

## 'I cannot be passive as I was before': learning from grassroots innovations in Ukraine

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*"Problems cannot be solved with the same mindset that created them".*

*Albert Einstein*

### Abstract

*The study explores learning processes and outcomes inside grassroots innovations that are emerging in post-Euromaidan times in Ukraine. The study analyses the assumption that this non-traditional education space can be adequate for sustainability transition learning and critical consciousness development. First, the study describes, connects, and operationalizes the concepts of critical consciousness, sustainability transition, and grassroots innovations. Then, it analyses two cases of grassroots innovations (two online sharing platforms), using these operationalized concepts. The results show that learning and critical consciousness development inside grassroots niches are much more connected to previous experience, such as participation in the protest event Euromaidan, than to inner niche learning interactions. While, the online platforms keep alive some of the aspirations that motivated people to become a part of the Euromaidan protest. In this sense, such grassroots innovations keep the values and priorities of the participants "alive" and ensure that the critical consciousness that was acquired does not simply slide backwards. Do shocking events like Euromaidan protest have to happen in order to accelerate learning about values of solidarity and responsibility, as well as to develop critical consciousness needed for sustainability transition? Despite the impossibility to completely answer this question, this study gave some tips, suggesting components of critical conscious development needed for this type of learning—dialog, reflection, action, leading to increase in efficacy and agency.*

Keywords: sustainability; transition; critical consciousness; Euromaidan; Freire



## Introduction

Authors that write about sustainability transition, defined as the process of shifting modern society to a more sustainable development path, increasingly talk about an urgent need for changes in the current global development system. Many of them have demonstrated the limits of economic growth and its connection to environmental and social devastations (Daly, 1973; Jackson, 2011; Martínez-Alier, Pascual, Vivien, & Zaccai, 2010; Schneider, Kallis, & Martinez-Alier, 2010). As an alternative, they emphasise the importance of social and environmental dimensions of development (*ibid*).

Mainstream thinking, however, embedded within the current economic growth system, make it almost impossible to imagine an economy that does not promote growth in terms of GDP, as much as a world without oil, mining, wars, plastic or inequality. Within this thinking, we can find people of different ages, from different regions of the world and with different political views (Parker, Cheney, Fournier, & Land, 2014). Thus, some scholars suggest that changes should start from the system of education, which would necessitate a shift in consciousness regarding sustainability issues (Ball, 2010; Lambert & David, 2008; Simonneaux & Simonneaux, 2012). This is particularly relevant for adult education that historically emerged from the struggle of common people on the pathway towards the consciousness change (Freire, 1973). According to Paulo Freire, the main idea behind education lay in the construction of a critical consciousness, meaning:

[...] depth in the interpretation of problems; by the substitution of causal principles for magical explanations; by the testing of one's own findings and openness to revision...; by refusing to transfer responsibility; by rejecting passive positions; by soundness of argumentation; by the practice of dialogue rather than polemics...; by accepting what is valid in both old and new. (1973, p. 18).

However, currently ‘adult education in Europe seems to have progressively forgotten its history made of fighting, resistances, creativities and it is transforming into an instrument of power only used for personal development and in the logic of the market’ (Lucio-Villegas, 2016, p. 2). This approach to education examines a person as a human capital or a human resource needed for the well-functioning growing economic system and thus is far from adult education as both a social and political project (Becker, 2009). Searching for alternatives to unlimited economic growth (as called for in some of the sustainability transition studies e.g. Jackson, 2011; Schneider, Kallis, & Martinez-Alier, 2010), implies learning that demands more than development as defined by the logic of the market, proposed by some adult education practices (Gelpi, 1984). As such, I turn my attention to the educators like Paulo Freire. A key question would be—where to find examples of this type of learning in the time of obsession with economic growth. Among several ideas, grassroots innovations in social economy are growing in popularity (Castells, 2013; Seyfang & Smith, 2007; Shepard, 2013; Sonnino & Griggs-Trevarthen, 2013). They are not driven by profit and thus can be seen as an important alternative to the modern economic growth system.

In this study, I take one more step towards a non-traditional dimension of learning studies and explore these innovations in post-Euromaidan Ukraine. By Euromaidan I mean a collective name for demonstrations and civil unrest in Ukraine, which began on the night of the 21<sup>st</sup> of November, 2013 with public protests in Maidan Nezalezhnosti (Independence Square) in Kiev. It started as a demand for closer European integration but turn into a protest against widespread government corruption, abuse of power and

violation of human rights in Ukraine. Despite numerous negative consequences, connotations and views about this event, it became a powerful symbol of people's desire to be agents of their own destiny (Bohdanova, 2014; Gatskova & Gatskov, 2015; Ogryzko & Pishchikova, 2014; Puglisi, 2015; Pytlik, 2015), in analogy to the Sidi Bouzid revolt in Tunisia, Tharir square in Egypt, Syntagma in Greece, Puerta del Sol in Spain, Zuccotti park in the USA and Gezi park in Turkey.

Currently, post-Euromaidan Ukraine is undergoing a series of social, political, and economic transformations and thus would not be typically considered a case for either sustainability or education research. On the contrary, this study's starting assumption is that different types of diverse and intense learning, including those relevant for sustainability, can be discovered in such conditions. Consequently, the aim of this study is to identify and explore these learning processes and outcomes. By bringing together case studies from Ukraine and grassroots innovation theories as well as the Freirian prospective on learning, this study analyses different types of learning outcomes, processes and their connection to critical conscious development as well as sustainability learning.

## Theoretical framework

### *Sustainability transition and grassroots innovations*

In this article, I use sustainability transition to describe the process of shifting modern society to a more sustainable development path. At the core of modern discussions on this transition is the question of economic growth (Daly, 1973; Jackson, 2011; Schneider et al., 2010). By recalling the destructive power of unlimited growth, described in the Club of Rome's charismatic publication *Limits to Growth* (Meadows, Meadows, Randers, & Behrens, 1972), Tim Jackson's comprehensive book *Prosperity without Growth* (Jackson, 2011), a provocative *Farewell to Growth* of Serge Latouche (Latouche, 2009) and thought-provoking *Aftermath: The Cultures of the Economic Crisis* (Castells, Caraca, & Cardoso, 2012) and recent ideas of *Laudato Si* by Pope Francis (Francis, 2015), these discussions call for the economic transformations at the core, by criticising high rates of growth that may simply not be possible or desirable anymore.

Many of these suggestions, such as degrowth (Latouche, 2009), steady state economy (Daly, 1973), beyond growth (Jackson, 2011), *bien vivir* (Gudynas, 2011) or *ubuntu* (Murithi, 2006), share core similarities, calling for focus on social and environmental well-being instead of economic growth, and thus, revitalizing old ideas of Nicholas Georgescu-Roegen (1993), who stated that the purpose of the economic processes should be the enjoyment of life and not simply GDP growth. The question, however, is how can we change the focus from economic growth to social and environmental well-being—when we are parts of current economic growth system?

Among many suggestions of such a transition, innovations are growing in popularity (Grin, Rotmans, & Schot, 2010). Innovations are argued to be important when a dominant (unsustainable) system cannot solve the underlying problems (Sanne, 2002). A number of studies on so called Strategic Niche Management (SNM)<sup>1</sup> have looked at the aspect of innovations for sustainability and revealed that accumulations of innovations in the protected niches might trigger widespread systems-change (Geels & Schot, 2007). The majority of the traditional SNM publications have been focused on the cases of efficiency improvements and technical innovations (Geels & Raven, 2006). Sustainability transition authors, on contrary, often criticized ideas of so called technical

optimism. They emphasize that 100% recycling is impossible (Huesemann, 2003), renewable energy would still require resource extraction (Wanner, 2015) and increases in efficiency do not always lead to decreases in consumption rates. A simple example is cars for which the improvement in resource use (km per litres) does not lead to lower energy use, but rather increase in kilometres - so called Jevons' Paradox (Alcott, 2005). Thus, improvements in the production processes (e.g. efficiency or recycling) and artefacts (e.g. products, services and infrastructure), without understanding of need to reduce consumption rates can lead to increases in resources consumption (Alcott, 2005). This means that if we want to effectively tackle sustainability problems, we need to aim at a change in understanding—in consciousness, not simply at a new technology development or efficiency improvement. This change is argued to be achieved in combination with values and behaviour changes by 'replacing the relationship of competition, fierce dispute, war of all against all—which, in current society, makes the individual a *Homini Lupus* (a wolf to other human beings)—with a relationship of cooperation, sharing, mutual help, solidarity' (Lowy & Betto, 2003, p. 334).

Regarding post-Soviet countries, this would also mean taking a more active position and recognizing one's responsibility, in order to replace a mentality of *Homo Sovieticus*—a sarcastic term used to describe a socio-cultural type of the average person in the Soviet Union that is characterized by a lack of initiative and avoidance of taking any individual responsibility (Gatskova & Gatskov, 2015; Levada & Golov, 1993; Shiller, Boycko, Korobov, Winter, & Schelling, 1992). That is why Seyfang and Smith (2007) turned the focus of SNM towards civil society and innovations in social institutions and arrangements instead of the traditional technical innovations approach and started to use grassroots innovations niches as a main subject of studies. They defined grassroots innovations as: 'innovative networks of activists and organisations that lead bottom-up solutions for sustainable development; solutions that respond to the local situation and the interests and values of the communities involved' (Seyfang & Smith, 2007, p. 585).

Different lessons can be derived from the grassroots innovations niches (e.g. Hoogma, 2002). They can be basic, such as social or technical requirements for development of solar water heating system. Such 'first-order' learning can be supplemented by 'second-order' learning that generates lessons about the alternative socio-cultural values underpinning the niche (Hoogma, 2002). In contrast to first order learning, second-order learning takes a step back and questions the values and assumptions that frame the configuration of the system, and draws deeper reflections about it (Smith, 2007). For example, work-sharing grassroots innovations may initiate a discussion about different work and labour valuation (Knight, Rosa, & Schor, 2013), community currencies might provide alternatives to the financial system tools (Dittmer, 2013). In this sense, such niches create learning spaces that nurture critical thinking and innovative actions. These types of collective learning may lead to transformations in the systems that would not be achieved by individuals alone (Young & Middlemiss, 2012). This is an essential difference from individual-consumer learning and following behaviour change (e.g. buying organic from the supermarkets), so often promoted by mainstream sustainability. As argued by Seyfang (2005) 'citizenship of the market' through sustainable consumption does not challenge the dominant power structures of the economic and political system; while collective change can possibly make a difference. Consequently, if second order collective learning is involved, and a broad network of users and outsiders are embedded, then the niche may contribute to the formation of a new system (Smith, 2007). In this sense, grassroots innovations can have

ambitions beyond the micro-level. This is an important point since a small assembly can trigger wider processes towards social change.

Previous academic research has examined some grassroots innovations that tackle social exclusion and unemployment (Williams et al., 2001); localise economies and improve resilience (Castells et al., 2012); build social capital and civic engagement (Kingsley & Townsend, 2006); promote sustainable consumption and production (Pearson, Pearson, & Pearson, 2010); as forms of alternative social movements, civil resistance and civil disobedience (Shepard, 2013) and innovative niches (Seyfang & Smith, 2007; Smith, Voß, & Grin, 2010). However, there have been very few examinations of grassroots innovations as learning for sustainability niches and spaces for critical consciousness development. This is where the contribution of this article lies: to examine grassroots innovations learning potential.

### *Theorizing learning*

There are many theories about what enables us to know or to develop knowledge (e.g. Bandura, 1977; Latour, 2005; Piaget, 1976; Vygotsky, 1978). There are also a wide range of ideas coming from many different disciplines, about what constitutes learning. In general, learning theories are a complex and rich terrain of ideas that can be organised in different ways and each grouping would tell a different story (see e.g. Blackmore, 2007). Of the many theories of how learning happens or can happen, some are more relevant to the contexts of learning about sustainability transition than others. As discussed earlier, learning for sustainability transition would require a shift in consciousness regarding sustainability issues and creation of alternatives to unlimited economic growth. Vision of alternatives to any problematic system, whether economic or political one, starts from the understanding of the existing hegemony (Gramsci, 1995) or oppression, problems in the system—that is the core of critical consciousness (Freire, 1973). Learning for critical consciousness, thus is the most relevant approach to be used in the context of this study.

In his book, *Education for Critical Consciousness*, Freire (1973) defines three stages in attaining critical consciousness, 'semi-intransitive consciousness', 'naïve transitivity' and 'critical transitivity' (see figure 1, p. 232). In a semi-intransitive stage, the individual is not focused on any other matters other than those involved with the basic elements of survival and are not capable of effectively comprehend other challenges. The majority of poor, dispossessed or uneducated individuals may remain in this stage due to their focus on meeting basic needs. Freire (1973) observes that when oppressed groups begin to respond to inquiry about their existence, increase their ability to discuss their world amongst themselves and with those outside their social group, they become transitive and no longer just react to a limited sphere of subjects but instead begin to react to a more general sphere of specific problems. The second stage of critical consciousness is, thus, naïve transitivity, which Freire characterizes as including behaviours such as over-simplification of problems, under-estimation, a tendency to gregariousness, a disinterest in investigation, fascination with magical explanations of reality and practice of polemics. At the same time, it is a step forward from the limited focus on one's own basic needs satisfaction. In the final stage, critical transitivity, individuals begin to test their own understanding of problems, attempt to avoid distortion of problem perception, avoid preconceived notions and reject passivity by practicing dialogue and action. These individuals are receptive to new ideas without rejecting old ideas, they act and thus, promote social change. This is something Freire calls 'Critical Consciousness'. At the same time, Freire also states that individuals can

develop a fanaticized consciousness instead of critical consciousness (see figure 1, p. 6). These individuals would ‘act more on the basis of emotionality than reason; ... and tragically leads to irrationality, defeat, objectification, passivity, fear of freedom, and the loss of reflective action among the people’ (p. 19-20).

In analysis of current social movements, English & Mayo (2012) also warn about possibilities of emergence of radical groups and practices that can be seen as examples of fanaticized consciousness development. They assume that this is a result of limited learning at the stage of naive transitivity (Ibid). According to the authors, learning might not occur when there is a lack of intentionality and effort to analyse and criticize the activity. Moreover, as mentioned by Freire (1973), learning is a dynamic process, rather than a static phenomenon. Critical consciousness can be obtained but also can be lost. This is why the arrows are two-way in the figure 1. Also, this is why it is important to understand the processes behind critical consciousness development and possibly retention.



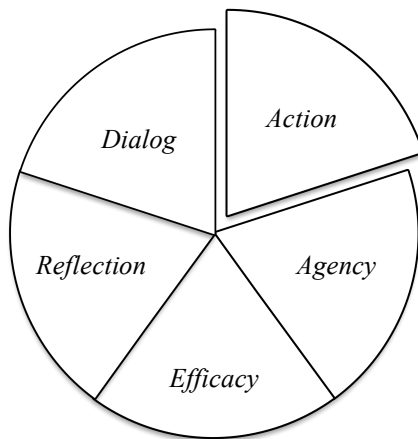
Figure 1. Stages of critical consciousness development according to Freire (1973).

The concept of ‘critical consciousness’ is a useful theoretical base for this study. At the same time, however, the ideas of critical consciousness beg the question of the operationalization—how the process of learning and critical consciousness transformation is actually happening and what are the components of critical consciousness development. According to Freire’s model, ‘praxis’ (meaning action and reflection) and ‘dialog’ are equally important components of learning process leading to the development of critical consciousness.

Dialog approach to learning views learners as subjects in their own learning. The importance of this approach stems from the idea that knowledge is socially constructed and not something that exists outside of language and the social subjects who use it. Learning, obtaining knowledge and making meaning is thus a social process rather than the work of the isolated minds; it thus cannot be divorced from learners’ social context that are experienced through dialog. Paraphrasing Vygotsky (1978), this learning process originates in, and must therefore be explained, as products of social interaction. At the same time, according to Freire, it is not enough for people to come together in dialogue in order to gain knowledge of their social reality and develop critical consciousness. They must *act* together upon their environment and after critical *reflection* upon their reality and so transform it through further action and critical reflection—so called ‘praxis’. Thus, in addition to dialog or social learning or interpsychological learning, as called by Vygotsky (1978), there should be intrapsychological learning, on the individual level through reflection. Consequently, *action*, *reflection* and *dialog* constitute main processes of learning needed for critical consciousness development, according to Freire (1973).

What is less clear is if these are sufficient to develop critical consciousness? Watts, Diemer, & Voight (2011) for examples, questioned whether critical reflection is sufficient for action. Considering an example from Freire’s (1973) book, *Education for Critical Consciousness*, ‘to every understanding, sooner or later an action corresponds’ (p. 44). According to the author, once we would perceive a challenge, understand it, and

recognize the possibilities of response, we would act. The phrase ‘recognizes the possibility of response’ suggests that psychological factors influence civic and political behavior (Watts et al., 2011), meaning particular leave of agency and political efficacy is needed to start acting. Together, the ideas above could suggest components of critical consciousness to be—*dialog, reflection, political efficacy* (the perceived ability to affect sociopolitical change), *agency, action* (see figure 2, p. 233). These components are connected and together interplay in iterative ways. Thus, for example an action can be followed by reflection and vice versa.



*Figure 2.* Components of critical consciousness development

All together these components can create unlimited circles of learning (or simply, experience). Learners would bring prior knowledge (different collections of circles) into a learning situation, which in turn forms the basis for construction of new knowledge. Upon encountering something new, learners would first reconcile it in some way with their previous ideas and experiences. This may mean changing what they believe, expanding their understanding, or disregarding the new information as irrelevant. Their learning therefore has subjective and affective (emotional) elements that come from interpreting data from their environment in the light of their own experience (Wadsworth, 1996). Schematization of the complexities behind critical consciousness development and also identification of vital components of critical consciousness allows to operationalize the concept of critical consciousness. This enables a more detailed and structured analysis of the critical consciousness development observed in analysed empirical cases, and can further lead to more in-depth theoretical discussions.

## Methodological framework

### *Cases selection*

The list of grassroots innovations from Ukraine was created through online search between August 2015 and December 2015. The search was based on main criteria of grassroots innovations such as described by (Seyfang & Smith, 2007, p. 592):

- Based in the social economy (rather than the market economy);
- Focus on social and institutional innovation (rather than technological);
- Driven by social need and ideological commitment (rather than profit-seeking);
- The ‘protected space’ which supports their development is often one of alternative values and culture (rather than market regulation and subsidies);

- Constituted by diverse organisational forms such as cooperatives, voluntary associations, and informal community groups (rather than firms);
- Rely on grant funding, volunteer labour, mutual exchange and only limited commercial activity (rather than principally commercial income)

The collection of information about non-registered grassroots is difficult, since there is no single official or unofficial database that lists these initiatives. Thus, social media webpages as well as social forums, relevant events and meetings, combined together with snowball sampling by recommendations from contacted social initiatives were used in order to create a list of initiatives. This approach is an effective means to increase sample size while providing a robust snapshot of the object of study (c.f. Lindlof & Taylor, 2002; Neuendorf, 2002). This approach allowed of the identification of one hundred different grassroots innovations in Ukraine from different regions.

The next part of the research consisted of selecting two cases to represent grassroots innovations in the area of social economy. Such innovations are not driven by profit and thus can be seen as an important alternative to modern economic growth system, something that sustainability transition scholars are calling for. After careful selection process, Plushkin and Murahy online platforms were chosen to represent these alternative economy innovations, since they are based on mutual exchange and sharing. The case study approach allowed focusing the empirical study even more by concentrating on particular details of case in relations to niche- and learning theories. Semi-structured interviews with open-ended questions were used as a method to allow for an in-depth analysis. Twenty-five interviews were conducted during December 2015 to July 2016. Respondents were organizers and participants of the analysed grassroots innovations. The selection of respondents was based on the idea of presenting both organizers' and participants' points of views<sup>2</sup>. Organizers were contacted directly; while participants were selected from Murahy and Plushkin online web portals. Interviews enabled the discovery of information which would not be possible to obtain through written materials about grassroots innovations (such as interviewees' personal learning outcomes). This type of information is necessary to understand the complex picture of the learning inside grassroots innovations in Ukraine.

Questions were centred on learning outcomes (what has been learned) and processes (how it has been learned). The learning process was further analysed using Freire's (1973) stages (semi-intransitive, naïve, critical or fanaticized) and elements (dialog, reflection, action, efficacy and agency) of critical consciousness development (see figure 3, p. 234).

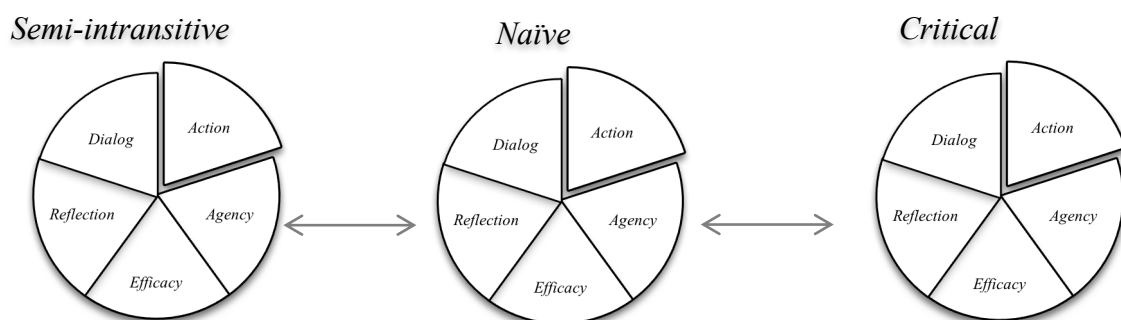


Figure 3. Stages and components of critical consciousness development.



### *Case descriptions*

#### Plushkin

Plushkin is an online platform that allows users to exchange products among each other<sup>3</sup>. Members can post an offer on an item that they no longer require; while other members can suggest an exchange. Members can contact each other directly on this platform and arrange the exchange, either by post or in person. A diverse range of items are exchanged, including cloth, books, furniture, mobiles, computers and cars—just to give some examples. Now the platform offers the possibility to exchange not only stuff but also services. For example, singing lessons can be exchanged for a dress or English lessons. The rules of transactions are decided and controlled by the participants. Plushkin was created in 2014, by two activists concerned with global environmental degradation, economic crisis in Ukraine and desire to help the local community. It started as a small online group on Facebook. Today, the platform has more than one hundred thousand users actively engaged in the transactions in different regions of Ukraine<sup>11</sup>.

#### Murahy

The online platform Murahy [translation—ants] is another grassroots innovation project<sup>4</sup> that allows selling no longer needed items, while automatically redirecting the income to social initiatives. This platform is not restricted to any territory and allows people with different incomes to contribute to the common good. For example, people from rural areas without high income can place an ad selling few kilos of apples (that would be spoiled otherwise), while those with the opportunity to travel can pick up those apples. This transaction would be made without physical exchange of money between seller and buyer; funds are paid by the buyer online and are automatically directed to social initiatives. The initiative group of Murahy was created in 2015, out of Euromaidan activists that were involved in resource generation during the protest event and felt the responsibility to continue the idea of mutual help among people. Thus, the online flea market idea was initiated with a vision to create a mutual help platform that would completely rely on the civil responsibility of community members and would solve environmental concerns at the same time. The platform received a lot of attention from the public and from the initial few participants; about 4000 people have joined the online platform today<sup>5</sup>.

### Results

#### *Learning outcomes*

Wide varieties of different learning outcomes were reported by grassroots innovations participants (see table 1, p.237). Participants from the same initiative often stated different learning outcomes. For example, some participants of Plushkin talked about community building and solidarity; while others focused on sustainable production and consumption; some on economic survival, and others on alternatives to the current economic system.

Despite such a diversity of learning outcomes, it is possible to describe them as either first- or second-order learnings; using the classification of Hoogma (2002). Learning about ability to “recycle” by selling (Murahy) or exchanging (Plushkin) unneeded belongings in order to generate resources to help others (Murahy) or our own family (Plushkin) was a first-order learning outcome, shared among participants (see

table 1, p. 237). The reflection on actions of either selling or exchanging stuff online, further lead to great diversity of social, environmental, and economic second-order learning outcomes reported by respondents. Regarding social learning, respondents spoke mainly about solidarity, though the lens of a community crowd funding (Murahy) or community self-help (Plushkin).

Many stressed the importance of a strong community for solving its inner problems without asking for external and often top-down help; stressing the lack of trust in governmental structures, and referring to the political crisis in the country. In a way, they connect solidarity with political autonomy. ‘people solve their own problems, without going to the state or some foundations’, as was mentioned by one of the respondents. An important observation was that most respondents of both organizations connected these learning outcomes with previous experience—mainly participation in Euromaidan. As was mentioned by the respondent from Plushkin:

[...] after Euromaidan, I have realized that sharing is normal practice [...] not only for beggars. Thus, it was ok for me to join [Plushkin]. I further learned here [Plushkin] that sharing can be important part of everyday life.

The respondent from Murahy commented on it from a responsibility perspective:

‘[...] there [Euromaidan] I felt that I am a part of this bigger community that need my help [...] and if I don’t help who will [...] and who will later help me?’

Respondents from Plushkin were more concerned with the economic survival part of exchange, while respondents from Murahy were in general more concerned with the social help and solidarity parts of exchange. At the same time, environmental learning outcomes were mentioned by respondents from both initiatives. All respondents in some way or another questioned the ideas behind the current throw-away culture:

[...] a great alternative to simply throwing away things and, thus, polluting’, was commented by the participants that joined Murahy because of the social considerations or ‘why do we just keep throwing things and after polluting our environment [...] why it is so important for us to get new things without caring for an environment.

This was mentioned by the respondent from Plushkin who joined the grassroots initiative mainly because of economic considerations. Several respondents made steps forward in this reflection and connected throw-away culture with the limitations of the current economic system. Participants from Plushkin were mostly talking about alternatives to the current economic system, as for example, stated by one of the respondents: ‘[...] as an alternative to constantly buying things from supermarkets and supporting the riches’. Respondents from Murahy focused more on the importance of non-materialistic values that are ‘falling out of the current economic system’.

Despite being critical of the current economic system, none of the participants directly questioned economic growth *per se* or talked about economic autonomy or alternatives to neo-liberal regimes, as described by sustainability transition authors. On the contrary, the majority of Plushkin participants reflected on the action of sharing as an act of economic surviving in the first place, stressing the harsh conditions of current economic crisis.

		Murahy	Plushkin
First order learning		Learning about ability to “recycle” by selling unneeded belongings in order to generate resources to help others	Learning about ability to “recycle” by exchanging unneeded belongings in order to generate resources for own family’s quality of life improvement
Second-order learning	Social	Solidarity (community funding); Responsibility	Solidarity (community self-help); Sharing
	Environmental	Limited Questioning the throw-away culture and pollution	Limited Questioning the throw-away culture and pollution
	Economic	Importance of non-materialistic values	Alternatives to current economy practices Mainly—economic survival

Table 1. Learning inside analysed grassroots innovations.

*Learning processes*

During the interviews, the majority of the respondent connected current learning outcomes with previous learning experiences. Some respondents mentioned learning about problems in e.g. the environmental or economic system and need of social economy by watching movies, reading or listening to lectures— mainly Plushkin respondents. At the same time, all respondents were more focused on describing wide variety of learning outcomes connected to participation in Euromaidan protest, even if asked about learning inside a grassroots innovation niche. They described learning crowd funding, management, communication and organizational skills during the protest (first-order learning) needed for future initiative creation/engagement. They often referred to the protest as a “school” of activism or a contact making place.

At the same time, learning about *personal responsibilities* during the protest was the most often mentioned learning outcome (22 out of 25 respondents) leading to further initiative creation/engagement (second-order learning). Many of the respondents took part in the everyday life support system of the Euromaidan protest city. They were acting and interacting with other protesters while performing basic functions e.g. cooking food, brining clothes?, cleaning or simply being at the Maidan square. The second most mentioned learning outcome (19 out of 25 respondents) was *solidarity learning* (using words as mutual help, cooperation and sharing), ‘by working together we understood what togetherness means’, as was commented by one of the respondents. Many respondents mentioned learning about solidarity as basic to a well-functioning society. For them, Euromaidan protest city became an example of such a society.

This worked as some kind of anthill; everyone knew what to do without anyone telling how to do it. This small independent republic with thousands of permanent residents [protesters] and its own leadership structure, budget, border guards, self-defence units, open university, mail and health services, entertainment programs, housing (hundreds of tents), and systems for distributing and even producing food. This was mentioned by the respondent from Murahy who added ‘I have seen what cooperation really means’. According to the respondents, the learning process continued also in the post-Euromaidan times. Most of them reflected on participation in the protest time. Some respondents mentioned reflecting about their own mistakes or the problems of the protest itself, such as ‘I don’t think protests are great things, it is not constructive way of solving the problems’. At the same time, despite these critiques all respondents

mentioned the importance of their participation in the protest and its effect on their perception of everyday reality. After post-Euromaidan reflection, respondents started to recognize increased political efficacy and agency:

I saw that a corrupted old government was leaving and I thought if this is possible—than everything else is possible. Thus, everyone can make a difference including me [...] so I continued by joining the initiative [Murahy].

One of the key aspects of learning and reflecting in this stage was the ability to transfer knowledge gained in protest to the real post-protest time activates. ‘There was no competition and there was no need for competition [referring to Euromaidan], I continued in the same way by creating Murahy’. Another respondent added:

I don’t think protests are great things, it is not constructive way of solving the issues [...] but we had no other ways [...] now we have to develop more constructive ways, like joining these initiatives [referring to Plushkin].

Thus, the act of creation or joining initiatives was clearly connected to previous experience (mainly participation in Euromaidan) for the majority of the interviewees. One of the respondents commented:

I cannot be passive as I was before Euromaidan. Coming back to ordinary life and forgetting everything is not an option in my family. We are searching ways how can we contribute to the change initiated [...] how can we make better society that is based on mutual help and support, democracy and transparency [...] and we search the ways we can learn about it more.

Similar to this respondent, many participants mentioned eagerness to learn and explained this as a reason to join other grassroots initiatives in addition to Plushkin or Murahy. Inside online initiatives as Plushkin and Murahy, most of the participants mentioned learning by doing as a main mechanism—as respondent from Murahy commented ‘I learned this new tool for recycling just by trying it does not matter that I was interested only in social help ideas’. Dialog among participants is of course limited to conversations about details of exchange transaction. Instead, many mentioned learning though reflection on their actions. As one respondent from Plushkin stated ‘I started just because of economic interest and learned that there are new tools for recycling’. Thus, by acting and reflecting on an action, respondents of the online platform were able to continue the learning process.

## Analysis

### *Learning processes*

The study identified that learning is a complex process that develops in the different stages of participants’ life. While, for example, learning for environmental and economic sustainability aspects happened inside grassroots innovations niches, an important part of niche related learning also has happened prior to engagement/creation of the initiatives. The respondents often connected learning with previous events—mainly with Euromaidan protest. This support the ideas of Wadsworth (1996), that upon encountering something new, learners first reconcile it in some way with their previous ideas and experiences (in analysed cases—Euromaidan). The learning in analysed cases, thus, has subjective and affective (emotional) elements that come from

interpreting data in the light of their own previous experience such as Euromaidan. Despite the fact that initial intent of this research was to focus on the learning inside grassroots innovations niches, it became more important to look at the development of the critical consciousness as the whole, rather than the parts emerged inside these niches.

#### Naive transitivity

From Freire's perspective, Euromaidan's participation stage can be seen as a naive transitivity (see figure 3, p. 234). It is already a step forward from semi-intransitivity of consciousness, where people are only concerned with individual surviving. In the analysed cases, participants of the Euromaidan were able to see beyond worries about personal problems and through dialog and actions with others, they established a protest camp. This camp became a space where they were able to share and analyse their individual problems. The new vision of well-functioning society was born in this camp, through dialog and action (experience) together. Several learning outcomes emerged from experiencing/practicing these ideas. Among them, the majority of the respondents mentioned first order learning outcomes (such as teambuilding, organization skills, networking and similar) as well as second-order learning (solidarity, sharing and responsibility).

Examples of reported personal responsibility, caring, sharing and solidarity are numerous at this stage. This shows a big step made by the respondents—from being concerned with own personal surviving or a *Homini Lupus* (Lowy & Betto, 2003) or *Homo Sovieticus* (Levada & Golov, 1993) identities to naive transitivity as discussed by Freire (1973). It is important to stress the collective dimension of knowledge and learning at this stage, so called interpsychological learning by Vygotsky (1978)—learning and transforming the world together, 'togetherness' as was mentioned by the participants.

Learning at Euromaidan was not simply the assimilation and accommodation of new knowledge; it was the process by which learners were integrated into a Euromaidan knowledge community—the utopic city that they had created. Most of the respondents stated learning through dialog and action together in this utopic world (see figure 4, p. 240). This resonates with Vygotsky (1978) arguments that the learning process originates in, and must therefore be explained as a product of social interactions. This also goes in line with Freire's ideas stating that things such as responsibility is not something that can be acquired intellectually, but can only be learned through experience and dialog (see figure 4, p. 240). Consequently, dialog and action (*ibid.*) were the main learning processes at the Euromaidan protest time. Reflection as well as increased efficacy and a sense of agency were not mentioned by the respondents at this stage.

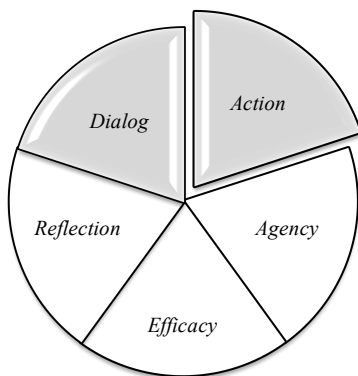


Figure 4. Elements of critical consciousness development observed during the Euromaidan protest.

### Reflection

After Euromaidan was over, most of the respondents reported reflecting on the actions of taking part in the protest. This can be described as a personal internal reflection that Vygotsky (1978) refers as intrapsychological learning. This means that participants of Euromaidan first learned on the social level (interpsychological) and, later on, on the individual level by reflecting (intrapsychological). This stage seems to be integral for all the respondents. It defined how the knowledge acquired during the process was used afterwards. From a Freirean perspective, this is a stage where participants' knowledge can either turn into critical consciousness which would result in a more in-depth analysis of problems and an increase in political efficacy and agency (e.g. creating or joining initiatives) or can lead to fanaticized consciousness that is even more distanced from reality or returning to naive transitivity (see figure 3, p. 234). In this study, respondents reacted to the internal reflection by creating/joining grassroots initiatives. Most<sup>6</sup> of the respondents mentioned increased political efficacy and agency as an argument for this. Thus, by acquiring a critical level of consciousness and by feeling empowered to act, participants were able to join or create grassroots initiatives. The learning at this stage thus can be described by active reflection and increased level of efficacy and agency (see figure 5, p. 240).

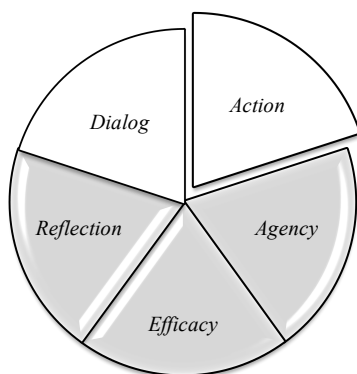


Figure 5. Elements of critical consciousness development observed during the post - Euromaidan reflection stage

### Action or critical consciousness

The learning development process did not stop at the stage of creating/join of initiatives. Rather, a new iterative circle of learning and critical consciousness development began, based on the previous experience. Participants reported numerous learning outcomes: tools to grow food (first order learning) or cooperation (second-order learning). Among second order learning, this study identified social, economic and environmental outcomes. While many participants still referred to the solidarity and personal responsibility learned from Euromaidan, they have already developed a deeper understanding of these concepts. It allowed participants to make sense of this knowledge and further apply it in a constructive way, as one of the respondent mentioned ‘I have seen what cooperation really means. There was no competition and there was no need for competition [...] I continued in the same way by creating Murahy’. Thus, we can see critical consciousness in action at this stage. The specifics of the online initiatives (online platform), limits possibilities for participants engage in a face-to-face dialog with each other. That is why learning through dialog was not identified at this stage. Similar not so many respondents were talking about agency and efficacy acquired by participating in online initiatives (see figure 6, p. 241).

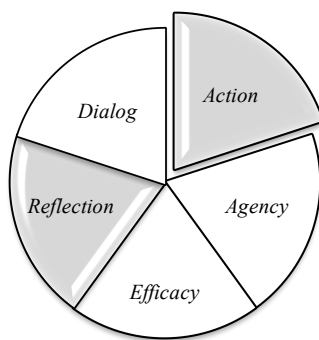


Figure 6. Elements of critical consciousness development observed during grassroots initiatives’ participation stage

### Learning for sustainability transition

In this study, I observed a number of different first and second-order learning outcomes among respondents from two grassroots initiatives, as was suggested by SNM’ scholars e.g. Hoogma (2002). These outcomes were consistent with sustainability transition literature (e.g. Francis, 2015; Jackson, 2011; Schneider et al., 2010). Participants spoke about values described in such literature—solidarity, responsibility, importance of sharing and mutual help. In addition, they were involved in the practical implementation of the sustainability transition ideas. Participants were exchanging or selling unwanted items and thus, reducing waste, supporting societal development, and practicing alternative mechanisms of economic relation; something that scholars from academia have been struggling to promote theoretically since at least the 1970s, when *Limits to Growth* was published (Meadows et al., 1972). More important, participants expressed concerns and values that go beyond their everyday personal survival. They questioned the existing social interaction system and recognized their own responsibility for the way things are. As one participant mentioned ‘I cannot be passive as I was before’. All together these can be seen as signs of critical consciousness emergence described by Freire (1973) and transformation of a *Homini Lupus* and *Homo Sovieticus* that is an important part of sustainability transition. One would also assume that participants of

social economy initiatives are particularly concerned with the economic aspects of sustainability transition. However, this study did not identify a deeper critique of current economic systems or a reflection on unlimited growth that was argued to be a vital part of the sustainability transformation. Rather, some respondents of Plushkin were more concerned with their own economic surviving; something that Freire would refer to as semi-intransitivity.

Indeed, practising sharing, exchanging and alternative social values such as solidarity and responsibility in these cases did not arise from dissatisfaction with the current economic system; but from previous social experiences acquired during Euromaidan participation. This explains the main focus of participants on the social aspects of sustainability transition. While not being the most productive space for learning, the online platforms do keep alive some of the aspirations that motivated people to become part of the Euromaidan protest. In this sense, such social initiatives can reaffirm solidarities. Keeping in mind that critical consciousness can be obtained but can be lost; reaffirming function of social initiatives seems to be vital. The online platforms keep the values and priorities of the participants “alive” and ensure that the critical consciousness that was acquired does not simply slide backwards. Without real life practices, people can turn cynical or radical and then gradually turn away from the ideas and values that inspired them. This means, finding ways to enact these values along the lines of the social economy projects keeps the critical consciousness ticking away.

However, it does not mean that deeper learning and development of profound understanding of the economic aspect of sustainability transition is not feasible with time in the analysed cases. It is already possible to observe some initial leanings in this direction. For example, participants from Plushkin are questioning a need to ‘constantly buying things from supermarkets and supporting the riches’; while a respondent from Murahy talks about the importance of non-materialistic values that are ‘falling out of the current economic system’.

## Conclusions

The study confirms that learning for sustainability transition can be found in a context that is not seen as educative or as learning bodies—grassroots innovations niches. This includes learning both values, such as solidarity and responsibility; as well as practices for sustainability transition, like sharing and exchanging mechanisms of economic relation. In addition, study has identified signs of consciousness transformation from a *Homini Lupus*, *Homo Sovieticus* and being preoccupied with only one’s day to day surviving to critical consciousness, as described by Freire. This study revealed that grassroots innovations niches can be a place where this critical consciousness can be reaffirmed, nourished and possibly further developed. Learning inside grassroots initiation niches is much more connected to previous experience and current external landscape, than to inner niche learning interactions. These findings once again prove experience based learning theories. In particular, the importance social protest event—such as Euromaidan was identified; showing its effect on participants’ actions and reflections. But questions emerge: do shocking events like Euromaidan protest have to happen in order to accelerate learning about values of solidarity and responsibility, as well as to develop critical consciousness needed for sustainability transition practices creation?



Despite the impossibility to completely answer this question, this study gave some tips, suggesting components of critical consciousness development needed for this type of learning—dialog, reflection, action, leading to increase in efficacy and agency. If dialog, action and reflection together with an increased sense of agency and political efficacy are present; there are high chances for critical consciousness development. Critical consciousness can further lead to changes both in values and practises of the grassroots innovations participants. These types of collective changes are argued to have a potential to challenge the dominant power structures of the political, social and in some way economic system (Young & Middlemiss, 2012). This is something 'citizenship of the market' cannot do (Seyfang, 2005) but collective change can possibly make a difference. The analysed cases are still very "new" (created in 2014, 2015) and thus did not show a great effect in terms of social change, especially regarding challenging existing economic growth paradigm. However, they did exhibit a potential for critical consciousness development needed for sustainability transition that can be an inspiration for others.

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### Notes

<sup>1</sup> SNM is a term used to describe management approaches that are developed to support the societal introduction of radical sustainable innovations. Usually it is focused on technological innovations, such as wind energy or biogas, transport systems and ecological food production.

<sup>2</sup> However, this study is primarily explorative in nature and does not aim to provide a representative comprehensive analysis of all the positions and actors involved in grassroots innovations in Ukraine. Rather, it attempts to pinpoint general trends in the selected examples.

<sup>3</sup> <https://plushkin.org>, accessed January 2016.

<sup>4</sup> <https://www.facebook.com/murahy/>, accessed January 2016.

<sup>5</sup> <http://murahy.com>, accessed May 2016.

<sup>6</sup> It is important to note that this study focused only on grassroots innovations' creators and participants who after reflecting on Euromaidan participation decided to act by joining these innovations initiatives. Thus, it represents only linear critical consciousness development trajectory. It did not cover other Euromaidan protesters who probably did not experience increase in agency or political efficacy or turned into less constructive activities.

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