Quantity and Social and Solidarity Economy: A quest for appropriate quantitative methods

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Abstract

The paper sets the conceptual and practical framework for the use of quantitative methods in research in Social and Solidarity Economy (SSE). The quantitative methods we have in economics at the moment are not appropriate for understanding SSE in terms of quantity and this creates limitations for understanding the activity but mostly for knowledge exchanges between researchers and practitioners. The quest for appropriate quantitative methods has been an emergent trend in several fields of activism, policy making and research, like gender equality, indigenous environmental knowledge but mostly sustainability, both environmental and social. Within this general framework, the papers focuses on SSE activities that do not use official currency, like: parallel currencies, exchange networks, free bazaars and online networks, and various solidarity initiatives, like social kitchens, social clinics or collective cultivations. The people involved in the SSE choose to explore quantities that go unnoticed in mainstream quantitative methods. Their discourse and practice is full of quantitative understandings, which are basic for the entire activity to take place and be successful in its terms, but they elude completely the quantitative understandings and methods we have at the moment in economics or other social sciences. The paper draws examples from international literature but mostly from the author's research on this type of economic activity in Greece. The author has experimented through her research with the concept of quantity, the alternative ways of collecting quantitative data and constructing questionnaire/survey questions and the possibilities of using other approaches of quantity in economic research.

Keywords: quantitative methods, Social and Solidarity Economy, grassroots initiatives

JEL codes: B4, B5, C00, P4, P5

1. Introduction

The paper sets a conceptual and practical framework for the use of quantitative methods in research in Social and Solidarity Economy (SSE). Using examples from field research findings and from social movements, I explore how other perceptions of quantity and measurement are practiced within a variety of communities that (try to) defy the settings of the mainstream economy.

The main issue is that the quantitative methods we have in economics at the moment are not appropriate for understanding SSE in terms of quantity. This lack of appropriate quantitative methods creates various limitations for deepening our knowledge of SSE. It also prevents us from improving the knowledge exchanges with SSE activists and practitioners, as well as with other decision-makers and stakeholders of the SSE.

The next section presents the quest for appropriate quantitative methods in literature and practice, and section three examines the SSE initiatives that do not use official currency and constitute the subject matter of this paper. Section four examines the quantitative tools that are available till the moment for understanding the quantitative aspects of those grassroots SSE initiatives and section five presents some explorations in appropriate quantitative methodologies. How the field research findings create a need for appropriate quantitative tools is discussed in section six and the directions for further research are presented in section seven.

2. The quest for appropriate quantitative methods in literature and practice

Feminist theory has been the most prolific source of critique concerning how quantity is perceived in contemporary capitalist societies. In patriarchal societies particularly in capitalist patriarchal societies, quantification and valuation of economic activity is constructed in ways that erase essential contributions to the survival of human societies. Work for production and social reproduction, usually done by women and other discriminated social groups, is considered to lack value. When it is accepted that it has value(because the same work needs to be paid for in the market), this value is the minimum possible, leading whole sections of the labouring population to underpayment, poverty, overwork and deplorable working conditions. Similarly, the contributions by nature are erased through the same technique, i.e. attributing no or very low value to nature's offers and work, and through the assumption that nature is a passive entity that requires human work to become productive.

This assumption is also assigned to women and other exploited social groups, through their association with nature. The poor, the colonised peoples, the indigenous peoples, the people who do not abide with the heteronormative rules of patriarchy, are considered unable to produce adequately on their own, but need the intervention, supervision and management by the "truly productive" economic man (middle class, white/Western European descent, heteronormatively behaving, without social responsibilities) who alone is "burdened" with making nature and the subordinate groups productive. Through this construction, the labour of the economic man is deemed productive, i.e. creates and is entitled to value and accumulation of wealth (Waring 1999; Won Werlhof 2007; Picchio 2005; Scholz 2014; Dalla Costa & James 1975; Federici 2013; Eisenstein 1979; Bennholdt-Thomson et al 1988; Albritton 2003).

Environmental and ecological economics have tried to address those issues, each field with their own assumptions, which are linked more or less to how capitalist patriarchal economies can cope with the fact that environmental degradation and the abuse of nature cannot be resolved through the contemporary economic system. Although ecological economics have taken a more radical stance of critique to capitalist profit-seeking at the expense of nature, they also ended up to understand values of nature as possible to be calculated in human currency. They were under pressure to do this in order to have natural resources compared to the values of other socially-constructed assets. The ecological services approach and the notion of natural capital took the argument even further, allowing for metricisation of nature according to the quantifications that mainstream economics and capitalist markets recognise (Daly and Farley 2011; Burkett 2006; Goerner et al 2009).

Approaches full of potential, though, come from local communities who have a strong tradition of non-capitalist and non-Western European societal backgrounds and histories, like the societies in New Zealand, Bhutan or Canada. In some cases, they use values other than capitalist and/or patriarchal ones as prominent criteria to assess economic activity. In other cases they try to combine local values with mainstream (monetary) valuations. Social movements who resist the degradation of their areas by extraction industries also enter boldly the discussion of what value is (Anielski 2007; Anielski and Soskolne 2002; Alkire et al 2012; Colman 2008; MacPherson 2014; Sotiropoulou 2016c).

In all those cases, we have seen attempts to represent quantitatively and account for values that are marginalised in the mainstream economy. My position is for using other valuations than the capitalist-patriarchal ones. From our historical experience so far, devaluing and/or monetising nature or basic reproduction activities led to a severe social reproduction crisis on global level and have not resolved environmental problems that were supposed to be efficiently handled through market-based solutions (Barker & Feiner 2010; Caffentzis 2002; Ehrenreich 2002; Kurz 2014; Peterson 1997; 2010; Trenkle 2014; Burkett 2006). Accounting for the value of the oceans in USD, for example, does not make oceans more respectable or more valuable for capitalism and patriarchy. Instead, it makes them quite comparable to the much higher monetised value of financial assets held by wealthy countries and corporations. Capitalism-patriarchy-oriented valuations do not account for the fact that without alive oceanic ecosystems, human societies cannot survive (Eisenstein 2016; Burkett 2006).

We always need to bear in mind that quantification and measurement are, within certain frameworks, linked to violence (Graeber 2011). Non-quantification and vagueness might also be linked to violence. For example, not measuring medicine quantities used for treatment or avoiding measuring, even in approximation, the quantities of water, soil, seeds and labour used in cultivation might lead to dangers unsuccessful medical treatment and lost harvests. It is important, therefore, to take into account the context of each social relation, the character and aim of each use of quantification and the specific conditions of the beings and social relations that quantities are supposed to represent (Espeland & Stevens 2008; Olsen 2007).

3. SSE initiatives that do not use official currency

Within this general framework, the paper focuses on SSE activities that do not use official currency or use it to a very limited extent, which for the purposes of this paper I call "non-mainstream modes of production, transaction and distribution". Some of those ways of production and distribution arrange productive efforts in ways that allow people to organise their production collectively and to share their produce among themselves and with other people. In some cases, the sharing takes place without asking immediately for any reward. In other cases, the contribution back to the community or to the people who offered their produce and effort, is arranged to take place according to rules which allow variability of the new contributions. The quantifications used by SSE initiatives that avoid official currencies is one more example of social movements wanting to redefine values in ways that do not harm nature and human communities (Daskalaki et al 2018; Sotiropoulou 2016b, 2017).

The types of the activities examined are the following: Parallel currencies are those accounting units that are created by the users themselves and they are used in their transactions instead of the official currency. Time banks are a type of parallel currency where the accounting unit is an hour of time, irrespective of the content of the work involved. Exchange networks are collective arrangements where people transact without the use of a collectively set accounting unit or without the use of accounting unit at all. Free bazaars and free networks are initiatives where people give to other people things that they do not need and they take things they need. Solidarity structures like social kitchens, clinics or educational initiatives are those which produce and provide for free necessities like food, healthcare and education, through collective arrangements of people who work together to make this provision possible to their communities. Similar organising is used in collective cultivation groups, where people cultivate land together and share their produce in the same manner (Sotiropoulou 2012a; 2016a; 2016b).

There are also other solidarity activities during emergency situations, like grassroots efforts to support refugees and people who have been affected by severe disasters. In this latter case, the effort is not strictly localised by definition, as resources and support need to be mobilised from one area or region to another.

4. Quantitative tools that are available for SSE that does not use official currency

It is understandable, when the discussion or debate is about SSE, that decision-makers first demand to know the economic volume of the activity. By asking about economic volume, they usually expect numbers in official currency. Decision-makers got accustomed to use GDP as the main way to understand the economic activity and prosperity of a society. Therefore everything needs to be related to GDP and some other basic indicators, like poverty line, unemployment and employment rates (Waring 1999; Anielski 2007; Colman 2008). In that way, SSE is forced to be reduced to those same indicators in order to become a "legitimate" topic of public discourse.

As it has been explained in the previous sections, the problem is that GDP, unemployment rates and other indicators of capitalist-patriarchal valuations are inherently flawed. This means, that SSE is incorrectly assessed in quantitative terms, because its participants do not seek profit or even if they do (like a small farmer trying to sell her fruit in a parallel currency market) this is actually subsistence-oriented. Subsistence orientation of profit making means that the producers might make a profit that will be invested in her own and her family's survival, just like small farmers do, even when they appear to "seek profit" in an official/capitalist money market (Bennholdt-Thomsen and Mies 1999). The reason is that SSE includes activities who aim to social reproduction and not to accumulation of capital. Not accumulating capital in a capitalist-patriarchal economy means by definition less value assigned to the labour of the people involved in the activity, less income for them, and less share in the GDP.

This is even more acute in the case of SSE activity that is done without monetary (in official currency) or any other reward, because their work is both reproduction work and not monetised. Moreover, using official currency units for accounting activities that do not use official currency or they are structured beyond the strict rule of immediate and/or exact remuneration/reciprocity, distorts both the understanding of the economic

activity and the researchers' ability to support or cooperate with SSE practitioners. This becomes an even bigger issue especially when the practitioners ask for expert support or when they want to negotiate with authorities and decision-makers.

What the SSE activity that does not use official currency can teach us, is that we can avoid the impasse the ecological economics have created for itself. We can start valuating and quantifying our SSE activities starting from what we think is of great value to us, to nature and our communities. We can definitely think of quantity and measuring in ways that respect our principles and serve the aims of the activity itself. That does not mean that all grassroots SSE initiatives are always successful in avoiding mainstream quantification and injustices. It does not mean either that non-mainstream quantifications alone are enough to shield SSE from exploitation practices and unfair valuations from being reproduced under the umbrella of non-profit seeking. However, grassroots SSE initiatives include a wide range of economic activities where other, more socially and environmentally just valuations and quantifications can be tried, experimented with, refined, critically assessed and improved.

Accounting or measuring in official currency can only be a tool for comparisons, because the mainstream economy where the official currency is used, is full of inequalities and exploitation structures. For example, we can compare prices of economic activity in official and in parallel currency to check whether parallel currency schemes provide the benefits they aim at. This is an approach that is used very effectively to check the purported benefits of nature-friendly practices when performed in a capitalist setting (Seyfang 1997; Konstantinidis 2018; Sotiropoulou 2015a).

Nevertheless, many aspects of the SSE activity without official currency cannot be perceived through currency terms at all. The value of food donated to a social kitchen by people who cultivate organically not for selling but for their own consumption, cannot be assessed in market terms. Participants in my research kept telling me that they stopped considering the mainstream market for their produce because their produce was such good quality, that they had to either sell it at a very high price, accessible to very wealthy customers only, or sell it at bulk prices corresponding to much lower quality products. As a consequence, they preferred to distribute their produce as a gift or within grassroots SSE networks.

Another example is the effort contributed by participants to their group and to the initiative they are part of. How do we understand this effort in terms of quantity? Using hours would give us one important but quite reductionist tool, especially because a lot of grassroots work is done in parallel with other activities of each participant. No doubt, a time-use survey is yet to be done concerning this economic activity. What about the character of the effort contributed? Being involved with a grassroots economic initiative might entail not only contributions in kind; but also labour of all types, plus "political work" to keep the initiative running, attend assemblies or negotiate with other members, other groups or local authorities; and emotional-affective work, which exists in all types of human activity, but in this case, given the heterogeneity of backgrounds of the people involved, it is increased and intensified (Sotiropoulou 2016a).

Several types of labour being performed at the same time have been one of the major setbacks or accounting problems of time-use surveys (Budlender et al 2008). Additionally, the people in grassroots SSE initiatives understand time in various ways,

linked to seasonality of production or to the variation of life cycles. In most cases this understanding diverges from the mainstream (capitalist) perceptions of time. Quantifying SSE labour in terms of hour-time does not make justice to those various grassroots approaches and to their understanding of time. It does even less justice to the physical and mental exhaustion such involvement brings. Much less does it appreciate the skills needed in order that a person be effective and well-coordinated with the other members of the group. We cannot reduce an entire production and distribution process or mode into one of its aspects only, even if this aspect is as important as time.

The efforts of creating quantitative tools for assessing local and/or indigenous well-being can be a very good source for SSE to get ideas from. It can be one of the tools to be used in order to assess whether for example, a social clinic has truly helped the local community's health conditions without deteriorating the living standards of the health workers who might perform two work shifts (one in paid job, one in the social clinic) in order to keep the people in their communities healthy. Quantifying well-being is not something that I do not see with reluctance, given that the general social-economic framework is capitalist patriarchy. Moreover, given the specificity of the SSE initiatives, each one of them would need certain only, and possibly adapted, quantity-approaching tools rather than the general community well-being tools that have been constructed without having SSE in mind. However, there is a lot of potential in those approaches, if not for other reason, but for examining whether the use of each indicator led to better decision-making for the people whose life aspects are represented by a specific well-being criterion.

5. Explorations in appropriate quantitative methodology related to SSE initiatives

I share the critique against the mathematisation of economics and how the quantification of social sciences has distorted not only the data analysis as such but also the formulation of questions of social research. Therefore, the qualitative methods and the anthropological or ethnographic approach of this economic activity seemed appropriate, and it still is adequate and necessary for researching the SSE. Qualitative methods revealed a quantitative world that does not exist in economic textbooks and when a glimpse of it exists in anthropology or other social sciences, it is marginalised as non-economic or, if economic, as non-quantifiable in economic terms (Waring 1999).

However, qualitative methods themselves are not enough. This I learned very early in the field because the issues of methodologically and conceptually understanding quantity in grassroots initiatives appeared from the very beginning in my research. The lack of a related debate in parallel currency literature and the under-researched field of contemporary non-monetary economic activity just made my quest even more difficult.

The more I am working on this field, the more I am persuaded that there is a dire need for appropriate quantitative methods. With appropriate quantitative methods, I mean methods and approaches to research quantitative aspects of the activity under examination that would reflect the realities of the grassroots economic initiatives themselves. Those approaches and methods would (or should) also be useful for the communities themselves to use in case they want to have a better picture of their own activity and answer their own questions with or without mediators from academia.

After a lot of reflection I decided since 2009 to follow the path of quantification and measurement that my research participants were using. That was a very tricky path and the decision did not make the research any easier, quite the opposite: it left it and me without quantitative tools to use, and with amounts of data that might mean a lot or not much, depending on the quantitative analysis one can do out of them. What this decision made clear though, has been the variety of approaches and ways of thinking that people involved in non-mainstream transaction and production modes have to understand quantity (Sotiropoulou 2012a, 127-68, 169-244).

As interim solutions, I opted for

- a) The creation of a questionnaire survey for my PhD research that asks questions about quantitative aspects of the grassroots economic initiatives, in ways that the participants themselves had depicted as meaningful. The survey (in Annex C of the dissertation and available online) gave back 331 filled-in questionnaires (Sotiropoulou 2012a, 169-244, 315-36).
- b) The collection of price data from the open markets of parallel currency scheme for about 17 months. I did the price data collection myself. I was also trying to specify the amount of hours people needed to produce what they were selling and whether they needed other inputs, especially inputs from the mainstream economy (Sotiropoulou 2015a).
- c) I also started "following" the quantities as "taught" by the participants and developed practices of counting in many ways and understanding quantity in various manners. This gave me a variety of data and examples of methodological ambiguity. It also persuaded me that there are no ready-made answers and solution, therefore I needed to reflect and study more on possible quantitative tools for the SSE activities.

5.1. The case for fuzzy statistics and non-linear, fractal approaches to grassroots economic activity

Seeing my research to lack effective analytical tools of quantitative nature, I turned into exploring the possibility to use fuzzy statistics or fractal mathematics. One reason is that understanding quantities as those described in this paper was impossible though the mainstream economic quantification tools that are based on official currency monetization of the economic activity. Those same tools required precision in that same official currency and other quantities (like the weight of the produce allocated through the grassroots initiatives) that was impossible to acquire as data. In most grassroots economic initiatives precision is used in a completely different way than the mainstream economy. When needed, precision is discarded, particularly when the aim of the transaction or the aim of the initiative will get compromised by the quest for precision, like it happens with free bazaars or collective cultivation projects.

The other reason is that the economic impact of each of the activities examined here needs to be explored not as a fraction of GDP but as linked to the aims of the grassroots initiatives themselves. Consequently, one cannot use linear-structured approaches to economic quantity, because the aims of each initiative might be different. At the same time, each initiative might have several aims that the use of quantitative perceptions by the initiative members try to achieve without discarding any out of them. Risk of every economic activity for nature and communities is one of the major impacts that one should also always account for, as well. Fractal mathematics in combination with fuzzy

or vague data could help to check whether an economic activity or phenomenon entails risks for its actors or for the environment while having a focus on the other productive aims of the activity. It seems that grassroots economic organising is very risk-aware (at the end of the day, they organise because they face risks in the mainstream economy) but economics has not integrated this awareness on methodological level yet (Zadeh 1965; Smithson & Verkuilen 2006; Taleb 2010; 2012; 2018; Mandelbrot 1983; Mandelbrot and Taleb 2006; Lilly 2010; Mandelbrot and Hudson, 2007).

For example, the fuzzy number of "about 200 families" provided by the grassroots initiative members as the number of people who receive a meal everyday by a social kitchen does not represent the chances those meals give to people to stay alive and healthy, to go to work the other day after their unemployment spell, or, to keep their kid healthy enough to go to school. To all that, one would add the social bonds being re-negotiated in the community and the mainstream and non-mainstream economic activity that becomes possible because of people working in grassroots SSE. At the same time, one would "account" in some way for social groups that might be excluded or perhaps exploited because of mismanagement or structural discriminations that the mainstream economic quantitative methods are not anyway fit to capture. Whether they participate in a grassroots group or they are excluded, this has important implications about the economic impact of the activity and the realisation of the aims of the group.

Nevertheless, one would consider to use fuzzy data hypothesis testing in case one would like to work with grassroots initiatives in terms of collective decision-making. In other words, hypothesis testing as it is usually employed in economics will not work properly to understand phenomena outside the mainstream economy, about which there are not adequate official nor extensive statistical data. It is not possible at this stage of knowledge in the field to form hypotheses that would represent a valid question to be refuted or to be possible to be refuted. Yet, there is a possibility to use fuzzy statistics for decision-making through hypotheses that would check constraints or possibility of important problems that a decision can be linked to (Grzegorzewski 2000; Wu 2009; Filzmoser and Viertl 2004). In that sense, the risk factor, and even more the unknown risk factor is something that would need again to be taken into account, especially because the grassroots communities have no luxury to experiment with the limited resources they have available. This is also one of the reasons that the use of sophisticated quantitative methods is not easy to be done without a well-founded reason that would be justified by the community's request and anticipated benefit¹.

All this information is lost if we use the formal statistics/quantitative tools that economics offers today. The first reason is that the equilibrium models used in economics cannot represent any notion of complex ever-changing social systems. The second reason is that people are not machines, and nature is not a mechanical

¹I am very critical with action research done on the initiative of researchers. Only when there is a request for collaboration where the communities themselves want to create a change or experiment with an activity, the researcher can suggest changes or experiments that the community can undertake. Even in that case, the community should not be burdened with gathering data that they do not need for their purposes but the researcher needs to show off that she/he employed a sophisticated research method. In other words, researchers need to employ certain methods only when it is appropriate, necessary. Researchers also have to choose the least burdensome solution for the community who wants to pursue some improvement goals. This does not create a load of research outputs the way academic community might wish for but it creates a long-term relation between academia and communities based on respect and cooperation.

environment either. That means, their interactions cannot be represented with the mechanistic models used in mainstream economics (Taleb 2010; 2012; 2018; Mandebrot and Hudson 2007; Burkett 2006; Georgescu-Roegen 1971).

6. Discussion: Unsettling findings demanding new methodological pathways

In reality, what the non-mainstream grassroots economic initiatives aspire to is to make sure that people have access to goods and services that are fundamental for their physical and social survival. It is not a coincidence that the membership in the initiatives represents individuals in appearance only: behind and beside every registered member, there is a household and more than one interconnected households of family members, relatives, friends and neighbours.

In terms of class position and gender, most of the people are low or very low income, women are more numerous than men, and the educational level is high. In terms of ethnic background, some initiatives have an extended participation and contribution by people who do not originate in Greece. Other initiatives seem not to have attracted many people who originate in other countries, although all (with no exception) initiatives state explicitly that they welcome all people irrespective of origin, language, religion or other background (Sotiropoulou 2012a, 81-126, 169-244; 2014a; 2016a)².

In this type of economic activity people prioritise food production, healthcare, education. Cultural activities also exist and are very much cherished but it seems that the priority and the major part of the collective effort is directed to cover what we usually call "necessities". By "necessities" it is meant the basic reproduction work that will make sure that the people involved will survive as both biological and social beings in a protected ecosystem, while having their efforts and skills appreciated, used and developed (Sotiropoulou 2011a; 2016a; 2016b; 2015b; 2017).

Under the harsh conditions created by the enhancement of neoliberal policies in Greece, having social clinics shows clearly how different quantifications work in different economic settings. In social clinics healthcare is provided without asking for the ID card of the patient³ and the strict measuring is used in the amount of medicinal

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² It is a huge question how and why some initiatives are more mixed in terms of origin of people and some are not. I associate the differences in the structure of each initiative to the quantification each activity entails. It is more common to see an active policy to translate main documents and announcements in several other languages than Greek in initiatives like free bazaars and solidarity initiatives like social kitchens and social clinics rather than in parallel currencies. It is also obvious that the rules of each activity prevent many people with immigrantbackground from participating. For example, the people who are unemployed immigrants, and in danger to be arrested by the police for expired residence permit, cannot practically register with a parallel currency, even if they want to. They however, can participate in a bazaar or collective cultivation or a social kitchen, where registration is not needed.

³ Social clinics have been grassroots SSE initiatives that provide health care to immigrant and refugee patients who have no access to the formal healthcare system. Although doctors in public hospitals have stated that they deny to give information about patients without residence permits to the police, the law is harsh (and with racist connotations indeed) and literally sends all undocumented migrant patients who might be found out to the police stations or even worse, to concentration camps. Social clinics, by not asking for IDs provide some safety to the migrant patients, although, unfortunately, they cannot provide the full range of healthcare that a patient may need. In Greece, even people who have lived in the country

substances for treating a condition but not in calculating the cost of the service provided. This is a materially expressed reversal of both capitalist patriarchal valuations but also of the entire mainstream concept concerning where quantification is important to be used and where it is not. The services of social clinics or the free sharing of traditional seeds have been assigned a price of zero in SSE activity, but their values are thought to be beyond measure. Actually, the zero price is a signal that measures are not enough in some cases, for example, in ensuring a stable harvest and sound ecosystem or in supporting people's health (Sotiropoulou 2016a; 2017).

In many cases, even in parallel currency schemes, but also in other SSE initiatives where precision of measurement is less used, we find people exchanging with "generous measures". They rovide more quantity of the product offered, or they perform non-monetary exchanges or gift-giving in parallel to an exchange (Sotiropoulou 2011a; 2012a; 2012b; 2015a; 2016b).

Grassroots SSE activity shows that we cannot use capitalist patriarchal understandings of quantity, much less of value, and be able to reproduce effectively ourselves, the people around us and nature. Grassroots measuring practices are re-negotiated all the time to cover everyday needs, to face hardships or to experiment with new economic arrangements. In addition, digital technologies that did not exist some decades ago may facilitate a practice that existed but was invisible (at least to mass media and researchers), or may engender new or modified practices. In other words, we witness new quantity approaches in the making, and possibly new approaches in machine use, that are yet to be explored in both practice and theory (Sotiropoulou 2011b; 2012b; 2014b).

This is the reason for which we need to start our quantitative methodological exploration from the way the SSE initiatives think and act. This is necessary especially if we want to support those initiatives with our research and/or enable the communities to conduct the research they want, with the assessment criteria they think of as important and meaningful.

This need becomes even more urgent if one takes into account the fact that SSE initiatives, even the most grassroots and far-from-mainstream ones, have to tackle serious issues arising from their activity. One set of issues refers to replication of capitalist ideas, perceptions and practices within the initiatives, despite of the good intentions of the participants to avoid them. Examples are the transfer of mainstream economy pricing levels into parallel currency schemes, or the replication of devaluation of food production even in initiatives that do not assign any prices on their activity (Sotiropoulou 2015a; 2016a).

In all initiatives, the class position of the people who participate is not easy to be superseded or hidden as an important factor that defines the chances of each person to participate in the initiative, and much more to cover their needs through it. Very low-income people might not have any means of production for them to be able to participate in any initiative, or the best participation they might be able to perform is to be receivers in a sharing initiative, like a bazaar, a social kitchen or a social clinic. Even

for many years lose their residence permits if they stay unemployed for some time, and, as a consequence, become undocumented migrants without full access to healthcare.

if this participation is not inhibited, low income people end up to be more or less trapped in one more economic situation of underpayment, precariousness and absolute poverty (Sotiropoulou 2012c; 2015a; 2016a).

Another set of issues is the patriarchal violence that emerges in SSE initiatives and is expressed not only in (rare) violence incidents, but also in production or sharing/transaction arrangements that are at the expense of women, of people who originate outside Europe, or other social groups who are subordinate in capitalist patriarchy. Other ways of measuring can also become ways of exploitation that existed before or in parallel with capitalism – and this is something that research participants, in particular the older ones, pointed out (Sotiropoulou 2013; 2016a; 2019).

A third set of issues are those who would exist even if, in some way, capitalism and patriarchy disappeared all of sudden. For example, if someone goes to a free bazaar and sweeps most (in-good-condition) stuff, this in reality prevents other people who might just need one or two items from covering their needs. The same behaviour becomes even more problematic if it happens in a social kitchen, where someone might sweep one of the shelves full of packs of food (like pasta, rice, beans) that were meant to be cooked for the next week. In those cases, the problem, as defined by the participants of the initiatives, is not that someone takes without giving back or takes without asking for permission - the problem is quantity itself. Those incidents of massive appropriation have a completely different quality from appropriating the absolutely necessary. The problem is directly linked to the essential quantities (how much one needs, how much one takes) of the activity.

Even if one wanted to leave the activity develop without quantitative analysis, wishing to refrain from quantifying solidarity and community spirit, one cannot avoid encountering with issues like those described in this section. It is one thing to analyse discourse that might be well-intentioned and reflects aims and wishes of the grassroots initiatives. It is another thing to analyse how much work women and men do respectively in an initiative or whether food producers keep being underpaid in a parallel currency scheme, despite of the principles of the initiative.

7. Directions for further research

For the critical work that needs to be done by both the SSE communities and the researchers who work with them, quantity is an absolutely essential aspect that needs to be taken into account, just like qualitative aspects need to be taken into account in a quantitative analysis. It is very important therefore, to provide more tools to the SSE initiatives themselves but also to researchers who do research about this type of economic activity, exactly because we need to address all those issues emerging from the activity, whether positive or problematic.

This cannot be done by one researcher only, not only by academia, but through a collective effort where the SSE initiatives will have the leading role, in defining which quantities are important to them and what other quantities they would like to be able to know for achieving their aims. Economics is just one discipline among many who could have a role in this methodological quest. Other social sciences, humanities, environmental and life sciences, mathematics, physics are able and are needed to

provide ideas, experiences and quantitative tools that could be used in SSE, probably after adaptation and modification.

Finally, it is important to take into account that not all quantitative tools are appropriate for all SSE initiatives all over the world. The national accounts system showed this. The "one size fits all" approach leads to injustices and misrepresentations, if not to neocolonial mismeasurements that benefit those who hold more economic power. Therefore, appropriate quantitative methods for SSE would have variety in form and approach and would be relevant and useful to each community or SSE group. This paper is part of the debates described and it gave examples of in-the-field activity with intention to contribute to this needed methodological plurality.

Acknowledgements

I am grateful to Prof. Marilyn Waring (Auckland University of Technology), Prof. Wendy Olsen (Manchester University) and Prof. Andriana Vlachou (Athens University of Economics and Business) for their encouragement and their advice on literature, as well as to two anonymous reviewers who provided insightful comments and advice on a previous version of this paper and the Editors of this Special Issue of the Review of Economics and Economic Methodology. Part of the data used in this paper have been acquired through a research project titled "Covering immediate needs with solidarity economy and redefining the role of trade unions", conducted for the Labour Institute of Athens (2012-2013), and through the author's PhD project funded by the Operational Program 'Education and Lifelong Learning' of the National Strategic Reference Framework (NSRF); Research Funding Program 'Heracleitus II. Investing in knowledge society' (2009-2012) through the European Social Fund.

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