within that situation, a person will activate and deploy different subsets of competences. Furthermore, any given situation also changes over time. For this reason, an effective and adaptive response requires the constant monitoring of the situation and the appropriate ongoing adjustment of the competences being deployed. In other words, a competent individual activates and deploys

clusters of competences in a fluid, dynamic and adaptive manner to meet the constantly shifting demands, challenges and opportunities that can arise in concrete real-world situations.

The RFCDC assumes that education from early childhood through to lifelong learning can help learners of different ages to develop sets of competences that are potentially needed to successfully address future global challenges. Using this avenue, the Council of Europe uses the national educational systems of its member states to promote the necessary competences in systematic, holistic, and sustainable ways. Educational systems are equipped with curricula, toolkits, pedagogical practices, and assessment methods that comprise competences that are likely needed by adults to deal positively with future global challenges.

The Council of Europe assumes that children and adolescents who develop high levels of proficiency in the use of competences for democratic culture as outlined in the RFCDC through their education are better able to respond effectively and positively to future challenges when they are adults compared to children and adolescents who acquired lower levels of proficiency in the use of these competences during their education. However, to date only very few studies investigated this question (e.g., Tenenbaum et al., 2022). More longitudinal research spanning childhood, adolescence and young adulthood focussing on these or similar research questions would help to put developmental psychology in a strong position to make evidence-based recommendations for which sets of competences should ideally be fostered in early ages to best prepare adults to cope with global challenges that need high levels of future-oriented, cooperative, and collective efforts.

Evidence-Based Intervention

To implement a competence framework like the RFCDC into a national educational system comprises a large-scale holistic educational transformation that needs a political mandate, a long-term perspective, and a system that is open for a major educational reform (Spiel et al., 2018). Because of the presence of a multitude of structural obstacles related to educational policy, money spent on education, the quality of teacher education, and school

infrastructure, it is often unrealistic to successfully implement a large-scale educational intervention top-down. In such circumstances, to start a transformation at a smaller scale from bottom-up could be feasible, especially when schools must deal with a multitude of daily obstacles (like e.g., inadequate rooms, too big student groups, poorly educated teachers, etc). One example to learn from are programs that foster socio-emotional competencies and that prevent bullying among children and adolescents, because their effectiveness has been studied widely in developmental psychology (Gaffney et al., 2019; 2021). In many countries, anti-bullying programs have been implemented and evaluated, yet only in few countries these programs have been successfully scaled up and sustainably implemented after the initial evaluation trials (Herkama et al., 2022). As Pearce and colleagues (2022) point out, even after decades of intervention research, there is a critical ‘implementation gap’ between what is known in developmental psychology and what is practiced in schools. This implementation gap is present in high income countries with well-developed educational systems, but represents even a bigger challenges in low or middle income countries that struggle with a multitude of structural obstacles.

For instance, a whole school social competence program has been developed, large scale implemented, and evaluated in Austria, a high-income country (Gradinger & Strohmeier, 2018; Strohmeier et al., 2012). Later, this program has been implemented in Cyprus, Romania, Turkey, and Kosovo (Strohmeier & Spiel, 2019; Strohmeier et al., 2021) According to the World Bank (2019), Romania, Turkey, and Kosovo are representatives of middle-income countries (MICs), while Cyprus also is a high-income country, but underwent a severe financial crisis including a national bankruptcy at the time of the initial implementation of the program there. In line with relational developmental theorizing, to be just able to implement the program in these contexts and under economically challenging macro-level circumstances, it was necessary to adapt it to the local possibilities. Therefore, the most important lesson learned from these international implementations is that

implementing a preventive intervention programme in a different national context without minor or major adaptations is unrealistic and not feasible. Instead, it is necessary to develop and to test creative implementation models that can be potentially sustained even with no or limited resources (Doğan et al., 2022). These experiences question an easy transferability of evidence-based programmes, point to their contextual embeddedness and emphasize the importance of implementation science (Schultes, 2023).

Thus, to acknowledge the existence of possibly large systemic variabilities between different (national) contexts and to investigate the feasibility of different implementation models is a very important endeavour for future studies. A better understanding which implementation models work best in which contexts is as important as the theoretically and empirically sound content of preventive interventions (Schultes, 2023). To put developmental psychology in a strong position to help closing the ‘implementation gap’ and to ensure that what is known in developmental psychology can also be sustainably implemented in different educational settings, much more developmental research should focus on these or similar research questions.

Concluding Remarks

Which competencies do adults need to cope with global societal challenges that need high levels of future-oriented, cooperative, and collective efforts? When and how could these competencies ideally be fostered in educational settings? What needs to be done that educational systems sustain implementing the promotion of these competencies? The aim of this discussion paper was to give some answers from developmental psychology to these important questions. Because the answers are always dependent on the theoretical perspective and the related research depend on the applied methodology, this paper also discussed some important theoretical foundations and their implications for research methods. It was not the intention of this paper to provide final answers to these questions, instead it is the intention to

invite everybody who sees the relevance of this kind of thinking to contribute to this discussion with own developmental research.

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