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# Transformative Learning and Education for Sustainable Development

*Is higher education capable of  
promoting learning for change?  
Can transformative learning nurture spaces for  
innovation in education for sustainable  
development? A call to action from saguf.*

Jörg Balsiger, Ruth Förster, Clemens Mader, Ueli Nagel,  
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A fundamental transformation of life-styles and economic patterns is needed to achieve sustainable development, as currently proposed in the *United Nations Sustainable Development Goals*. Education has been called upon to support this transformation (WBGU 2011). The 2005 to 2014 *UN Decade of Education for Sustainable Development* (ESD) confirmed that ESD could enable us “to constructively and creatively address present and future global challenges and create more sustainable and resilient societies” (UNESCO 2017). Over the course of the last two decades myriad ESD initiatives have testified to the importance of integrating sustainable development into curricula.

Yet the jury is still out on whether ESD is a panacea for the world's ills or is itself part of the problem. Critics suggest that it has succumbed to utilitarian and neoliberal discourses on education and sustainability, where growth paradigms dominate and nature is only valued for its use to humans (e. g., Huckle and Wals 2015). By contrast, sympathetic observers and practitioners argue that overcoming current obstacles and continuing to foster ESD requires new pathways in teaching and learning (Tilbury 2011). This is based on an understanding that we need transformative learning rather than only “conformative” and “reforma-

tive” learning (Sterling and Thomas 2006) – a challenge for educational policy at all levels.

Is higher (academic, professional, and continuing) education capable of promoting such learning for change? Can transformative learning nurture spaces for innovation in ESD? As the *ESD Working Group of the swiss academic society for environmental research and ecology (saguf)*, we comment on the relationship between transformative learning and higher ESD and identify conditions that can help accelerate current progress. Our main message is that ESD must build on transformative learning, and that greater attention to transformative learning requires taking into account, and critiquing, the social and normative context in which teaching takes place.

## Old Wine in New Bottles?

Transformative learning emerged in the 1970s and is best known through the work of Jack Mezirow. Grounded in cognitive and developmental psychology, he accords a central role to the process of “meaning perspectives” through which we make sense of everyday life (Mezirow 2000). These sets of beliefs, values, and assumptions are essential to interpret our environment, guide our actions, and help shape our identity, but they also place limits on what we can

comprehend. Transformative learning is triggered by crises (disorienting dilemmas) that reveal our meaning perspectives (often under intense emotional stress), prompt

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critical reflection, invite experimentation with new meaning perspectives, and finally lead to their assimilation.

In this view, transformative learning is a form of third order learning, implying a paradigm change triggered by the experience of liminality (an in-between state of ambiguity or disorientation, Land et al. 2014) with a disruptive or restorative element (Lange 2004). This leads to “the experience of seeing our worldview rather than seeing with our worldview so that we can be more open to and draw upon other views and possibilities” (Sterling 2011, p. 23). By contrast, first order learning refers to reproduction of knowledge and “doing things better” and second order learning to critical reflection and “doing better things”, mirroring Sterling’s (2011) differentiation between conformative, reformative, and transformative levels of learning.

Mezirow’s approach to transformative learning has been modified in reaction to his overly individualistic orientation and brought into dialogue with ESD. For Brookfield (2000) transformative learning ought to prompt reflection on prevailing relations of power and discourse, especially in view of contemporary capitalism’s value orientations. Freire (1970) also points to transformative learning’s emancipatory potential, where the interplay between action and reflection serves to identify and counter social inequalities.

As underlined by Sterling (2011), who has been at the forefront of mobilizing transformative learning for ESD, both Mezirow and Freire have influenced the current understanding of transformative learning, which “(...) involves a deep structural shift in the basic premises of thought, feelings and actions. It is a shift of consciousness that dramatically and permanently alters our way of being in the world. Such a shift involves our understanding of ourselves and our self-location: our relationships with other humans and with the natural world. It also involves our understanding of power relations in interlocking structures of class, race and gender, our body awareness, our visions of alternative approaches to living, and our sense of possibilities for social justice, peace and personal joy” (O’Sullivan and Morrell 2002, p. 18).

Hence, while transformative learning is often presented as a mode of change on the part of an individual (albeit as part of society), the transformation to sustainable development (SD) clearly requires societal change. As a consequence, we should never lose sight of the interaction between individual and societal change, as there can be no societal transformation without individual transformation. By implication, any transformation of an individual’s values *can* lead to a corresponding shift of values in reference groups.

Does promoting transformative learning ultimately amount to more than good teaching? We argue that it does, for what the ESD context adds to transformative learning is a mutually reinforcing relationship, a goal and value orientation, and a decidedly social and constructivist conception of learning. The focus of ESD is on a process of collective awareness for engagement in concrete initiatives. Transformative learning for SD is thus participatory,

integrative, and reflective (Singer-Brodowski 2016), and requires a restorative approach and a safe space for the learning process. The setting becomes the message and the values of SD need to be constantly negotiated and re-negotiated, which makes teaching and learning an enormous challenge. Drawing on our professional experiences, we suggest that the challenge can be addressed in higher education, but we underline that fostering transformative learning in tertiary learning settings requires institutional change and the orchestration of liminality and mindful transforming learning and training environments.

#### **Transformative Learning and Education for Sustainable Development: Conditions and Challenges**

A recent assessment of SD at Swiss universities found some progress in transforming training environments (Akademien der Wissenschaften Schweiz 2017). For example, guidelines and coaching at the Univer-

**FIGURE:** Information alone does not lead to a change of behaviour.



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sity of Bern help teachers realize that their understanding of science can safely be related to SD, without loss of objectivity (Herweg et al. 2017). In higher professional education, training courses for adult educators have promoted SD and transformative learning for several years (WWF 2015).

Nevertheless, Swiss higher education institutions are still far from enabling their students and researchers to become agents of change for SD. Most SD curricula and ESD settings are of the traditional kind that prioritizes knowledge over competence and competition over collaboration (e.g., Wilhelm et al. 2015). With regard to SD, progress resembles cosmetics rather than transformation, even though some universities have begun to create opportunities for change.

With a view to accelerating progress, we conclude by highlighting a number of key conditions.

**Normativity.** ESD must build on transformative learning and explicitly integrate critical reflection on goals and values. While some of these have to be negotiated as they may vary in time or space (e.g., minimum income), others are non-negotiable (e.g., human rights). Power relations at all levels must be scrutinized, as they underpin the unsustainability of prevailing economic systems. At the same time, transformative learning must not be used to instrumentalize learners but to empower them for autonomous critical action.

**Social context.** The *UNESCO Global Action Programme* (2014) defines “transforming learning and training environments” as one of its five priority action areas. Transformative learning has to encompass critical reflection about the social context, which includes the educational environment as an institutional setting subject to power relations.

**Liminality.** While views on transformative learning note the importance of a disorienting dilemma, coping with liminality is a non-negligible responsibility. Competences, among educators, are needed to recognize and accompany a learning edge, assess the risks of frustration and abandon,

help learners get past the in-between state, and facilitate the reconstruction and assimilation of sustainable meaning perspectives (e.g., Land et al. 2014).

**Transformative teaching.** There can be no transformative learning without transformative teaching, which should include among other elements an emphasis on personal experience; inter- and transdisciplinarity (Balsiger 2015); service-learning arrangements; self-organized engagement with knowledge, values, and emotions; and living labs. A role shift is also necessary. Teachers take on the role of coaches, facilitating learning and co-learning among students but also between students and teachers. The *UNECE ESD Competence Framework* (2011) highlights what educators need for teaching sustainability: holistic approaches, envisioning change, and achieving transformation.

**Leadership for change.** Whereas transformative leadership is shared among many actors, competences and knowledge for sustainability transformations are widely lacking. Even though ESD policies in higher education exist all over Europe, professional training to develop institutional leadership and competences for transformative education rarely does (Mulà et al. 2017).

Transformative learning can enhance ESD because its very essence is to promote critical self-reflection, leading to different worldviews and to behavior change. The responsibility to ensure that such worldviews and behavioral change have a restorative foundation is ours, a responsibility that is at the heart of saguf’s mandate and activities.

## References

- Akademien der Wissenschaften Schweiz. 2017. *Sustainable Development at Universities Programme: Abschlussbericht*. Swiss Academies Communications 12/1. Bern: Akademien der Wissenschaften Schweiz.
- Balsiger, J. 2015. Transdisciplinarity in the classroom? Simulating the co-production of sustainability knowledge. *Futures* 65: 185–194.
- Brookfield, S. D. 2000. Transformative learning as ideology critique. In: *Learning as transformation: Critical perspectives on a theory in progress*. Edited by J. Mezirow. San Francisco: Jossey-Bass. 125–148.
- Freire, P. 1970. *Pedagogy of the oppressed*. New York: Herder and Herder.
- Herweg, K. et al. 2017. *Integrating sustainable development into higher education. Guidelines with in-depth modules for the University of Bern. Foundations*. Bern: Bern Open Publishing (BOP).
- Huckle, J., A. E. Wals. 2015. The *UN Decade of Education for Sustainable Development*: Business as usual in the end. *Environmental Education Research* 21/3: 491–505.
- Land, R., J. Rattray, P. Vivian. 2014. Learning in the liminal space: A semiotic approach to threshold concepts. *Higher Education* 67/2: 199–217.
- Lange, E. A. 2004. Transformative and restorative learning: A vital dialectic for sustainable societies. *Adult Education Quarterly* 54/2: 121–139.
- Mezirow, J. 2000. *Learning as transformation: Critical perspectives on a theory in progress*. San Francisco: Jossey-Bass.
- Mulà, I. 2017. Catalysing change in higher education for sustainable development: A review of professional development initiatives for university educators. *International Journal of Sustainability in Higher Education* 18/5: 798–820.
- O’Sullivan, E., A. Morrell (Eds). 2002. *Expanding the boundaries of transformative learning: Essays on theory and praxis*. New York: Palgrave.
- Singer-Brodowski, M. 2016. Transformative Bildung durch transformatives Lernen. Zur Notwendigkeit der erziehungswissenschaftlichen Fundierung einer neuen Idee. *Zeitschrift für internationale Bildungsforschung und Entwicklungspädagogik* 39/1: 13–17.
- Sterling, S. 2011. Transformative learning and sustainability: Sketching the conceptual ground. *Learning and Teaching in Higher Education* 5: 17–33.
- Sterling, S., I. Thomas. 2006. Education for sustainability: The role of capabilities in guiding university curricula. *International Journal Innovation and Sustainable Development* 1/4: 349–370.
- Tilbury, D. 2011. *Education for sustainable development. An expert review of processes and learning*. Paris: United Nations Education, Scientific and Cultural Organization (UNESCO).
- UNECE (United Nations Economic Commission for Europe). 2011. *Learning for the future. Competences in education for sustainable development*. Geneva: UNECE.
- UNESCO (United Nations Education, Scientific and Cultural Organization). 2014. *UNESCO roadmap for implementing the global action programme on education for sustainable development*. Paris: UNESCO.
- UNESCO. 2017. *One planet, one ocean*. <https://en.unesco.org/node/119665> (accessed September 8, 2017).
- WBGU (German Advisory Council on Global Change). 2011. *World in transition. A social contract for sustainability*. Berlin: WBGU.
- Wilhelm, S., R. Förster, U. Nagel, G. Wülser, C. Zingerli. 2015. Zukunft gestalten: Nachhaltigkeitskompetenzen in der Hochschulbildung. *GAIA* 24/1: 70–72.
- WWF (World Wide Fund For Nature). 2015. *Förderung von Multiplikator/innen im Bereich Umwelthandeln. Vorstudie*. Unpublished report. Bern: WWF.